



# DOVER RADIO CLUB

Affiliated to the Radio Society of Great Britain

**G3YMD**

**[www.darc.org.uk](http://www.darc.org.uk)**

# The Net

**July 2011**

**Copyright Dover Radio Club 2011**

## **Information**

**Information about club activities, meeting times, contacts, training, local nets and repeaters can be found on the club website [www.darc.org.uk](http://www.darc.org.uk)**

**Contribution and news items for inclusion in The Net should be sent to the  
NET Editor: Matt M1CMN – Email [thenet@darc.org.uk](mailto:thenet@darc.org.uk)**

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## **Club Meetings**

The Club meets at Old Park Community Centre, Whitfield from 6:45pm – 9pm every Wednesday during term time. (Please check Club Yahoo group / Website for regular updates)

A variety of Talks, demonstrations and special events are held at the club.

Morse practice takes place weekly from 7pm – 7:30pm.

## **Club Contacts**

**Chairman: Pete M0PKH [Chairman@darco.org.uk](mailto:Chairman@darco.org.uk)**

**Secretary: Catherine M1CVF [secretary@darco.org.uk](mailto:secretary@darco.org.uk)**

**Treasurer: Neil M6VDC [treasurer@darco.org.uk](mailto:treasurer@darco.org.uk)**

**Special Event Manager Peter G0KOK [events@darco.org.uk](mailto:events@darco.org.uk)**

**Net Editor Matt M1CMN [thenet@darco.org.uk](mailto:thenet@darco.org.uk)**

**Courses / Training Michael M0OZH – [courses@darco.org.uk](mailto:courses@darco.org.uk)**

The Dover Club is registered as an examination centre.

## **A few words from the Chairman**

When Matt asked me to put a few words together for the newsletter I welcomed the opportunity to update all our members on what has been happening.

The club has recently gained some new members; and I say to all members new and old if you are not sure about what is happening, then come and speak to me or anyone else on the committee.. We welcome your thoughts and ideas and like most things in life you will get out of the club what you put in. There is plenty on offer, whether you want the opportunity to operate in our well equipped shack, listen or contribute to talks or just have a cup of tea and a chat with like minded people.

This year we have been more public facing with events in Pencester gardens and Dover museum and I am sure that Peter (KOK) will have at least one more event lined up for us. I have started to notice the same faces supporting the events and I would like to take this opportunity to urge all members to participate and give a little back to your club.

We have just taken delivery of our own projector; this was funded by striking up a deal with Manston who now pay us to train their staff as and when we hold a course. Talking of courses we have our next foundation course in September and places are going fast, so if you know of anyone that wants to join us now is the time to get them enrolled. We are also planning an intermediate course in spring 2012.

We have an open day coming up on July 16<sup>th</sup> (1.30 to 4pm) which is another opportunity to get new members up to the club. The open day will be followed by a bar-b-q for members. Then the following Wednesday we have our junk sale at the club, there is no charge for this just bring up your gear that has been gathering dust and turn it into cash; don't forget to mention this to as many amateurs as you know. If you want to donate any gear to raise money for the club we will welcome it for the auction at the end of the evening. However, be careful as ROO will palm you off with box loads to take home!

I will just close by thanking all members for keeping our hobby alive in the area

73's

Pete  
MOPKH

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## **Local White Cliffs Net on Top Band**

The Dover Radio Club "White Cliffs Net" is on air daily at 10:10 Hrs local time on 1. 845.00 (+/-) Please feel free to join in. Net Controller is Tony M0VYW.

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## Local Repeaters

VHF voice repeaters covering the catchment area of the Dover club are GB3KS at Dover (145.625MHz) and GB3FK at Folkestone (145.750MHz).

There is no UHF repeater in the immediate locality but GB3EK at Cliftonville Tx (Output) 430.8875 MHz, RX (Input) 438.4875 MHz [Offset 7.6 MHz] CTCSS 103.5 Hz (look at [www.gb3ek.co.uk](http://www.gb3ek.co.uk) for more information)

GB3SK at Canterbury (433.150MHz) provide good coverage with the exception of the low lying areas of Shepway.

