



# Radio Society of Great Britain



## City of Bristol RSGB Group - G6YB

At the Bristol Lawn Tennis & Squash Club, Redland Green, Redland, Bristol BS6 7HF

Monday April 25th at 1930hrs

Roger Dixon G4BVY

### Matching - Radio Amateurs do it with real AND imaginary parts

**Roger G4BVY** is an active HF/VHF Dxer /Contester. He has retired from the MoD as an “electronics bod” and is a very active member of the RSGB Contest Committee.

Roger’s talk will consist of a bit of theory and lots of practical demonstrations.

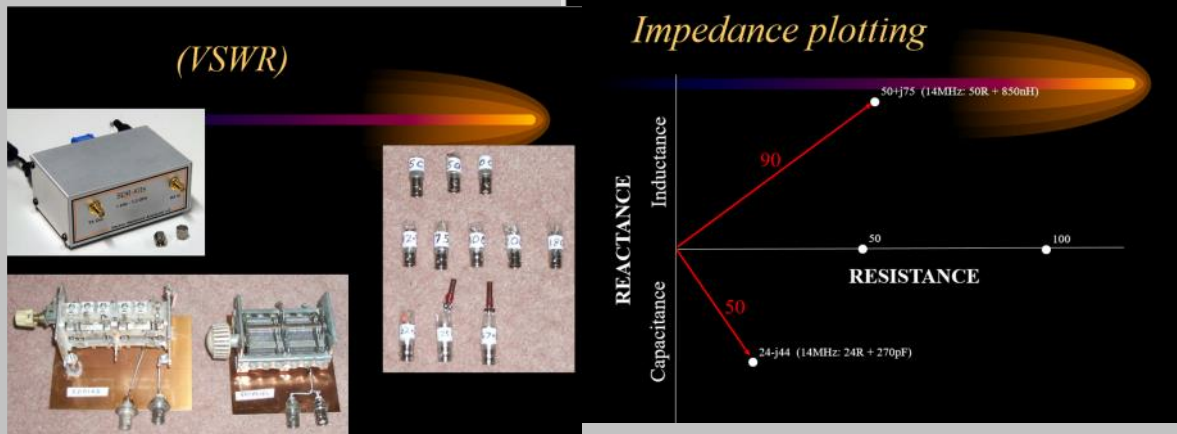
He will consider the characteristics of resistors, inductors and capacitors.

SWR and why (or if) we need to match antennas will be examined.

He will describe how to match an antenna to your transceiver.

All of this will be supported by live measurements on a network analyser.

**Are you having problems with matching an aerial ? This is for YOU!**



## RCF ARKWRIGHT TRUST EVENT AT BLETCHLEY PARK

by Steve Hartley G0FUW

One of my many hats is that of a Trustee of the Radio Communications Foundation (RCF). The RCF is a small charity that was set up by the RSGB to make the best use of donations from members, and others. One of the aims of the RCF is to promote radio communications in the UK.

One of the things the RCF does each year is to sponsor two Arkwright scholars who have, or might have, a leaning toward radio/wireless. The Arkwright Trust has a wide range of sponsors from academia, engineering industry and a proven selection process to ensure that the brightest young engineers are supported and encouraged to study and work in UK plc. There are around 400 scholars selected each year.

I have attended two presentation ceremonies in London and have been blown away by the achievements of these young people, not just in academic qualifications but in their hobbies and other interests. Many mention electronics, wireless, astronomy and the like in their CVs and it occurred to me that there were many potential radio amateurs amongst them.

I thought about how the RCF and the RSGB might tap into this rich pool of resources and eventually came up with the idea of a radio day at Bletchley Park. That morphed into providing Foundation textbooks and running the Foundation assessments and exam on the event day. The Arkwright Trust advertised it and we waited to see if any would want to do it. We had 16 places available and over 60 scholars applied; it seems they really were interested in radio!



The big day (April 29th) saw a team of helpers drawn from the RCF, the RSGB, the National Radio Centre at Bletchley and one G3TKF, who agreed to accompany me for the

G3TKF extolling the virtues of CW



day. It was a little manic at first but the teams set about their tasks and by the time of the exam all had done Morse, aerial tuning, VHF and HF QSOs. Fifteen sat the exam and fourteen passed. All went away with goody bags and further info was sent about their local radio Clubs and how to get started on the air. One e-mailed two days later to say he had joined the RSGB and ordered the Intermediate textbook!

