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 27th 1930hrs

Dave Boniface G3ZXX

DMR : what it is and how it works

DMR is the latest and most exciting "Emerging Technology" already taking the amateur repeater scene by storm.
DMR-MARC - is a worldwide network of dedicated digital amateur radio repeaters located in over 18 countries.
Originally it was set up by a group of Motorola engineers who also happened to be active radio amateurs.
With well over 300 repeaters worldwide, each is able to provide local, regional and worldwide repeater coverage.
A DMR repeater allows two completely separate QSOs to take place at the same time - a unique feature . TWO repeaters in one!

Groups all over the country are now going down the DMR line, some even replacing "D Star. In our area there is a new network of 5 inter-linked repeaters **GB7AA, GB7BS, GB7DR, GB7JB** and **GB7SD .**

Second hand units at £80 or so will get you on the system .

Before you say " do we NEED yet another system? "….**Come along and find out more!**

http://www.dmruk.net/dmr_in_the_uk.htm

New type of coax

Two radio researchers have recently developed a new type of coaxial cable that promises to be a breakthrough in RF communications. This new coax eliminates SWR which gives many radio amateurs sleepless nights.

Termed ‘monodirectional’ coax or Monax, this new line was discovered as a by-product of their research. During an experiment as a temporary substitute for a normal coax jumper, they substituted ferrite beads for the dielectric. The result was totally unexpected. The ferrite in the coax, as it does in a microwave circulator, blocked all the reflected power on the line. Radio energy could now flow in one direction and the SWR instantly became a perfect 1:1. There was a problem though - Monax was only good for transmitting; received signals were also blocked. The solution, explained one of the researchers, was to parallel two cables directionally reversed. The pair then performed just like normal coax except with perfect SWR.

“MONAX” or Monodirectional Coax - (SWR 1:1)

An additional benefit is that while ordinary coax exhibits loss, Monax shows gain. This is attributed to power not reflecting back down the coax and building up in the antenna. The researcher says he believes the ferrite dielectric causes the RF to behave like the “j” operator of capacitive or inductive, that is, as the square root of minus one. Reflected power is technically still present but is now imaginary and no longer detected.