GB3FK is operated by the Folkestone Repeater Group.

Further information can be obtained by logging onto [www.gb3fk.com](http://www.gb3fk.com).

The other repeaters mentioned above are run by the Kent Repeater Group and full details of all their repeaters can be found on their web site at [www.krg.org.uk](http://www.krg.org.uk)

### Voice Repeater Access and Usage

All the voice repeaters in Kent can be accessed by a 1750 Hz tone of between 200 m/seconds and 1 second OR by CTCSS tones of 103.5 Hz (except GB3SK) followed by at least 3 seconds of audio this can be achieved by giving your own call sign twice to ensure the repeater is opened properly.

ALWAYS wait for the over signal, usually a 'K' or a 'G' between over's before transmitting. The 'G' indicates access by CTCSS.

### DSTAR Digital Repeater

GB7FK - This digital repeater is located in Capel le Ferne. Port B 439.7375 MHz Port C 145.7875 MHz for more information visit [www.gb3fk.com](http://www.gb3fk.com)

Please send your reports to: Matt M1CMN.

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Junk Sale 20<sup>th</sup> July 2011

Be sure to bring along any Items you would like to include in the sale. Ian G3ROO will be starting the auction at 7:30pm.

## Thoughts on Aerials Part 1 - Ian, G3ROO

According to the Oxford dictionary antennas are 'sensory organs on the heads of insect', aerials are 'elevated structures' so the big question is..... What more accurately describes the things we put up?!

There is no difference in the theory between HF and VHF but it is easier and cheaper to build HF aerials whereas the opposite is true for VHF aerials, cheaper to buy than to make!. They require much greater measurement accuracy due to their small size.

There are a few points that have to be understood and remembered before we start playing with aerials.

In a proper system

1. The aerial radiates the signal and the feeder feeds the aerial and should, no must, not radiate if the aerial is to do it's job properly.
2. The end of the aerial can only be a point of maximum voltage. You just need to realise that power is volts times amps. At the end of the aerial there is nowhere for current to flow, so there must be volts there to satisfy the basic equation.
3. Once the aerial is in position nothing can materially alter the aerials resonant frequency unless there is a remotely variable reactive assembly place within the system, but not at the bottom. The radiation may be modified below the reactive element but the section above it will remain unchanged.
4. There is no such thing as an 'Aerial Tuning Unit', it is a misnomer and should be 'Aerial Matching Unit' or 'Aerial System Matching Unit'. It is worth while trying to thinking and referring to it as such as it will remove confusion when talking to novices.
5. A Balun is a balanced to unbalanced transformer and an Unun is an unbalanced to unbalanced transformer. It is important to use the right one as using a balun where an unun should be used could have shorted turns. This can have very undesirable effects!
6. There are two basic types of aerials Dipoles and Monopoles, anything else is a derivation of these. An example is the loop.... to work properly this is two dipoles with their ends joined and only works properly when the overall length is a multiple of full wavelengths.
7. A loop only works on a frequency that is equivalent to one wavelength or a multiple, on any other frequency it is a mess!

8. The earthing of the system is especially important as the aerial current has to return to the transmitter body. If this is via a high resistance earth a lot, perhaps even most, of your transmitter power will be absorbed by the soil and converted into heat and not into a QSO! Elevated radials, often called counterpoises, can make a big difference to the efficiency of a system.... the more the merrier.
9. Power is not important! 10 watts into a good aerial system will be better, much better, than 100 watts into a poor system. Remove losses wherever possible and QSO's will result.
10. Most important of all is to realise that an ASMU at the set end of the feeder is doing nothing to help the signal at all. The only thing it does is to make the transmitter happy!

Happy operating

Ian

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### **Maidstone YMCA ARS VHF Field Day 2011 2<sup>nd</sup> / 3<sup>rd</sup> July**

Hi All this is a Formal Invitation for Members of Dover Radio club to join us for Vhf field day 2011 at Capel Battery,

We aim to enter all bands at Full power in Open section.

Looking for operators for various times over the 24hr contest and help erecting/dismantling stations

There is no need for operators to members of the RSGB if the entry is on behalf of a Club and we would be quite happy for this to be joint entry if so required.

