

# Horndean & District Amateur Radio Club Journal

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**HDARC new Caravan**

Hordean & District Amateur Radio Club  
Founded in 1975

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Articles, letters of interest, photographs are always needed and should be sent to the Editor :- Sean Grant 51 Winchfield Crescent Havant PO9 3SR Tel : 07429639890 & Email : M3SGO@Hotmail.co.uk

It would be appreciated if submitting typed script that it is of good quality bold lettering. This allows me to scan it in direct. Saving me time retyping. Copper plate handwriting most acceptable. I use Microsoft Publisher 2013 to produce the journal so am happy to accept articles/photographs on a CD providing it is compatible and can be read in Word. If you require the material to be returned please enclose a SAE. Opinions expressed in the journal are not necessarily those of the HDARC. The editor has the right to reproduce the articles for our affiliated club journals/newsletters. The Editor decision is always final.

**Closing date for next journal is : 3rd of July 2017**

## Editorial

Hiya Folks

Hope everyone is well .



Well it's been a busy few months at the club with exams and skittles evening and I hope to have more details on those events in the next journal.

We are getting to the busy part of the year for special event stations etc. I know the first one will be in June so get your names down for availability to Chris our station manager (details in our contact page) .

Also I'm sure everyone would have heard we have been donated a new(er) caravan (see front page) and we will need help kitting this out and scrapping the old one. Again if you can help please contact a committee member, so we can get on with the conversion.

Rob M0RZF has been making progress with the long running WEBSDR. Ok it's still in its early stages but it's being tested as you read this. The plan will be to put it up at the fort and it will be accessible to all the club members. If you have any skills or would like to help with the project, contact me (project manager) or Rob if you can help out.

Oh just a reminder, I'm still looking for a new journal editor. Again if you think you would like to take over as the new journal editor please come and speak to me, and I will explain everything to you.

Anyway I think that's all folks, take care until next time

73

Sean M0XAN  
Journal Editor HDARC

## **The radio amateur - part 2      by Doug G4BEQ**

Radio amateurs are qualified radio operators. They are enthusiasts who have passed the necessary examination in radio theory and practice which allow them to hold a transmitting licence. The licence allocates a call sign, lists the rules under which radio amateurs are allowed to transmit. This includes the permitted frequencies - there are 25 bands of frequencies available, depending on the class of licence held, covering the short waves, VHF bands and Microwaves. Transmissions can be made in Morse code (cw), speech, electronic data and television pictures. They are not allowed to broadcast music, commercial or political messages. Radio amateurs are the only users of the radio spectrum who are permitted to build their own transmitters. This is because they are exam-qualified. Most amateur radio stations have a mix of home-built gear and commercial equipment.

In the 1920's amateurs were allowed to use frequencies that were thought to be unusable or of little value commercially. We all have a lot to be grateful for as it was these pioneering amateurs who, through their efforts and experimentation, opened up the air waves to what we know them today. Nowadays the BBC's overseas service is the envy of the world of broadcasting. However, the origin of short wave broadcasts belongs to Gerald Marcuse G2NM, who started his wireless experiments before World War 1. He first came to the notice of his contemporaries when he maintained contact with the Royal Geographical Expedition in Brazil from his home in Sussex. A remarkable achievement in the 1920's. His early work was carried out using CW, but he soon became interested in the value of broadcasting speech and music overseas. He obtained a special licence from the then GPO to experiment on these lines. He was soon to be heard all over the world on 32.5 metres. He called his transmissions the "Empire broadcasting service". Having proved to all that it was possible to transmit across the world, it had never been done commercially, and the Government stepped in and closed him down removing that part of the radio spectrum from amateur use. The right to this frequency was handed over to the BBC, and hence the Overseas Service. Amateurs were also banned from transmitting music, and other regulations were introduced.

Anyone who passes along the South Coast in the future should go into the church yard at Bosham. There is a plaque there in his memory. (Inside the Church is also the tomb of Canute's daughter. He never did get the tide to stay out!)

There is also a lot of the equipment, which Marcuse used, preserved at the Chalk Pits Museum, Amberley in Sussex. Each year the Chichester Club used to obtain a special broadcasting license to work the world over a weekend, usually in July to remind people of his great contribution to radio broadcasting. In 1932 the RSGB contacted the armed services and suggested that it might be prudent for them to develop volunteer reserves of radio amateurs as they would benefit enormously from this body of trained operators. The RN responded immediately and formed the Royal Naval Wireless Auxiliary Reserves. The RAF finally responded in 1938 and formed the Civilian Wireless Reserve: the Army never did get round to it. Hence when war broke out the Navy and RAF was well placed to immediately expand their communication ranks with these trained operators who had already been indoctrinated into service requirements.

The BBC recently produced a series on Bletchley Park and in it they showed how the Enigma codes were broken. What was not shown was that all radio transmissions originated by the Germans were constantly monitored. This was a huge task and here again the radio amateur was used. At the start of WW2 there were some 4000 amateur licences issued in this country. Many, as previously explained, had offered their services to the Reserves and were obviously some of the first to be called up. Many were retired or in reserved occupations. Lord Sandhurst, who was in fact a radio amateur, was given the task by Churchill to set up the radio monitoring service to listen to all enemy broadcasts. He immediately recruited all available amateurs not in the services, as Voluntary Interceptors. (V.I.'s). Like the Bletchley Park personnel they were required to sign the Secrets Act and were committed to secrecy for life. The advantage of this system was that they were spread the length and breadth of the UK. Radio propagation being fickle meant quite often signals could be read in London but possibly not in Cardiff or Glasgow etc. With the V.I.'s so widespread it meant that a signal would always be read regardless of the conditions. Those V.I.'s in reserved occupations would, on returning home from the days toil, retire to their radio room and spend several hours of day/night listening and logging all signals heard. These would then be sent to Box 25 Barnet, a collecting point for Bletchley Park. There was a security problem for the V.I., everybody was doing their extra bit in some way or other, neighbours wanted to know why they were not in the Home Guard or doing something like Wardens or fire watching at night. In some cases their employers' were suspicious. In one known case a V.I. was marched off at revolver point to the local army camp as

