



# SPRAT

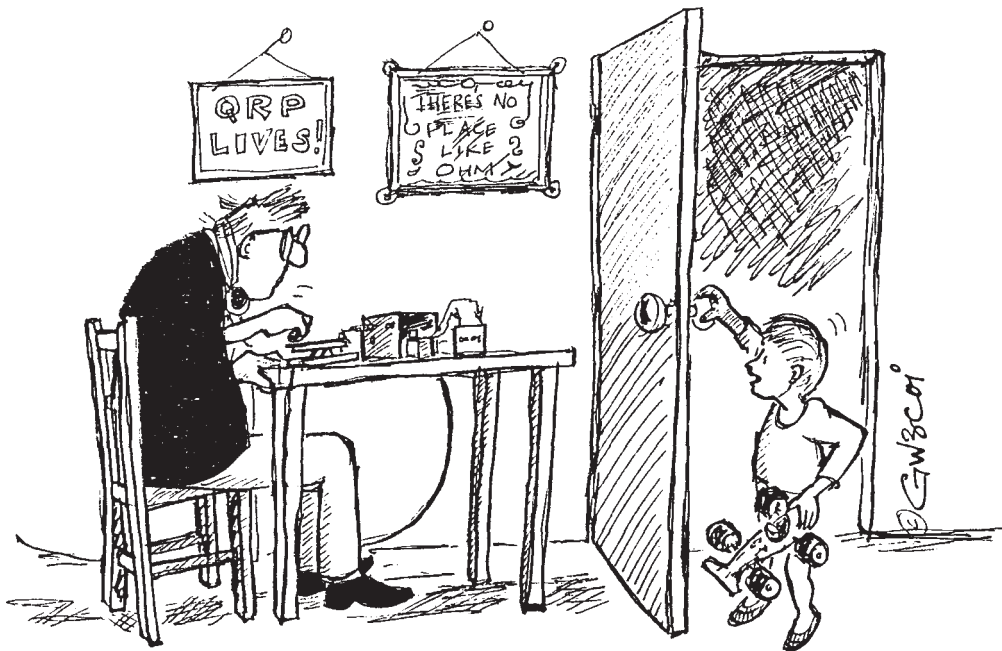
THE JOURNAL OF THE G-QRP CLUB

DEVOTED TO LOW-POWER COMMUNICATION

ISSUE NR. 55

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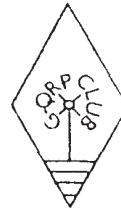
"CAN I HAVE MY BATTERY BACK NOW, DAD? ..."

SEQUENTIAL TR CONTROL - 2 METRE TRANSMITTER - SINGLE SIGNAL HW7  
HW 9 CONVERSIONS - CAR BOOT SPECIAL - SHD TRANSMITTER - L.P. FILTERS  
AF FILTER/CLIPPER - 10MHZ TRANSMITTER - ARGOSY MODIFICATION - TTL TX  
10 METRE RECEIVER - 2 METRE CAR ANTENNA - V.H.F./H.F. POWER METER  
GOOD OPERATING - COMMUNICATION FORUM - V.H.F./S.S.B. & MEMBER'S NEWS

# JOURNAL OF THE G QRP CLUB



Rev. George Dobbs G3RJV



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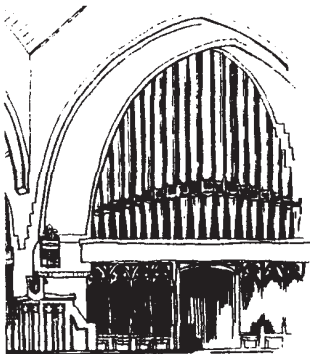
Dear Members

Another summer brings the usual UK crop of RadioRallies and events. I hope to be at several local rallies and the club will be out in force at the RSCB National Convention in July.

We have a major stand at that event with 16 feet of frontage as part of the RSCB main exhibit. This year the RSCB theme will be "amateur radio and youth" and our contribution will be to display and encourage the QRP and Home Construction aspects of our hobby.