We have the equipment, amps, towers and generators, but are short of enough Operators to man the stations the full 24hrs.

We would propose to run some training before field day, ie logging, power amps etc.

Yours

Ian Hope  
2E0IJH

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## The Club Fox Hunt June 2011



Great to see members join in with the 2m Fox hunt just a few weeks ago. Matt M1CMN and Catherine M1CVF were the foxes; they were hidden down in a car park Near to Kearsney Abbey. Well done to Pats Team for winning. John G0ICT, Pat M0EEH and Mick M0FZZ. A great fun evening had by all

## Museums on the Air Weekend



Another successful event was held during June, at the Dover Museum. The 2 day special event saw many contacts on HF and DSTAR. It was great to see some of the new licensees get on the air and have a go

### **Pencester gardens Special Event**



Another successful club event at Pencester Gardens in Dover. The event was held to show the people of Dover what the radio club get up to.





Neil M6VDC operated on the air on DSTAR



Mick M0FZZ at the Morse Table! - Pat is nowhere to be seen, we presume he was chatting up a young lady somewhere!!



It was all a bit much thou for Ian G3ROO!! – After a couple of contacts on CW he needed to get his head down. It was lucky the DSTAR team carried on ☺

Thanks to Special Event Manager Peter G0KOK for all of his hard work with this event, as well as Ian G3ROO, Pete M0PKH, and Nigel M0NDE, and to all the club members that came along to support the event.

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## Pictures from the Past



Those interested in collecting WAB squares encouraged us to be here on Shakespeare Cliff as most of that square is in the sea....Estimate for the picture early 80s or late 70s

**Left to Right**

David G3YXX (white stick) second person unknown, John G4EQJ, Tony G4IMP, Fred G4GAN SK, John G3OWQ, Dave G4HRE

**Picture from Pete G4EGQ**

## A Vintage Slide Show at the Dover Radio Club YMCA



**I am Happy to say that DARC now has its own LCD Projector!**

Left to Right

Half Alan G8KSD, Mike G4FJF. Dave G4HRE, Peter G8EGT, John G4JOV, Paul G3VJF, Dave G4ELP  
Tony G4IOT SK

**Thanks to Pete G4EGQ for these photos. More photos and memory's in the next edition.**

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## The next Foundation Course

The next Foundation course will commence on Wednesday September 7th from 7-9pm. The exam will be on Wednesday 19th October. We will cover the full syllabus including the practical elements. The course and exam will be held at our club house in Whitfield. The course will include a mock exam and revision session.

The cost will be £50. This will include the exam fee, a copy of Foundation Now Book and all other costs including refreshments. There will be no additional club fees or charges. For more information on this course or to apply, please contact the club training manager by emailing [courses@darc.org.uk](mailto:courses@darc.org.uk) - More information is available on the Foundation Course page.

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## Thoughts on HF commercial vertical aerials

Ian, G3ROO

I do have to admit that I have used, and still do use, a commercial multiband aerial., BUT I do not expect to work much on it and pretty generally it is used on receive when testing radio's in the Dover Construction Clubhouse.

So, have you asked the question WHY?

Well, if you have not I will answer it anyway! The principle reason is it very low efficiency the lower you come in frequency. On 10m it will be not bad, but 9ft of copper pipe insulated and fed with coax against ground will still be better and a very small fraction of the price. By the time we have got to 15m we can expect gain against a matched pole of the same height as the the multiband vertical to be about -10db, that's 2 S points!

By the time we have got down to 20m you can add another S point, so now we are down 3 S points.

Funny enough from here on down to 80m things actually do not get much worse.... the reason for this is that due to the construction of the aerial the effect of the traps is to make the 20m element about one third of its correct mechanical length. From this point down in frequency a different method is used, that of 'loading'

Whereas the traps turn off the unwanted chunks of aerial that is not wanted 'loading' makes it look longer. Both methods have the unfortunate effect of making the aerial very narrow band' A 16ft pole on 20m will cover the whole of the band, the trapped aerial will be lucky to cover the sideband section!