Morse signals had been heard coming from his house. In such cases Box 25 in Barnet had to be contacted to smooth the waters. Radio amateurs are frequently called upon to assist in times of disaster. Their compact and simple equipment is frequently more flexible in an emergency than today's complex commercial gear. Help has been provided at earthquake sites, train disasters, plane crashes, the list is endless. During the Falklands war amateurs on the Island were in constant touch with their friends in England and passed on much vital information. Amateurs in this country at that time had direct phone contact with the War Office so that information could be passed both ways. Amateurs were the first to bounce signals off the moon and have designed and built 25 communication satellites. Astronauts and cosmonauts, including our own Helen Sharman, frequently operate amateur radio stations from space. Many schools, aided by radio amateurs, have been able to talk directly to space using amateur gear.

At this moment in time, there are three types of licence available Foundation, Intermediate and Advanced. Most local radio clubs run courses to assist those wishing to obtain a licence. The Foundation Licence was introduced in 2002 and designed as a means for entry into the wonderful world of amateur radio. It allows a beginner to put "a toe in the water" as it were. Having experienced the hobby they can then progress up the ladder to an Advanced licence. Prior to the introduction of this form of licence amateurs were required to sit a City of Guilds exam.

On a personal note I first became licenced as a "ham" in 1969. I had dabbled in that area several years, mainly abroad, before but had never taken my exam. What made me take the plunge was my enforced 2-year stay in Haslar hospital where my body was used for medical experiments, that is what it felt like... Near the end of my first year there I was informed that the very best I could hope for was a permanent seat in a wheelchair. On receiving this news I began to consider what my options were now that it appeared all active leisure pursuits would be out of my reach. It was then I thought of amateur radio. I could sit in my wheelchair and work the world, meeting all sorts of interesting people, letting my mind wander across the airwaves and forgetting my disability. I wrote off to the RSGB and asked them to supply me with all the information on how I could obtain my licence. They sent me a wealth of information and also supplied me with the books I would need for my studies. When I had prepared myself to the standard required to sit the exam they arranged special dispensation for me to take the exam from my hospital bed. Being a Boatswain of course I

beat the system and finally, after two years, was able to walk out and get back to normal fitness. However, I was now a fully qualified radio amateur with an A licence. My only regret was that I had not done it years before. For the remainder of my time in both the Royal and Merchant Navy I never went anywhere in the world without an amateur waiting for me on the jetty. I would always work the next port of call and make this arrangement. On arrival I would be taken home, entertained, and given full use of that person's radio equipment. Two things would now happen. Firstly I would call up a near neighbour of mine, a fellow amateur, Wally G4DIU being one, and tell him where I was etc. He would give my wife a call so that we could update each other on the latest news: much better than letters and far more personal. Then I would put out a call to the next port the ship was calling at to fix up similar arrangements there. It never failed. In the same way of course I extended the same facilities to fellow amateurs from all over the world.... and still do.

One of the great joys of amateur radio when in touch with another is the use of Christian names only throughout the contact. You never know who you are talking to; it could be a King or a road sweeper. The only way you can establish who owns the callsign is to look the details up in the Call book (or qrz.com these days). Even that is no guarantee as you can, by request, ask for your details to be withheld. Two incidents stand out in my mind as an example of this: I was travelling through London by car and got hopelessly lost. Putting a call out on my radio I was answered by a man who told me his name was Brian. He patiently talked me through London, intermixed with general chat of interest to us both, and even invited me to call into his home for a cuppa, until I declared I was quite happy and could now proceed without further problems. It was not until sometime later that I decided to look his call sign up in the book. It turned out to be Lord Rix, the actor. At no time did we ever discuss our professions as it was of little interest at the time. On another occasion I had regularly worked a fellow amateur who lived just south of Banbury. Our contacts were always made using cw. I happened to mention on one occasion that I was motoring up to see my parents in Rugby which meant passing through Banbury. He invited me to call in on him on the way and told me he was in one of the Lord Cheshire Homes. On arrival at the reception I was taken into his room and was amazed to see him in an iron lung. He worked his Morse key with one of his toes. Local amateurs had rigged up all his equipment so that he could still go on air despite his obvious restrictions. At no time in

my many contacts with him had he mentioned his disabilities. He told me whilst I was there that amateur radio had kept him sane as he could "talk" to the world and quite often imagine he was there when others described their surroundings. That really was a moving occasion. Amateur radio is a wonderful world and its members are some of the most friendly that it's been my fortune to meet. I have often thought that if the world was run by Radio Amateurs it would be a very peaceful place. An example of this friendship extended by amateurs to each other took place some years back. It was my routine on leaving RNB Portsmouth to operate "mobile" from the car on the journey home to Horndean. It quickly began a routine to talk to a German amateur who was travelling to his home at the same time in Hamburg. Our journeys coincided in time and distance. On one occasion he mentioned that the audio of my transmitter was becoming intermittent. I knew that would be caused by the output valve becoming soft and mentioned the type that I was using, saying I would have to purchase a new one as I did not have a spare. On arriving home my wife handed me a package and said "one of your ham friends has just left this for you". On opening the package it was the valve I needed with a quick note telling me he had been listening to my conversation and knew I needed it. Needless to say I rang him up as he lived about a mile from me and thanked him. There was no question of payment as it is quite normal to help each other that way when only small items are concerned. On that point, if you are thinking of taking up this superb hobby, join your local radio club and get to know your local amateurs, they will be more than keen to help you in your quest to get a licence. Quite a lot of clubs even have radio equipment they lend you until you decide what you need for yourself. So if you are considering taking up the hobby whilst you go out to weed the garden I will go on air and have a chat with a fellow ham in South Africa. No phone bills to pay or a chance of going blind spending too much time on a computer sending emails.....more personal as well.