On the same theme, Gerald, G3MCK, has been serving as a club representative on the RSCB Study Group working on the proposed Student Licence. Gerald is clearly showing that our approach to amateur radio is ideal for the newcomer.

Hope to see you on the bands - 73 *George*



NEVER WORKED G3RJV?...Here's Your Chance!

On SATURDAY, JULY 30th, G3RJV/A will be active from St. Aidan's Church, Rochdale from 9am to 9pm (0800 - 2000 GMT) WHAT FOR ?

This will be a SPONSORED QRP STATION as my meagre effort towards raising some funds to restore the St. Aidan's Church Organ. That's it on the left. For the experts, it's a Father Willis, 3 Manual, 44 stops and 2,565 pipes.

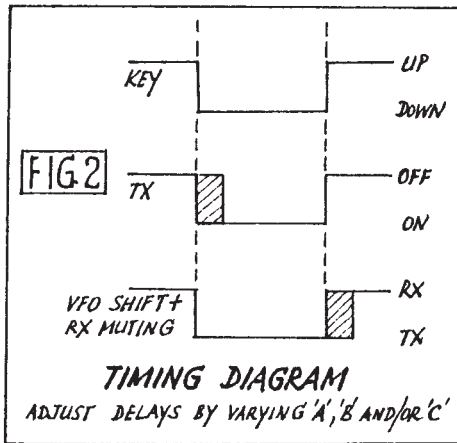
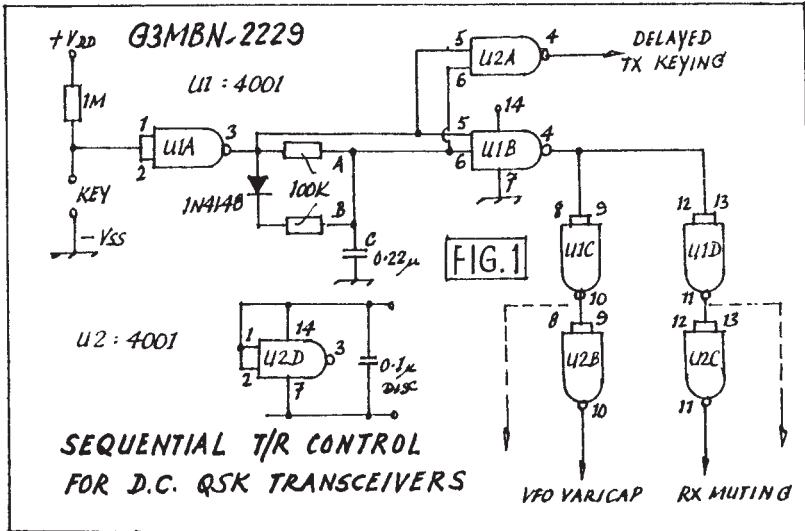
Not QRP! About half a million pounds worth of whistles in need of several thousand pounds worth of restoration. I intend to work QRP for 12 hours and invite people to sponsor me for the number of contacts made. But - I will be making gentle QSOs not contest quickies, so the total could be quite modest.

The Station will be an Argonaut 509 (2w out) with a G5RV from the Church Tower. If you want to work G3RJV/A on that day, Try these bands/times on QRP Frequencies 0800:80m, 0900:40m, 1000:20/15/10, 1200:80/40, 1300:20/15/10, 1700 & last hour on 80m I will be looking for members and two way QRP QSOs all day and US members from abt 1500 on 20/15m. Please write to G3RJV for a SPONSOR FORM or, if you wish, send a fixed donation (Cheques:St.Aidan's PCC). Perhaps see you on that day?

# SEQUENTIAL T/R CONTROL FOR D.C. TRANSCEIVERS

by G3MBN

I have been carrying out some mods to my d.c. rigs for 80 and 160. After a few reports of chirps, it became obvious that there was a timing problem with the fully qsk design. This meant installing a bit of logic to achieve sequential timing during the c/o operations. ie the VFO was still busy changing frequency between TX and RX when the TX was still activated. I have enclosed my version of a suitable circuit for use with any d.c. transceiver. Originally found in ARRL Hand Book 1983. When set up correctly it is extremely effective and simple to install.