Was it worth it? The feedback from the scholars was very positive and considering some came from far flung corners of the UK to attend, they could have been very

disappointed! We will only know in a few years if the exercise did generate more young amateurs but the Arkwright Trust have asked us to do it all again and the RCF have agreed to sponsor the textbooks and exams again, so they feel it was worthwhile.

Martin G3ZAY describing the NRC shack



Arkwright Trust: <http://www.arkwright.org.uk/>

RCF: <http://commsfoundation.org/how-to-donate/>



**You may have seen** that this amazing Russian radio vehicle was on display in locations in our area. I spotted it on the Downs in Bristol last Friday evening . Originally owned by G4PMY it was brought down from Derby by the new owner Chris Clemson (*a friend of a local amateur Calum G7VRD*) who recently purchased it. The documentation of its history and some of its equipment are apparently still classified by the MoD.

The truck is the Zil 131H, built in 1989. It has been converted to diesel by installing a Cummins B engine with inter-cooler and an Eaton six speed box.

The vehicle weighs 9.75 tones and can be driven on a car licence under exemption for show vehicles.

The R161 radio station covers 1.2Mhz to 60Mhz with a 1Kw output - but when linked to other units can produce up to 15Kw! (*Details on the link below*) Without doubt the most solid radio I have ever handled - all the controls are labelled in Russian which does make a quick tune over the bands rather difficult! Transmit and receive modes are AM, USB, LSB, ISB, FM, CW. On board power is generated by a petrol 4Kw 3 phase generator. Which I can confirm is VERY noisy!



I was told this is the only operational R161 radio system that is working AND in Western hands .....



It had been suggested the **Bristol Group** might want to use it for RSGB National Field day - but I thought it might be rather difficult persuading any “inspectors” that we were fully complying with the rules of 100watts maximum power output!

More details here [http://www.nd2x.net/Zil\\_Radio\\_Truck.htm](http://www.nd2x.net/Zil_Radio_Truck.htm)



**The funeral of John F.R. Weston G3LYW** took place on Tuesday 5th April in Bath at Haycombe Cemetary - around 40 people attended with a high proportion of radio amateurs.

## Ofcom revises licence guidance



Ofcom has revised its guidance notes relating to the UK Amateur Radio Licence.

The document should be read in conjunction with the licence, and is intended to help licensees understand and comply with the licence terms and conditions.

It can be [downloaded from the Ofcom website](#)

*I hadn't read the document recently; several points have now been clarified ...*

**A really excellent RSGB video** has recently been produced.

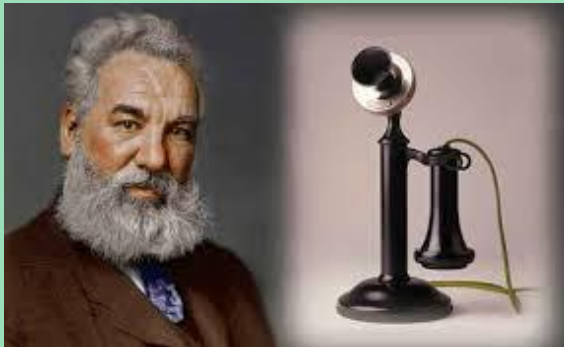
Do take a look at it and show it to anyone that asks what as Radio Amateurs we actually do ! It does show quite a lot of our diverse activities .

<https://youtu.be/SH9OtgAcV6g>



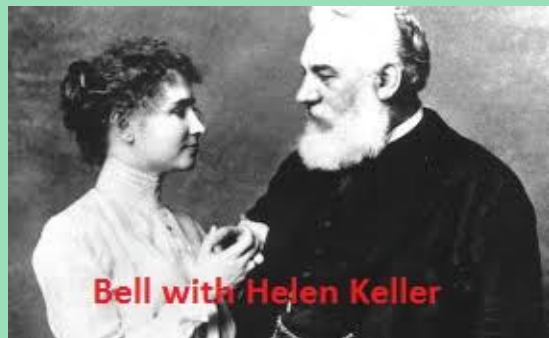
## “IF IT RINGS... DON’T ANSWER IT”.