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**I ATTRIBUTE MY SUCCESS TO THIS:  
I NEVER GAVE OR TOOK ANY EXCUSE.**

**FLORENCE NIGHTINGALE**

## Portsmouth: Harlots, Dung and Glory Part 2

At the club meeting on February 17th, local historian Andrew Negus, once again visited the club to give a continuation presentation on the history of Portsmouth, this time from about 1760 to 1860. This is a very brief account of his talk, and I am very grateful to Andrew for allowing me to use his slides to refresh my memory of the talk details. Thank you to Mick G3LIK for the photo of Andrew.

He started off by reminding us that Portsmouth is the only island City in the UK. A lot of the history of the city is concerned with defence of the island and its surrounding area. In 1770 Hilsa Lines formed the defence barrier from the North, and the forts along Southsea and Old Portsmouth, such as the Round Tower, Square Tower, Southsea Castle, Lumps Fort, Eastney and Fort Cumberland formed a defensive line along the South part of the island. At this time most of the population was in Old Portsmouth, Portsea, and the Dockyard area. Andrew showed a map which indicated that Old Portsmouth and Portsea were separate islands with very limited access on/off.



About this time the Camber Commercial Port area was developed. Spice Island was the area renowned for entertainment of all kinds, and boasted 44 pubs, but living conditions were appalling, with no sewerage facilities, and no fresh water. Typhoid epidemics were common. Despite all this, Portsmouth Dockyard and its workers created a Navy that defeated the French in the seven years war 1756-63.

The British Empire in 1780 consisted of the UK, Canada, some Eastern USA states, a Caribbean island, a small part of West Africa, and Southern India. Portsmouth Commercial Port developed increasing trade with these countries. The start of international trade in the UK.

Andrew then highlighted some of the characters associated with Portsmouth:.....

First of all was someone called James Aitken, also known as John the Painter. He was a Scot who performed acts of arson in various Royal Navy Dockyards in 1776-7, and this included Portsmouth. This was during the American War of Independence and Aitken was allegedly acting on behalf of the American revolutionary government. Luckily, no significant damage was caused to Portsmouth Dockyard buildings. The act of arson against the Royal Navy buildings was a capital offence, and John the Painter was subsequently captured, and executed by public hanging in 1777.

In 1787, the First Fleet sailed to Australia. 13 ships (known as The Hulks) took nearly 8 months to transport the first settlers to Australia. Some of the ships contained prisoners being transported to the penal colony in Tasmania (Van Dieman's Land). A memorial of two large metal interlocked loops (see left below) by the Hot Walls in Old Portsmouth commemorates the First Fleet. There is a similar 'Bonds of Friendship' memorial in Sydney, Australia.



Bonds of Friendship memorial  
in Sydney

Henry Ayers, born in 1821 in Portsea, emigrated with his wife by free passages in 1840, and settled in Australia. He eventually made his fortune from the Burra Burra Copper mines, which secured the wealth of South Australia. Ayers Rock in Northern Territory, Australia is named after him.

In 1800, the map of the British Empire now included Australia and Tasmania. The world-wide importance of Portsmouth Dockyard is illustrated by the fact that it was the largest factory complex in the world, and employed 4000 persons. At this time Napoleon had a great army and was ready to invade Britain. But Britain has the brilliant Nelson, Portsmouth Dockyard and a great Navy.

Andrew then spoke about John Pounds, a shoemaker in Old Portsmouth. John

became a shoemaker after being crippled by an accident in Portsmouth Dockyard where he was apprenticed as a shipwright. He was born in Portsmouth in 1766, and is credited as the man most responsible for the concept of 'Ragged Schools'. These were charitable organisations dedicated to the free education of destitute children in 19th-century Britain. John took such children into his small workshop and taught them basic reading, writing and arithmetic skills. You can see his workshop, which is preserved at the back of John Pounds Church, High Street, Old Portsmouth.

Isambard Kingdom Brunel was born in 1806 in Britain Street, Portsea. There is a memorial to him in St George's Square, near The Hard. He was a very successful mechanical and civil engineer, and one of the 19th century engineering giants. Best remembered for the SS Great Britain, the Clifton Suspension Bridge and numerous other ships, bridges and other engineering masterpieces. He died in 1859.

Charles Dickens, the writer, was born in 1812 at 393 Commercial Road, Landport. His birthplace house is preserved, and open to the public. In 1815, the family moved to London, then to Sheerness and onto Chatham. A lot of his books are based on his early-life experiences. He died in 1870, and is buried in the Poets' Corner of Westminster Abbey.

Ellen Terry, a famous actress of the late 19th and early 20th centuries, had connections with Portsmouth. Although born in Coventry, she was born into a theatrical family, and her parents were comic actors in a Portsmouth-based touring company. She did perform at the Theatre Royal, Portsmouth on at least one occasion.

Andrew then told us about the London to Portsmouth Canal which was operational in 1820. The route of this on Portsea Island was from Milton (Milton Locks) through Fratton (where Canal Walk is now) and onto the dockyard. The canal was abandoned in 1855.