McSPRAT MEETING ON OCTOBER 15th AT STRATHCLYDE COUNTRY PARK WATERSPORT CENTRE, MOTHERWELL. ALL INTERESTED CONTACT GM3 MXN Phone 0698 887176.

# ONE WATT VHF TRANSMITTER

By Gordon Pope G3ASV.

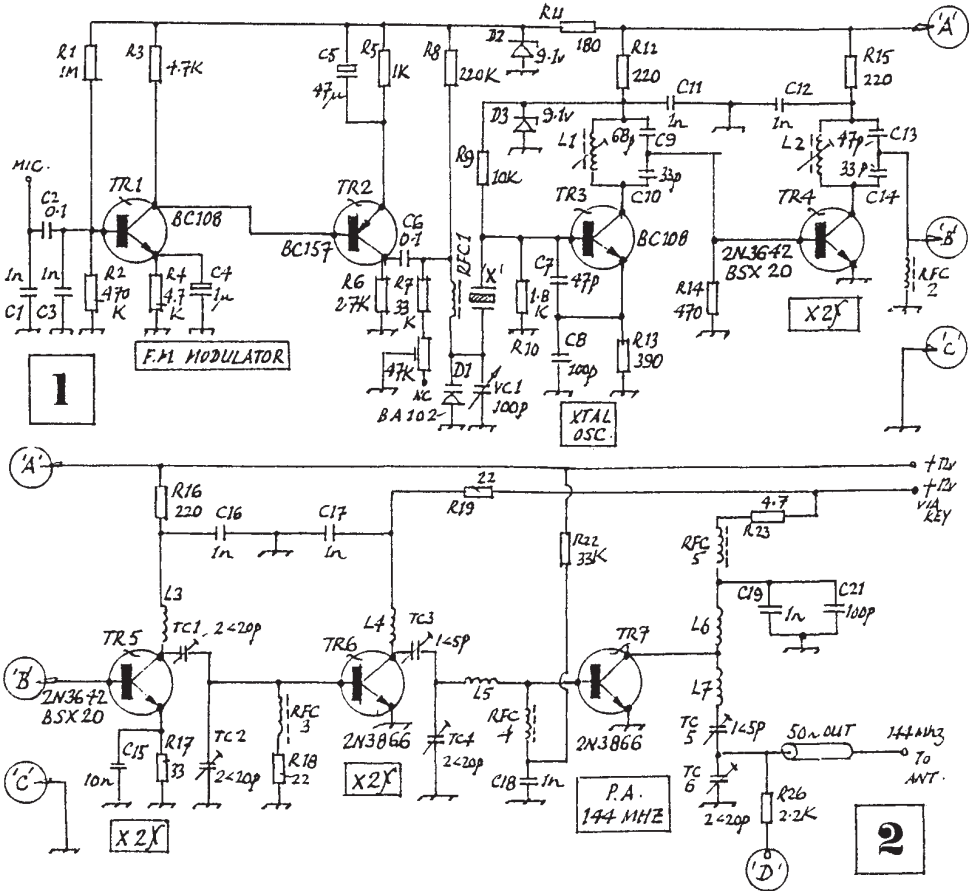
This is the circuit of the one watt 144MHz Tx in use at G3ASV, together with the PCB pattern and component positioning layout. The P.A. stage draws about 100mA in the key down position. I found it was also necessary to key the driver stage Tr6. This was because of carrier breakthrough to the antenna occurred during key-up and was annoying on local contacts.