**Alexander Graham Bell (1847 – 1922)** is famous for his invention of the



telephone, yet the enormity of such an invention makes it easy to overlook Bell’s other work, which is a great shame. Born in Edinburgh in March 1847, Bell became interested in speech and work with deaf people. His father and grandfather had also been experts in this field. Bell’s mother was profoundly deaf. The

invention of the telephone was almost a by-product of his work with the mechanics and elocution of speech. Bell moved to Canada in 1870 and then to the USA the following year. It was on that side of the Atlantic that most of his major work was undertaken. In 1883, Bell founded a school in Boston (later part of Boston University) to train teachers for the deaf and where he became a Professor of Vocal Psychology. Bell also worked with the famous deaf and blind Hellen Keller (who because of these disabilities was also linguistically mute) but who later became internationally famous for her astonishing achievements, in not only being able to speak but also as a political activist, author and lecturer. It was Bell who introduced Keller to Annie Sullivan who was also blind but became the lifelong companion of Keller; over many years she taught Keller to speak and understand language by spelling out words on Keller’s hand.



Bell became fascinated with the transmission of speech and is credited with the invention of the telephone. However, his invention became subject to over six hundred challenges and lawsuits all of which he won. Elisha Gray (1835-1901) ferociously accused Bell of stealing key elements of his invention (in particular a liquid transmitter). However, it appears that Bell managed to file this part of the patent just hours before Gray. There followed a period of intense legal challenges. Bell’s claim was upheld because it contained certain design features which were not in Gray’s design submission. However, there are still people today who would support Gray’s claim to the invention.

cont'd ... Bell was not a great businessman but his invention did make him wealthy and allow him to divert his interests into other fields. Much of this work we would not associate with Bell. Yet, it represents an astonishing corpus of work. He devised the first practical working phonograph, the metal detector, the hydrofoil and the respirator. Bell also introduced the Montessori method of education to the United States. But perhaps his other greatest but little known work, was in the field of aviation and in this field, he undertook over 1200 pioneering experiments. Bell also became one of the founding members of the National Geographic, serving as the Society's second president.



Like many inventors, Bell carried his fair share of eccentricity. In planning his death, Bell spent time roaming around the mountains near his home and lying down to check the view in several places in order to choose the position of his grave.

Alexander Graham Bell died on August 2<sup>nd</sup> 1922 from complications from diabetes. Following his funeral, every phone in North America fell silent, in his honour.

*With many thanks to **Bob G4BWB** for this*

## **Coming soon to the Bristol Group**

May: John Thomas G4DVV “Rockets and X rays”

June : Chris Rennie MØOLO “Optical Communications”

July : “Christmas” Party

August : Mark Stuart “What is going on with the weather in Bristol? ”

**Any more ideas for speakers later this year please ?**

## **At the local clubs :**

Bath and District ARC <http://badarc.webs.com/>

Chepstow and District ARC <http://www.gw4lwz.org.uk/>

Chippenham & DARC <http://www.g3vre.org.uk/archive.asp>

MidSARC [www.midsarc.org.uk/](http://www.midsarc.org.uk/)

North Bristol ARC <http://www.nbarc.org.uk/>

Shirehampton <http://www.shirehampton-arc.org.uk>

South Bristol ARC <http://www.sbarc.co.uk/calendar/>

Thornbury and South Gloucs ARC <http://tsgarc.uk/>

Trowbridge and District ARC <http://www.radioclubs.net/trowbridgedarc/events.php>

Weston Super Mare RS [www.radioclubs.net/wsmrs/](http://www.radioclubs.net/wsmrs/)

If you want to buy or sell something, let me know - Or tell us on the [Bristol RSGB Yahoo Group](#) !

I need articles for “How I started in radio” or “Things you may not know about members of the group” - If it’s publishable it can appear here!

[Robin G3TKF](#)

RSGB Bristol Group Sec.

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<http://www.g6yb.org> Don’t forget the history of the group here: [History](#)