We were shown a photo of the steam-operated chain ferry which operated between Portsmouth and Gosport between 1840 and 1959. Nostalgically the side of the ferry bore the advert 'Brickwoods Sunshine Ale Bright To The Last Drop'.

In 1847, the railway got to Portsmouth. For some of its route through Fratton, it follows the route of the old canal.

In 1850, Portsmouth consisted of four main towns, Landport, Portsea, (Old) Portsmouth, and Southsea, having a combined population of 71,000. The dockyard had 3,000 workers. In Southsea there was an area of marshy land called 'The Great Morass' which existed S of Albert Road. It was not drained

until the late 19th century. The remnants form Canoe Lake today.

Thomas Ellis Owen (1805 – 1862) was an English architect and developer responsible for many of the buildings that still exist in Southsea and Gosport. Owen was instrumental in shaping the development of Southsea during the middle part of the 19th century, developing it from poorly drained farmland into a garden suburb. He designed and built 106 villas and 54 terrace houses in Southsea, including Queens Terrace, Portland Terrace, and Eastern Parade. In addition, he designed a range of commercial, religious, and civic buildings. He was also Mayor of Portsmouth, twice.



Andrew then said that although in 1850, Portsmouth defences were considered safe, Napoleon the 3rd of France posed a new threat. For this reason, in 1859 the building of the Palmerston forts (named after Viscount Palmerston, the then Prime Minister), was commissioned. They were built (and many still remain) along Portsdown Hill to the North as well as the existing Hilsea Lines, Gosport to the West, and those in the Solent to the South as well as those already in existence along Southsea seafront. It seemed as though Fort Cumberland provided just about the only defence from the East side of Portsea Island. The main threat was anticipated from the North, which is why the firing capability of the Portsdown Hill forts is inland. As it turned out, no invasion happened, so the forts were never used for their planned purpose. They are therefore referred to as 'Palmerston's Follies'.

The main road into Portsmouth was next shown. Andrew showed a diagram of the 'new' Portsbridge from 1880 which carried road traffic, and the way it could be re-positioned to effectively isolate Portsea Island in the case of any invasion. Another bridge was built at Port Creek to travel over the moat surrounding that part of Portsmouth, and this was used by the railway. Port Creek is a tidal waterway that runs between Portsea Island and the mainland from Langstone Harbour to Tipner Lake.

Andrew said he was now up to about 1870, and to find out more it would be explained in Part 3 of his series of talks.

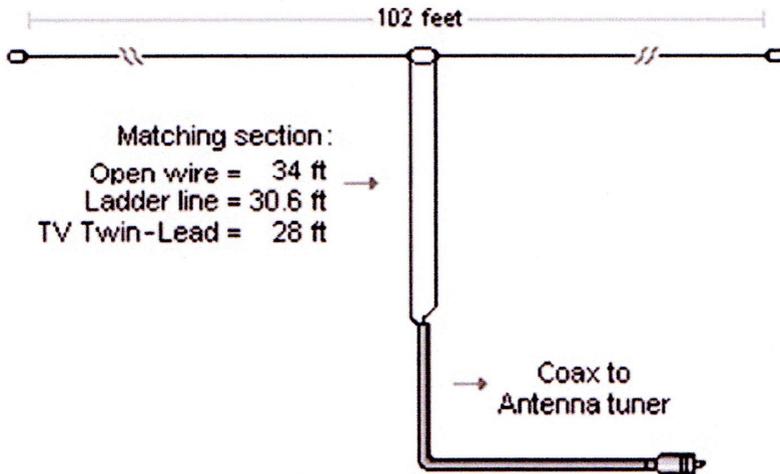
Text by Stuart GØFYX

## The G5RV Antenna.

My experiences and thoughts over 37 years of using this antenna. By Doug Hotchkiss G4BEQ.

Louis Varney G5RV introduced this antenna to the amateur scene in 1946, since then it has become well known throughout the world to all those interested in radio. I have operated one since first becoming licensed, albeit along the way I have also tried/played with Verticals and Magnetic loops and other "pieces of string". However, the G5RV has always been the main antenna until I downsized to my present QTH.

I submit this appraisal to the Journal in the hope that those who have never used one, and in particular to those who still "roll their own" will give it a go. I would point out that it is NOT intended as a technical appraisal. Referring to the sketch below I have set out the normal requirements and measurements as a guide. For those who are interested I can assure you that for successful operation they are critical



There are certain requirements, which I have found important in order to get the best from this antenna:-

- (a) To obtain acceptable DX results.
- (b) To counteract various EMC problems.

These are basically as follows: —

- (a) A Low Pass Filter should be incorporated immediately after the TX, in the 50 Ohm line.
- (b) An efficient ATU is a MUST, as is a good earth system.
- (c) A suitable SWR Bridge with preferably a power meter Incorporated is VERY NECESSARY.

Note. The earth arrangement referred to earlier should be as short as possible and consist of heavy stranded copper wire or copper braid. When this has not been possible I have used an artificial earth to good effect.

Any interested party who contemplates giving the G5RV a trial run, will, I know, be wondering if their garden provides enough scope to erect such an antenna. It is possible to drop the ends of each leg by 1/16th (8.5ft) at right angles to the "Flat Top". This is permissible by the fact that the antenna is resonant at a distance of 2/3rds its length from the centre.

Generally speaking the Flat Top should run in a straight line, but if this is impossible, a variation can be made. (What happens to the lobe shapes, remains in doubt! but I have achieved good results doing this.) The optimum height for most people would be in the region of 30 to 35ft. Louis Varney suggests 34ft as being suitable. At my last QTH I used an inverted Vee configuration at 25 ft to the centre feed point and it worked very well, even on Top Band.

The height I used was low for bands below 30 metres but a compromise had to be reached to fit in with the space I had available.