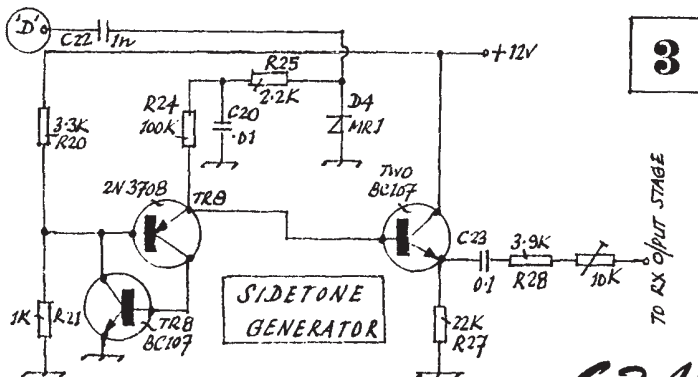
R22 was added during circuit refinement and was not included in the original PCB layout. In my model, I have included it on the PCB pattern side.

The side tone oscillator is not critical and was built on a small piece of veroboard. R.F feed resistor R26 is connected close to the coaxial O/P lead with a short lead to the side tone generator.

I have not included the PCB layout of the modulator as here again it is not critical, although in my model BA102 diode D1 is arranged to have short leads to VC1 using a 16.669MHz crystal and covers about 15KHz on either side of the CW calling frequency.

Tuning up was done with an absorption wavemeter calibrated with a commercial dip oscillator.





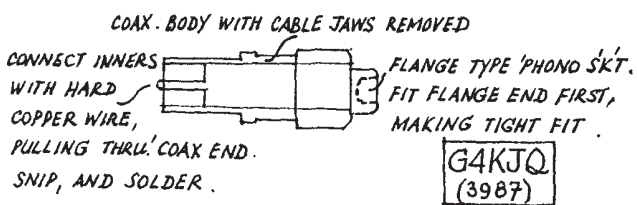
**G3ASV**

**G3ASV TWO METRE TRANSMITTER**

**INDUCTOR SCHEDULE:**

- L1 & L2 : 8 turns 30 swg on 6mm dia former - slug tuned
- L2 : 6 turns 18 swg on 10mm dia former (self supporting)
- L3 : 6 turns 18 swg on .. .. .
- L4 : 5 turns .. .. .
- L5 : 3 turns .. .. .
- L6 : 2) turns .. .. .
- L7 : 4 turns .. .. .

- RFC 1 : 3 turns 24 swg through 2 holed ferrite core
- RFC 2 : 4 turns 28swg through ferrite bead
- RFC 3/4/5/ : 3 turns 28 swg through ferrite bead



**PHONO TO COAX ADAPTOR**

R. Crawford G4KJQ

A flange type phono socket whilst not much use for bulkhead fitting can be saved from the junk box and used with a coax plug to provide a useful adaptor.

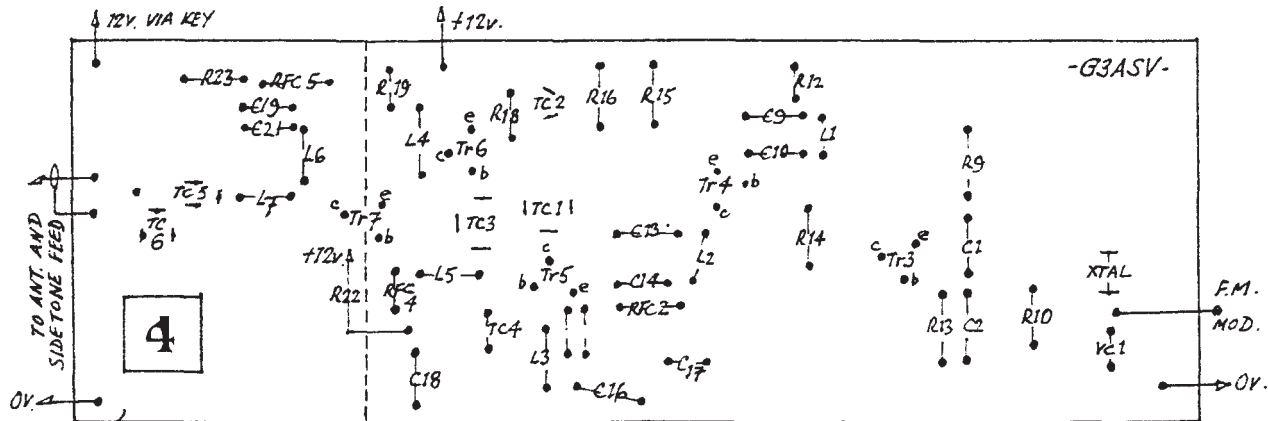
"NOTES ON THE IMP" (see SPRAT 53)  
GOEBQ