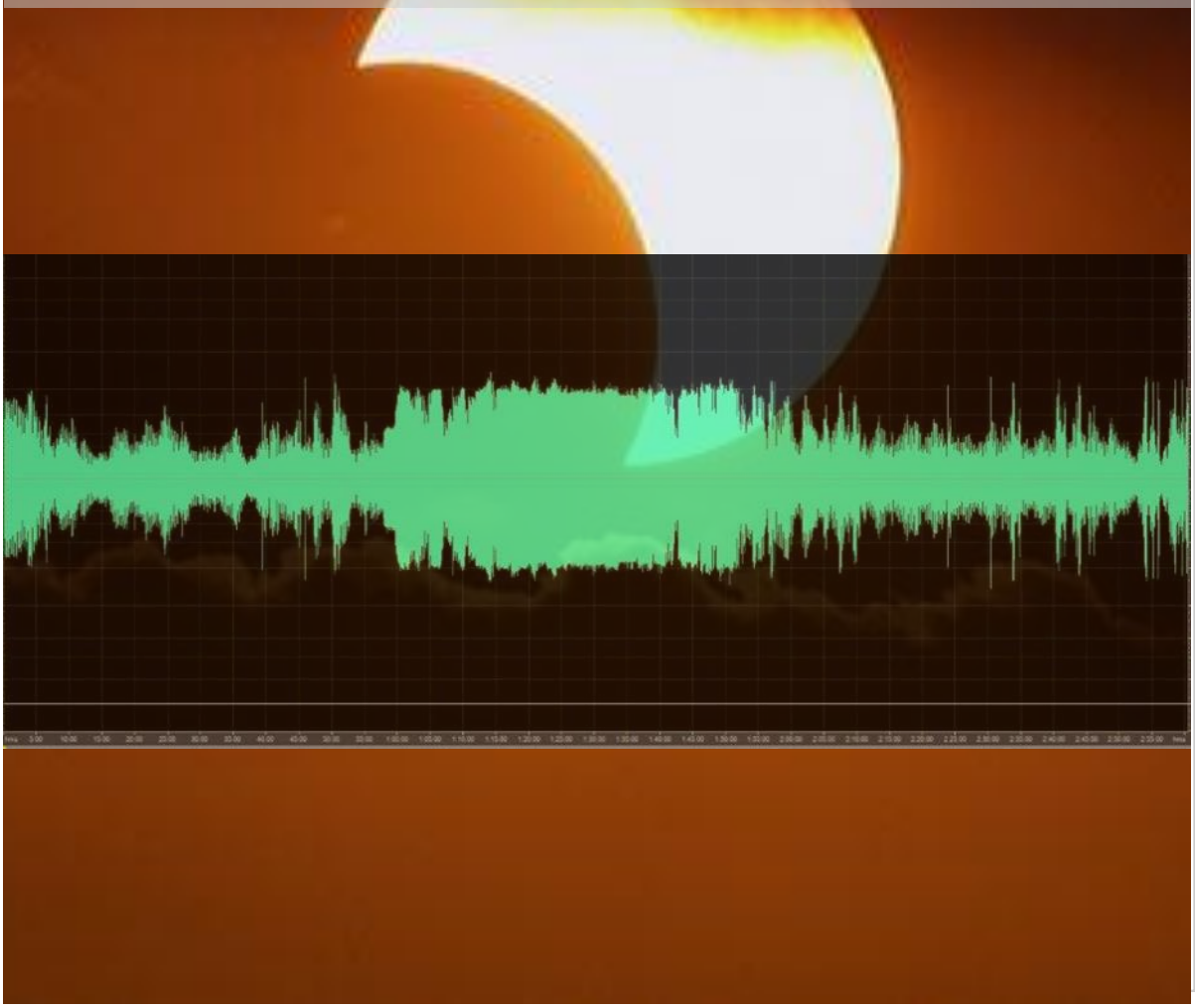
You can already purchase Monax at some radio stores. Ask for RG-58M or RG-8M, new dual monodirectional PL259 connectors are also available. Dual BNC & N connectors for Monax are coming soon.

For more information please contact the Secretary who will point you in the right direction - but please do so before the end of the month.

Results of a test during the Eclipse last month

Colin G3YHV monitored Radio Scotland on 810Khz during the eclipse. He used his TS 950 and an 80m doublet . Using USB and setting the heterodyne to 500Hz the receive bandwidth was about 250Hz to help filter out some of the sidebands. He recorded the resulting tone in Adobe Audition in timer mode and then went off to work. The vertical divisions on the display are every 5minutes with Colin starting the recording around 0800 and finishing at 1100.You can see the obvious strengthening of the signal during the partial eclipse period. This was one of the more positive results that I have seen.

Watch next month's Rad Com for details of other people's results.



An interesting idea from QST of 1927 vintage, when calling CQ indicates the type of QSO you would like:

CQC: looking for a chat/ ragchew, discuss weather, women , politics or whatever.

CQR: just looking for a report, you know the sort of thing 59(9) 73 and away

CQT: station wishing to pass a message to a particular part of the country.

As we all know it didn`t catch on but an interesting idea; maybe those good old boys of yesteryear could see into the future and see what amateur radio would become in certain areas in the 21st century.

Dave G4NKT

Coming soon to the Bristol Group

May: Prof Cathryn Mitchell "HF propagation project"

June: Jeff GW3UZS Developments in SDR and what exactly IS a SDR ?

July : Chat night

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/

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

I need articles for "How I started in Radio" - even if nobody else does, **I** will find it interesting!

Robin G3TKF

RSGB Bristol Group Sec.

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http://www.g6yb.org