THE SARC MAGAZINE

Issue 2

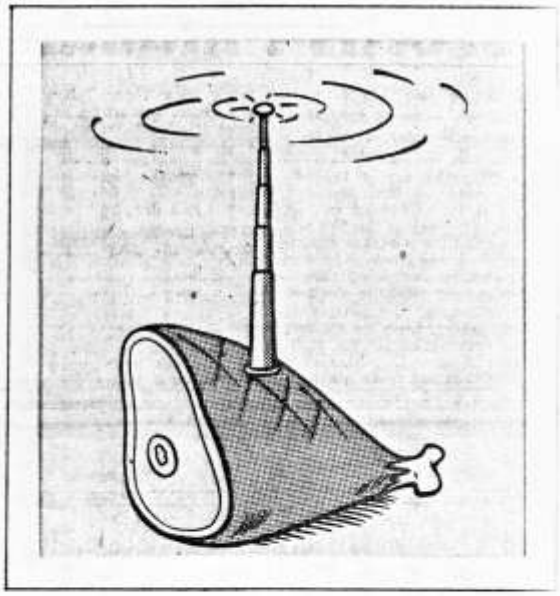
From your Chairman

May I first wish, albeit rather late, all members and their families, a Happy New Year.

The club's activities during the Autumn period proved highly successful and no doubt the same will be said of the Spring activities. As evenings become lighter our thoughts turn toward summer activities, such as Longleat Rally and various Field Days and DF events. Help will be required from everyone for these.

With more clubs forming in the Bristol area, it is important that we all work together to promote and enjoy Amateur Radio, not as rivals.

Bob, G4BWB



FOR SALE Icom IC720a hf general coverage transceiver, ssb, am, fm, fsk and cw with narrow cw filter. 100 watt transistorised PA. 1 year old. **BARGAIN** at only £675. See G4EQP for more details.

More **Club Classified** inside.

SHIREHAMPTON AMATEUR RADIO CLUB
Twyford House, Lower High Street, Bristol.

Computers and Radio

UOSAT is the University of Surrey satellite which transmits data concerning its own systems and sometimes pictures of earth, in suitably encoded form. These transmissions are on various amateur bands, including 2 metres using various modes, including 1200 bps ASCII. Some of you may not have been aware that SARC is the owner of a UOSAT decoder built by G4BWE from January 1983 RadComm. This decoder plus suitable software can display the data to be read from a vdu. I have written the first part of a suitable program, so that all that is required now is a DECENT tape of a UOSAT pass.

So, when you are a bit bored with the usual 2 metre rubbish, how about making a cassette tape of UOSAT for the club for testing the decoder and program. It would be much appreciated.

The mighty Nascom has not only been used to produce this Magazine but has also been used in conjunction with an ST5 terminal unit to listen (watch?) to Radio TeleTYpe signals. Yes those funny warblings on 144.600 MHz, 145.300 MHz and elsewhere do have a meaning. For amusement one cold evening, I wrote an RTTY program for the basic Nascom, not requiring any modifications, external timers, UARTs etc. and can deal with 45 and 50 bauds automatically. This program occupies a mere 80 bytes. Not bad for a machine originally designed around 1978 - no Sinclair or BBC could beat this...

Garry, G4FRO

Special offer

This is your last chance to take up the latest sweatshirt offer. For a mere £6.50, SARC members and friends may obtain a high quality sweatshirt of specified size and colour, featuring the now legendary club logo.

Hurry to see G4BWE to place your order.

Offer closes soon!

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Events

15 February 1984 (Wed)
Visit New Brideswell Police Station
Meet at above for 7.30p.m.
Bring an alibi

For further details contact G8ZOE

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Club CLASSIFIED

SALE

VHF/UHF scanning receiver
66-88, 144-174, 430-512 MHz
Only £125

Multi U11-70 cm mobile transceiver
10 crystalled channels
Only £80

See G8ZOE for more details.

You may place your ad in SARC Magazine Club Classified at no charge (although no doubt the Treasurer would be happy to receive donations). Simply write your ad on a piece of paper and hand it to G4FRO for inclusion in the next possible issue.

In praise of topband

Since obtaining my licence some years ago I have found 160 metres, or topband as it is also known, to be the most interesting and versatile of the amateur bands. Topband lends itself to both very effective local communication and to DX operation.

Topband always provides good strength signals from local stations as ground waves are little attenuated on this band compared with the hf and vhf bands. This makes the band a very effective "mobile band" with none of the flutter and loss of signal between hills associated with vhf mobile operation; the only disadvantage being the size of mobile whips, but it is possible to make a whip no bigger than a 2m 5/8 wave and get good results.

Working DX on topband is always a rewarding experience as power is limited and antennas normally end up being somewhat of a compromise due to small gardens. I have worked "across the pond" running 7 watts into 100 feet of wire bent to fit into 60 feet of garden which proves that you do not need a half-wave dipole 100 feet up and a kilowatt of power to work DX on topband as some people seem to think!