I am pleased that the rig seems to have gone down well and hope to talk to a few of your imps

The receiver audio section has more than enough gain; I had included the preamp after the mixer (from Georges mods to the Ju6:GQRP Handbook). Since my phones are rather insensitive and this could possibly be omitted. Alternatively observant readers will have noticed G3HKD's audio filter from the same issue which could well replace the preamp and provide some selectivity.

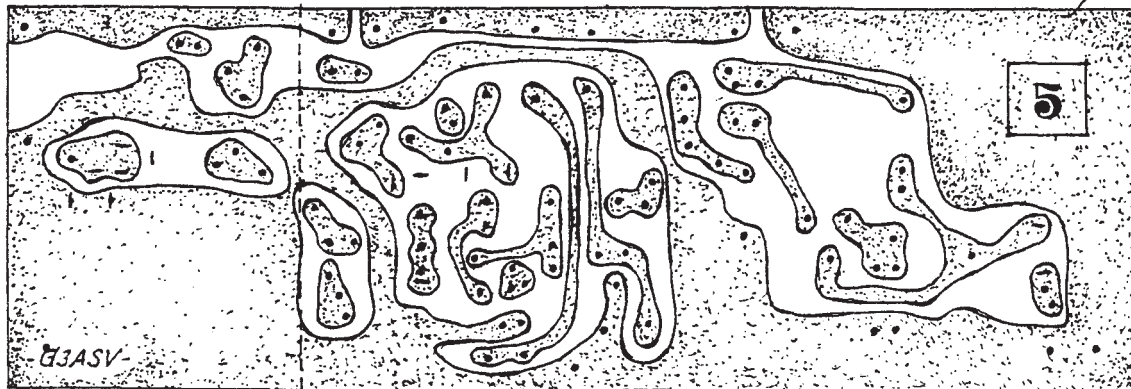
A useful mod is to connect a capacitor from the input to the audio gain control to earth (rather than from the track as in Ian's version), as this seems to cut out a lot of noise and hiss. I used 0.1uF, but experiment to suit your phones and taste.

Anyway I'm well pleased having worked 17 Dxcc with the 250 mw to a half size bent G5RV. Its much more fun than 3W!



G3ASV ONE WATT VHF TRANSMITTER PCB (HALF SIZE)

COPPER SIDE



# SINGLE SIGNAL SELECTIVITY FOR THE HW7 BY LX1BK

Here at LX1BK I started QRP'ing with the HW7 way back in '74. But even after many modifications I didn't like the direct conversion RX, so I changed to a superhet using an XF9B filter out of my junkbox. The oscillator frequencies are as follows:

Band	VFO Frequency	Remarks
14	5 MHz	
10	6.3 MHz	tripling to 19
21	6 MHz	doubling to 12
28	6.3 MHz	tripling to 19

Fig 1 shows the detailed circuit diagram of this modification. The MC1496 comes from a former mod given by DJ1ZB in the QRP circuit book p.71, a SO42 (G3WWS in SPRAT 38) could be used instead (or even the original Q1). It is mounted on the HW7 board near D1.

For the RF amplifier I use a T50-6 with 22 turns and a 6 turn link on the source side and in the drain a 6mm former with a slug tuned to the same inductance. Both circuits are tuned by the two sections of C1 which I made by sawing the stator of a conventional capacitor in two. The transistor and its associated components are mounted under the main circuit board.

TR offset is obtained using a RIT circuit in the VFO, markings on the front panel show the settings for the different bands. This is not very accurate and a neater solution is to adopt the DJ1ZB circuit given in the same article.

IC1 (130.55mm) is mounted horizontally in the rear left corner about 30mm from the upper edge of the back plate. There is enough room for a two stage audio filter and a LM386 audio stage, and even a simple AGC (e.g. Solid State Design P104).