When using the G5RV as an inverted Vee, the angle at the apex should not be less than 120 degrees. The Inverted Vee I used was 25 ft to the feed point and the lower ends were secured to the top of a six-foot fence at one end and to a short steel pole 10ft above the ground at the other, necessitated by the fact that this leg had to straddle the dwelling.

I did not use a unbalanced type of feeder (i.e. coax) because my Z Match did not accept this type of feeder and it was not until 1984 that G5RV concluded that coax could be satisfactorily used continuously into the ATU without causing any serious misgivings.

Should anyone wish to operate using a coaxial feeder, either 50 ohms or 75 ohms can be used, always providing it is of good quality and not exceeding 70ft in length.

Note:

Unbalanced feeder was first to require a Balun. It is now known that this is not required (G5RV issued an amendment in about 1984 to this effect) because, if a Balun is connected to a reactive load presenting an SWR of 2:1 or more, its internal losses increase resulting in the heating of the windings and saturation of its core; in adverse cases causing the Balun to burn out. THE WHOLE SECRET IS A GOOD ATU.

G5RV also issued a statement in 1984 to the effect that a coax feeder, be it 50 or 75 ohms, could be run direct from the Flat Top to the ATU, providing the ATU had "unbalanced input and unbalanced output".

Although the feeder will have a fairly high to high SWR, this will not result in significant losses, always providing the coax is of good quality and not in excess of 70ft(21.3Mtrs).

To return to the subject of feeders, and I have tried most configurations over the years, it is suggested that 3 variations can be operated: —

(a) Open wire feeder to the matching stub, plus 75 ohm twin lead—in.

(b) 300 ohm ribbon feeder to the matching stub, plus 75 ohm twin lead—in

(c) 300 ohm slotted ribbon feeder to the matching stub, plus 75 ohm twin lead-in.

The results have proved without doubt that the open wire feeder has the edge over the others on account of the following observations:

- 1) "Detuning" does not change with weather conditions.
- 2) Weather does not cause cracking with resulting infiltration of moisture affecting the wire.

A major point against however, is the fact that high winds cause the ribbon to flutter and try as one may to secure the junction with the Flat Top sooner or later a break occurs or water infiltrates at the central insulator.

The third and final ribbon is the most inferior. It normally consists of a clear plastic insulation which is affected both by weather conditions causing unacceptable "Detuning" and cracking allowing the ingress of moisture. It would appear that the wiring is steel and subject to rust when wetted which causes a complete break in continuity.

Additionally, the connection at the Flat Top insulator is most certainly problematical.

The matching stub, whether it be open wire or ribbon, should if possible be allowed to hang vertical for some 20 feet. This is not always possible but where it has to be in variance I have noticed that there is a variation of SWR. So if possible try to stick to the recommendations of G5RV. The junction at the lower end of the matching stub to the 75 ohm twin balanced section of the feeder does not normally present any problems.

The antenna loads quite well on the whole range of bands including the WARC bands and I have never had a greater SWR than 1:1.5. In my case the 14 MHz certainly gives an excellent match of 1:1 across most of the band.

Finally, I would stress that this is not a technical description of this antenna but just my experiences with it. I am sure there are better-qualified people amongst the readers than I and perhaps they might like to add their knowledge to those of us who only dabble. I have worked some 200 countries over the years with this set up, so, in my book, it is certainly an excellent and easily made antenna.

# Hampshire County Council - Emergency Planning

At the club meeting on March 17th, Ian Hault the HCC Emergency Planning Officer visited us to tell us about his role, and the work of his department. The full title of his department is Emergency Planning and Resilience Unit (EPU).

The unit draws up, maintains and reviews arrangements for dealing with major incidents. It co-ordinates responses across the council, and works closely with the county's emergency services and 11 district councils to ensure that the right people with the right skills are well-briefed and ready to react.

After World War 2, with the onset of the growing tensions between East and West, the Civil Defence Service was revived in 1949 as the Civil Defence Corps. As a civilian volunteer organisation, it was tasked to take control in the aftermath of a major national emergency, principally envisaged as being a Cold War nuclear attack. Although under the authority of the Home Office, with a centralised administrative establishment, the corps was administered locally by Corps Authorities. In general every county was a Corps Authority, as were most county boroughs in England and Wales and large burghs in Scotland. The Civil Defence Act of 1948 had been put in place to set all this up. It was repealed and replaced by the Civil Contingencies Act 2004 (CCA).



Before 2004, civil emergencies included Foot and Mouth outbreaks, floods, fuel shortages, the firemen's strike to name just a few that HCC County Emergency Planning had to deal with.

Ian then mentioned the Local Resilience Forum. The Hampshire Isle of Wight Local Resilience Forum (HIOW LRF) consists of representatives from emergency services, local authorities and any other organisations who potentially would be involved in an emergency. Through the Forum, these organisations work together to prepare for, respond to, and recover from emergencies. This is achieved through several LRF sub-groups dedicated to various emergency management actions from Risk Assessment of the HIOW area, to local community resilience practices.

The LRF is also responsible for the development, maintenance, and testing of emergency plans and procedures for major incidents, ensuring all organisations are prepared to respond to an emergency within HLOW, and that an effective multi-agency response is available. This joined up approach helps to ensure the best possible service for people living in Hampshire and the effective delivery of the duties under the Civil Contingencies Act.