In the past few years a lot of countries in Europe have been permitted to operate on topband and most evenings there are many from around the continent to be worked, mostly in the lower part of the band using cw but a few do use ssb between 1.835 and 1.845 MHz.

Home-brewing is easier for topband because of the low frequencies involved, making the construction of stable vfo's and amplifiers a simple, cheap proposition. Most amateurs probably have many of the parts in their junk box to build a simple topband transmitter.

Topband is a gentleman's band (yl's are welcome as well of course) and is the only one which has no band plan and has no need for one. All the forementioned qualities in my opinion make topband the best band we have and one which we should make sure we do not lose through lack of use.

Andrew, G4EQP

Christmas 1984 - Quiz

Looking for Christmas cards at bargain prices in the January sales, we came across a box of quiz questions marked "Best before 1.1.84 - reduced for quick sale". Always ready for a bargain we snapped them up and to avoid them going stale on us if we keep them over the year, it has been decided to have our 1984 Christmas Quiz NOW. It may be that this will gain the club an entry in the Guiness Book of Records for the earliest Christmas Quiz - this is being looked into.

There are just 6 simple questions. Send your entry to the editor by 21 February 1984. The sender of the first, all-correct solution opened will be presented with a seasonal gift from CE0A.

The name of the winner and the correct answers will be published in the next issue.

In the event of any dispute, the decision of the Club Chairman will be final. Good luck and Happy Christmas.

Questions

1. "Good King Wencelas looked out". Which young lady was said to be having a party?

2. What is so seasonal about VK9X ?

3. Which carol is repeated frequently in Wales?

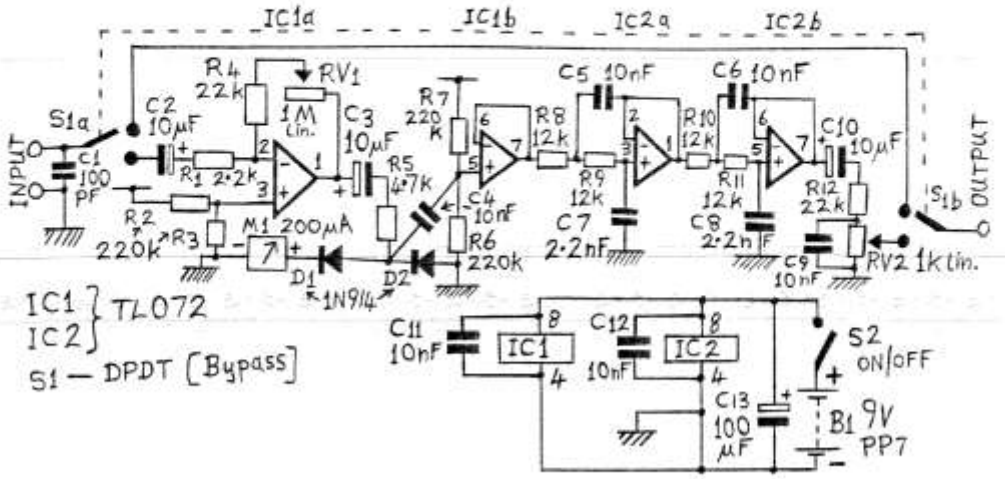
4. He sounds as though he might have 6 cars, five German and one Italian. Who?

5. You might feel better for a drink with him on Boxing Day. Who?

6. (This one is a reject from a Christmas cracker, bought cheap at a rally). What do taxidermists use to stuff dead parrots?

Anon.

Speech processor



This easy-to-build speech processor utilizes just two op-amps.

IC1a is a variable gain microphone pre-amp feeding the clipping diodes D1 and D2. M1, a miniature edgewise meter, indicates the degree of clipping set by RV1. A unity gain buffer (IC1b) transfers the clipped audio to IC2 which functions as a four-pole, low-pass filter. This lpf serves to suppress harmonics generated by the clipper, thereby ensuring a clean signal. RV2 sets the output level, thus avoiding transmitter overload.

The processor must be built into a screened case (i.e. one of aluminium and/or steel construction). C1 is soldered to the microphone socket but all other components, apart from M1, RV1,2, S1,2 may be mounted on Veroboard (unless some enterprising club member produces a pcb... any volunteers? - Ed.).

The finished unit will work with almost any 'phone rig (fm, am or ssb), but it should be switched out during local QSO's where processing is not required. Thanks are due to Roger G4WBV, who helped construct the prototype and also agreed to temporarily forsake his morse key in the interest of evaluating this design.

Steve, G4BWE

Components

R1	2.2k
R2,3,6,7	220k
R4,12	22k
R5	4.7k
R8,9,10,11	12k
C1	100pF ceramic
C2,3,10	10 uF electrolytic 16/25V
C4,9,11,12	10nF ceramic
C5,6	10nF polyester*
C7,8	2.2nF polyester*
C13	100uF electrolytic 16/25V
D1,2	1N914, 1N4148 etc (must be silicon)
M1	200uA moving coil edgewise(miniature)
IC1,2	TL072 (8 dil)

* ceramic at a push