PC2 (32.75mm) is mounted on two long screws immediately above the push switches to ensure short leads. Here I confess that the circuit is not the best; good filtering requires bandfilters not single tuned circuits. However, there are enough contacts to switch a bandpass circuit.

PC3 (30.90mm) is mounted parallel to the main circuit board over RFC1, C28 etc so as to clear the main tuning capacitor.

I make PC boards as follows:

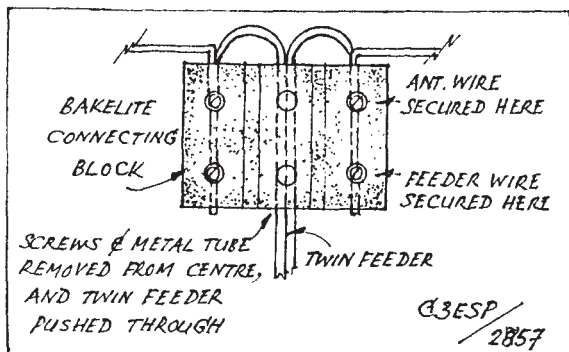
First I make an approximate component layout (often this need only be a mental picture).

I then drill the mounting holes using bits of Veriboard as a template.

I then mill away the copper between the leads using a high speed motor tool.

Components are mounted on both sides of the board to obtain a high packing density. I usually run the B+ line the whole length of one side of the board.

Once the TR offset had been trimmed correctly the modified rig worked very well and netted me quite a few contacts, especially on 10MHz.