At this point it is worth specifying what an 'Emergency' is, as defined in the CCA. "An event or situation which threatens serious damage to human welfare in a place in the UK, the environment of a place in the UK or war or terrorism which threatens serious damage to the security of the UK." Emergencies are happening somewhere in the country almost every minute of every day. The emergency services, (police, fire, ambulance and coastguard) deal with them quickly and efficiently. These incidents can include traffic accidents, fires, medical emergencies and other serious incidents at sea or in the waters of the Solent. The local authorities do not activate their emergency plans for these incidents. It is when a more disastrous event takes place that is beyond the capacity of the emergency services to deal with unaided that the county and district special plans are put into action. These plans are designed to support the emergency services in their difficult task. The HCC EPU assesses risks and hazards, prepares plans to deal with disasters and organises training exercises to ensure that Hampshire County Council Departments, the Districts and Borough Councils and other partner agencies are competent and confident to respond effectively and efficiently in a Major Emergency.

The EPU statement is 'Prepare, Respond, Protect'. The CCA divides local responders into 2 categories, imposing a different set of duties on each. Those in Category 1 are organisations at the core of the response to most emergencies (the emergency services, local authorities, NHS bodies and including 145 (South) Brigade, RAF and RN). Category 1 responders are subject to the full set of civil protection duties. Category 2 organisations (the Health and Safety Executive, transport and utility companies, and including airports, seaports and ferries) are 'co-operating bodies'. They are less likely to be involved in the heart of planning work, but will be heavily involved in incidents that affect their own sector. Cat 2 responders have a lesser set of duties - co-operating and sharing relevant information with other Cat 1 and 2 responders. Cat 1 and 2 organisations come together to form LRF's (based on police areas) which will help co-ordination and co-operation between responders at the local level. Other responders mentioned were the British Red Cross, and the Salvation Army. Cat 1 responders are required "to have regard" to the activities of voluntary organisations in the course of carrying out their emergency and business continuity planning duties. Voluntary sector organisations make their resources available to Cat 1 and 2 responders through their LRF/ Strategic Co-ordination Groups.

Photo by G3LIK, text by GØFYX

## CAArping about my ATU by Mike MØCAA

I have an admission to make - there's a 'black box' ATU lurking in my shack.

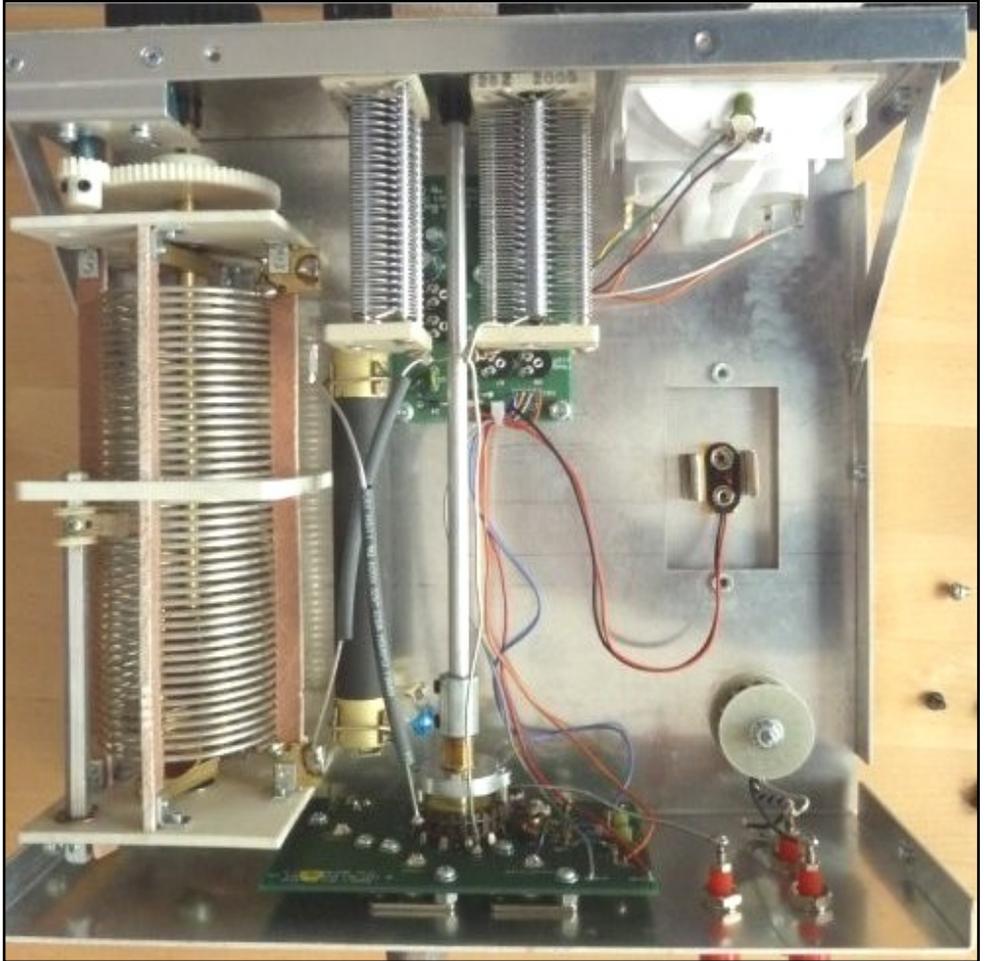


I used a homebrew aerial match box (HF 'T' match ATU) for many years and it was pretty good. Large and heavy and a bit crude and needed an external SWR meter but it worked, details are on the radio bit of my link from the HDARC website. Then I was offered an MFJ-969 at a price I couldn't refuse. It looked very professional with variable roller inductor and fancy looking SWR meter. I didn't use it much as most of my activity was using an inverted 'V' on 40m. However now we're back in blighty with a small garden, it was put into service - what a disappointment.

The metering has a button to turn it on, which you almost always forget to turn off. It uses a 9v battery fitted inside, above a panel under the unit with 2 screws, so replacement means disconnecting and inverting the entire unit - awful. Tuning was very difficult and tapping the unit would make the SWR go to infinity, not a good thing to do to your rig!