By the time we have got down to 80m this effect is chronic. Most multiband aerials will be lucky to be usable over more than 20KHz of 80m. Using a matching circuit AT THE BASE OF THE AERIAL would help this situation, but use at the radio end of the coax is a disaster.

Two things happen.... firstly the VSWR rises very rapidly away from the optimum frequency... the effect of this is losses ride dramatically. The second thing is that the voltage on the coax at this high VSWR is very high and there is a very real chance to the insulation between inner and outer being pierced, ruining the coax.

The other problem is setting them up! You have to follow the instructions to the letter. For the vast majority of amateurs it is a matter of no instructions, don't attempt it!

So, what do we do? Well, that's another story!

73

Ian

**Do you have an interesting article to add to "The Net" if so email Matt [thenet@darcs.org.uk](mailto:thenet@darcs.org.uk)**

## Temporary Radio Station on the Air

This is well worth a listen if you are in the area from the 2<sup>nd</sup> July (28 day broadcast) they will also stream online.

Red Sands Radio returns to serve the Thames Estuary Basin & North Kent Coastal Towns from the 2nd of July.

Operating from the heart of the community at Whitstable Harbour the station in its 5th year once again brings a taste of how proper Community Radio should sound.

Playing a wide rotation of 'Feel good music' you'll hear your favourite songs and some you'll have forgotten, played by people who are not only passionate about music, but radio!

We'll bring you the latest in local travel & traffic, what's on, weather & local news, guests interviews with local celebrities, local businesses, musicians & local characters.

Red Sands Radio tune in from 2nd July.  
Red Sands Radio, Whitstable, Kent, CT5 2PF  
Telephone: 07711 512 991  
Email: [studio@redsandsradio.co.uk](mailto:studio@redsandsradio.co.uk)  
<http://www.redsandsradio.co.uk/>

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### The Brand New ICOM IC-9100 Personal Review from Brian G3OJZ

Matt asked me to do a few comments on the Icom IC-9100 rig for the mag. Well I bought mine in March when they first became available and have been using it nearly every day on the top band net etc. and on D-Star. I won't bore anyone with the specs. As you can find a full review in the April Radcom.

I like to do my operating in my lounge so it's really beneficial to have one radio that covers VHF,UHF D-Star,HF and 1296 bands all modes in one box (unfortunately no 4 mts) the alternative would mean a number of different radios and my lounge looking more like a radio shack.

The reports I've had are as you would expect excellent quality on TX and RX and you can alter the tones for both in the menus to suit your preference.

I'm not a CW man but Ian G3ROO popped in and gave it a quick burst on the key and was impressed with all the features I think.

D-Star is a dream and the large scrolling text (station details etc.) along the bottom of the screen can be read from across the room. Audio quality on this mode was reported as better than my Icom IC-92 handset which was already reported as very good!

On the downside no colour display like some other HF rigs, what a pity, and you have to change the power level with a little pot when changing from HF bands to FM repeaters etc. which is easy to forget.

However these are very small niggles and there are masses of good features which would take all day for me to go into.

Would I change it for any other top end radio, very unlikely for the foreseeable future.

**BRIAN/G3OJZ**

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## British DX Club

For those that are interested in SW Broadcast DX, then it's well worth joining the British DX Club.

The club is very cheap to join, and includes a monthly newsletter / booklet which is excellent. They also do a monthly "Audio Circle" which includes broadcast radio clips recorded by enthusiasts over the UK.

For more information visit their website [www.bdx.org.uk](http://www.bdx.org.uk)

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## The Club Diary over the next few months

### PLEASE NOTE

**On the odd occasion the committee may be forced to change the programme at short notice due to circumstances beyond their control. Please ensure you check the club website for the very latest diary**

July 6th Operating Night

July 13th Event Night

July 16th - DARC Open Day and Members BBQ

July 20th Junk Sale

July 27th Natter Night

Aug 3rd Summer Break

Aug 10th Summer Break

Aug 17th Summer Break

Aug 24th History of CB Radio and a look at some of the new radios on the market - Talk by Matt M1CMN

Aug 31st Operating Night

Sept 7th Circuit Simulation talk - Pete MOPKH

Sept 14th Event Night

Sept 21st Natter Night

Sept 28th Scout Night