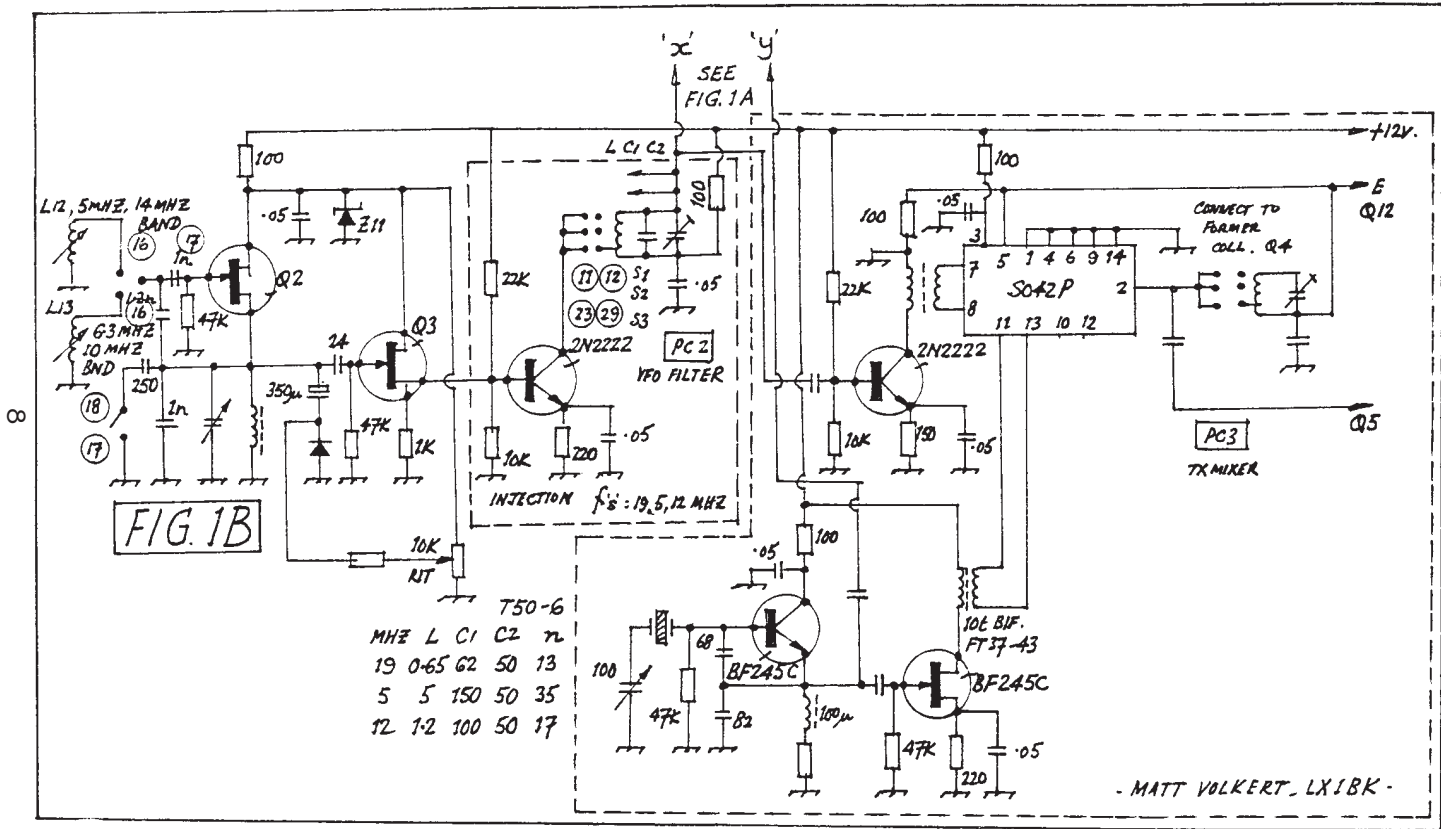
## CHEAP DIPOLE CENTRE PIECE

Walter Farrar G3ESP

Wanting to rig a 20 metre dipole in a hurry, I quickly found enough 16swg H/D copper wire and some twin feeder, but what about a centre piece?

I found a Bakelite 3-Way electricians connecting block (a polythene one may not be strong enough) and the antenna was assembled as shown in the sketch.

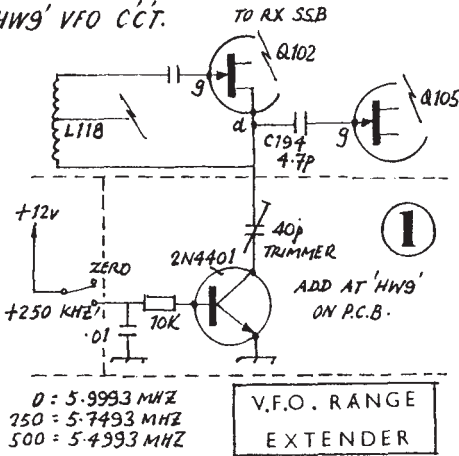
G3ESP / 2857



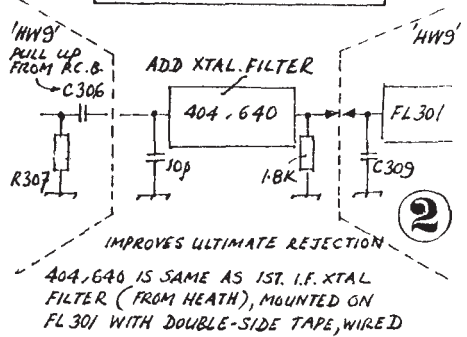




'HW9' VFO CCT.