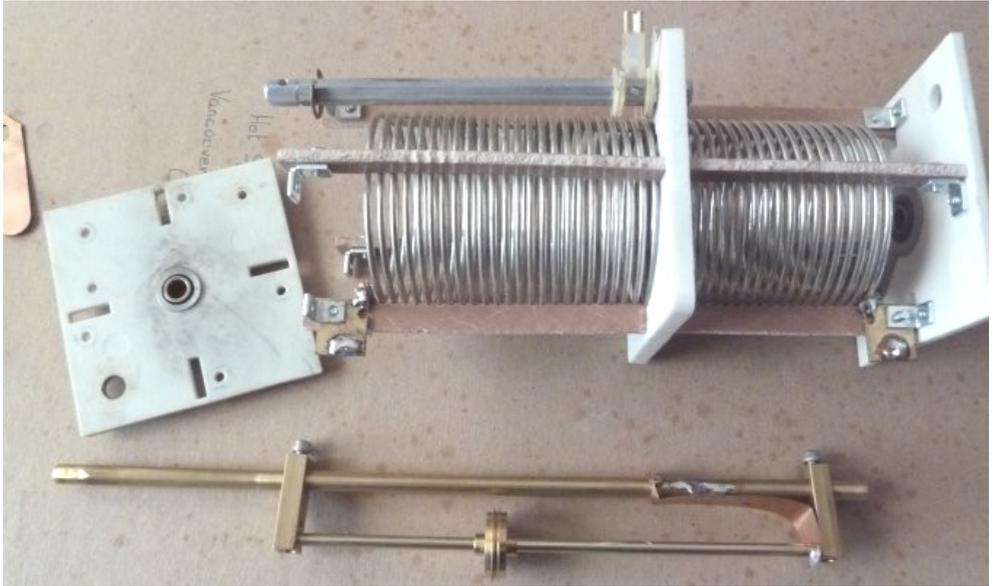
The battery problem was resolved by drilling a hole through the front and bringing out a second battery connector so the battery can be

easily changed. Oh and don't worry about RF leakage from the external battery, the 'wall-wart' input is far worse, which is why I use a battery. I modified the inductor knob to change the 'finger dimple' to



a 'cranker knob' (I kid you not, look it up on Google but be careful with the spelling!) using an M4 bolt as it was too stiff to turn with a finger. A look inside shows how cheap and nasty it is. The biggest problem is the roller inductor as it relies on a loose fitting brass roller which slides along a brass rod which is held against the coil by a spring at each end. Connection to the shaft is made by a nasty piece of phosphor bronze connected to the case by the inductor fixing

screws, there's no earth strap. I unsoldered the inductor, removed it (you need a powerful soldering iron) and took it all apart, requiring both metric and imperial allen keys - why? There were signs of arcing on both the rod and the roller, possibly due to the lubricating grease, that's why the SWR kept changing.



The anti-parasitic switch is horrible and very fragile, so be very careful when cleaning it. The brass rod was carefully removed from the shaft, keeping my finger over the spring and ball bearing to stop it flying past my ear and disappearing. I cleaned it all and used a pot scrubber on the rod. The inside of the coil was cleaned with a kitchen towel and methylated spirits. The springs were stretched out a bit to increase the pressure on the rolling connections and the whole thing reassembled. I have not lubricated any of it as that seemed to be what caused the problem.

It now 'tunes' (matches) much better and the matching remains completely stable when the unit is tapped, although it sounds awful when adjusting the inductor (like finger nails on a blackboard) without the lubrication.



I feel much better about connecting it to the rig now. It claims to be good for 300 watts, personally having seen how it's made, I wouldn't use it above 100 watts with a transistor rig or you might fry the output devices. The dummy load has no screening so if you use it you will be radiating some of the signal if the antenna is connected. Hope this helps anyone with one of these units, at least you have been warned!

All the best, 73 - Mike & Sue (M0CAA & M0BOZ)

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# THINGS YOU NEVER KNEW YOUR MOBILE PHONE COULD DO!!

*Here are a few things that can be done in times of grave emergencies.*

Your mobile phone can actually be a life saver or an emergency tool for survival. Check out the things that you can do with it:

1. The Emergency Number worldwide for Mobile is 112. If you find yourself out of coverage area of your mobile network and there is an emergency, dial 112 and the mobile will search any existing network to establish the emergency number for you, and interestingly this number 112 can be dialled even if the keypad is locked. Try it out.

2. Subject: Have you locked your keys in the car? Does your car have remote keys? This may come in handy someday. If you lock your keys in the car and the spare keys are at home, call someone at home on their mobile phone from your mobile phone. Hold your phone about a foot from your car door and have the person at your home press the unlock button, holding it near the mobile phone on their end. Your car will unlock. Saves someone from having to drive your keys to you. Distance is no object. You could be hundreds of miles away, and if you can reach someone who has the other "remote" for your car, you can unlock the doors.

3. Subject: Hidden Battery power

Imagine your cell battery is very low, you are expecting an important call and you don't have a charger. Nokia instruments comes with a reserve battery. To activate, press the keys \*3370# Your cell will restart with this reserve and the instrument will show a 50% increase in battery. This reserve will get charged when you charge your cell next time.

4. How to disable a STOLEN mobile phone?

To check your Mobile phone's serial number, key in the following digits on your phone: \* # 0 6 # . A 15 digit code will appear on the screen. This number is unique to your handset. Write it down and keep it somewhere safe. If your phone is stolen, you can phone your service provider and give them this code. They will then be able to block your handset so even if the thief changes the SIM card, your phone will be totally useless. You probably won't get your phone back, but at least you know that whoever stole it can't use/sell it either. If everybody does this, there would be no point in people stealing mobile phones.

# ALBINO SQUIRRELS

This is an article that I thought some of you nature lovers might enjoy reading.

Since 1953, white albino squirrels and grey squirrels have been regular visitors to this garden in Purbrook. Many generations of the albino have come and gone and are so pretty to look at with their pink eyes.

There is an Albino Preservation Society. This society was first founded in America in 2001, as an immediate reaction to the dwindling numbers of the Albino population. The white Albinos are vulnerable to other predators due to their colour and lack of camouflage and have a lower life expectancy compared to that of a grey squirrel. It is believed by many people all over the world that they bring good luck when taking exams, so are encouraged to be kept in the garden. The odds against a pure white squirrel being born in a drey are 1 in 100,000; this is due to albinism, a condition which also affects other wild life and even humans. It is caused by a deficiency of melanin, which causes them to look bleached and will definitely have pink eyes if a true Albino squirrel. This is a rare gene inherited from the parent but is not dominant, so that an albino mum can actually give birth to grey siblings.

All squirrels have to rely on foods rich in protein, carbohydrates and fat. The hardest time for them is in early spring because any nuts they have buried and stored over the winter have usually sprouted and are no longer a suitable food source. Squirrels are omnivores, they eat a variety of plant food like nuts, seeds, fruit, fungi and green vegetation. They will also eat insect eggs, small birds, mammals, frogs and carrion.

With the continued felling of trees and natural woodland environment, food is getting more difficult to source for the wildlife in general. The two different colours of the squirrel are very independent of each other so when they visit the garden for food, very often squabbles can occur between them while they are sorting out supremacy. There is never a direct winner or loser in these situations; one is chased away for a while then returns when the coast is clear. Very early in the morning is a good time to see everything, but in general we have them in our garden all day together with the wild birds. Since the wonderful bird table we had given to us for Christmas more and more wild life has returned. It is so important to feed them. particularly during winter, without proper food like all animals, they will eventually die out. Squirrels are very clever and persistent.

**Julia GOIUY**

## **News of club members**

Welcome to new member Milan Broum M6OKQ from Carshalton, Surrey. Milan took his Foundation course and exam with HDARC, and is now studying for his Intermediate licence with us.

Congratulations to club members who have new callsigns after passing their Intermediate licence exams. Bill 2EØWGK, was M6BBB, Rob 2EØOCS, was M6PIQ, Jean-Paul 2EØUKB, was M6UKG, Liam 2EØWYY, was M6WYY, and Brian 2EØ\*\*\*, was M6YBM. (awaiting callsign).

In the RSGB 2017 Commonwealth (BERU) contest, Mick G3LIK came 26th, and Stuart GØFYX came 41st out of 83, both in the Restricted Single-Operator unassisted category.

## **Diary**

Friday June 2nd                      Natter night/social evening. Also on this evening there will be a short talk about Smart Meters by Neil Richardson of SSE.

Friday June 16th                    'Amateur Astronomy' by Ken GØJWL

Sunday June 18th                HDARC will be selling at the Newbury Rally

Sat/Sun June 24th/25th          GB2FN from the Royal Armouries Museum, Fort Nelson for museums-on-the-air weekend. Setting up will be on the

Friday.

Details will be given in the weekly e-mails.

Friday July 7th                    Natter night/social evening

Friday July 21st                    Talk by Professor Mike Whittle, 'The History of Navigation'

## **This 'n' that**

The 2017 series of RSGB Club Championship monthly contests continues. There is a CW, SSB and Data (PSK/RTTY) contest each month. They are on 80m, from 2000-2130 clock time. June dates are Data on the 5th, CW on the 14th, and SSB on the 22nd. July dates are CW on the 3rd, SSB on the 12th, and Data on the 27th. This is a club event so please try to take part on behalf of HDARC. If in doubt, please contact me (Stuart). The full rules for these contests are at <http://www.rsgbcc.org/hf/rules/2017/r80mcc.shtml> .

If you have any equipment for sale, or any questions about any aspect of our hobby, let me know and I will put it out in the weekly e-mail for members. There is also a FOR SALE section on the club website now.

If you feel able to give a talk to the club (or perhaps take part in our 10-minute talk evening), please let me know.

## **Horndean & District A.R.C Information.**



**Club Call signs**    *G4FBS (Held by MØKTT); G6RST (Held by G4WQZ)*

**Club Website**    <http://www.hdarc.co.uk>  
*(Maintained by Neil M6LPI)*

**Club Yahoo Group**    *Administrator is Stuart GØFYX*

**Club Meetings**    *Held at Deverell Hall, 84 London Rd, Purbrook,  
Waterlooville, Hants. PO7 5JU, on the 1st and  
3rd Friday of each month. Commencing at 1930.*

**Club Nets**    *All times are local and frequencies plus/minus QRM.*

**Sunday**    *0900 CW until about 0930 then SSB on 1950 kHz.  
Net controller:- Stuart GØFYX*

*2000 FM 433.450 MHz  
Net controller:- John G4WQZ*

**Monday**    *1930 SSB 1950kHz  
Net controller:- Stuart GØFYX*

**Wednesday**    *1930 FM 145.375 MHz  
Net controller:- John G4WQZ*

### **Club Membership**

*Joining fee £2 . Annual fee £26. Those aged 10-18 pay half this rate, and under 10's have free junior membership. For Europe and rest of the World fees please contact the Membership Secretary. All annual fees payable on November 1st. If fees not paid by the following January 31st, membership is ended.*

### **Club Awards**

Full details from Stuart GØFYX (details on committee page).



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