CASCADE XTAL. FILTERS



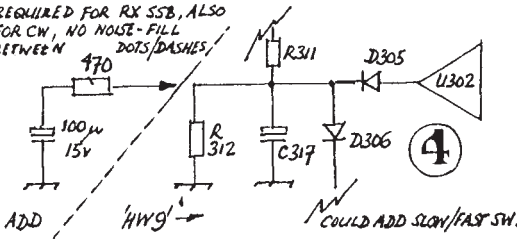
A SELECTION OF HW9 MODIFICATIONS

BY D.A. MICHAEL W3TS

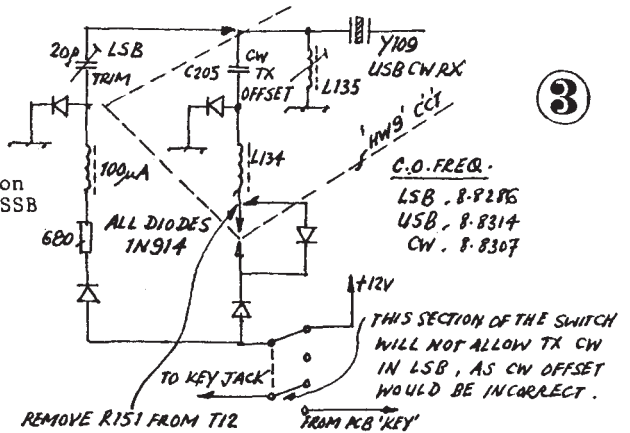
A selection of modifications for the popular Heath HW9.

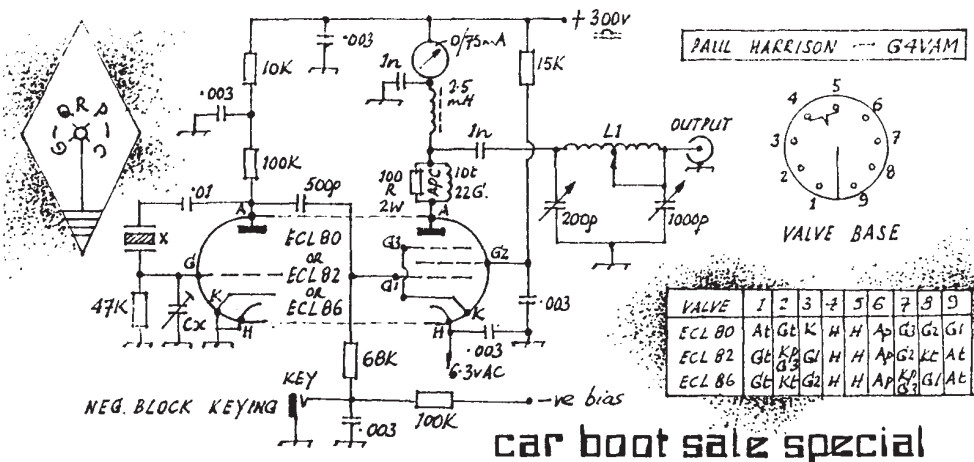
- 1) Extends the tuning range for the reception of SSB signals.
- 3) Enables upper and lower sidebands to be received and includes a CW C.I.O Freq.

REQUIRED FOR RX SSB, ALSO FOR CW, NO NOISE-FILL BETWEEN

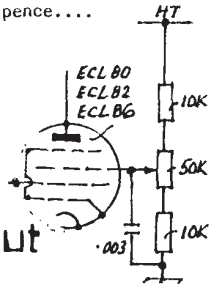


- 2) Adds another crystal filter to improve the rejection offered by existing filter.
- 4) A slow A.G.C. modification required for successful SSB reception. Also improves breakin performance on CW

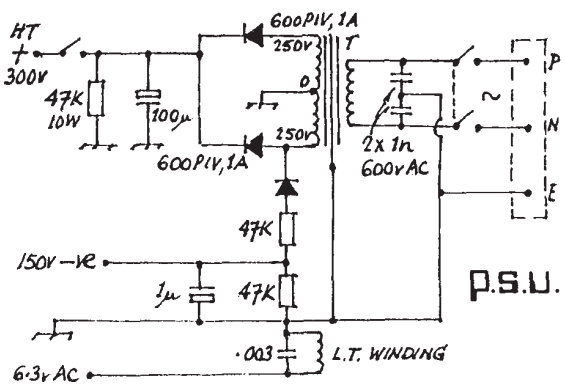




- CAR BOOT SALE SPECIAL Paul Harrison G4VAM**
- The Valve, Transformer and Smoothing Capacitor were culled from an old tape recorder bought at a Car Boot Sale for 50 pence....
- Cx = 0-50pF (adjust for best drive)
  - No component values are critical
  - V1 could be ECL80, ECL82 or ECL86  
base connections given for each
  - Use Fundamental Crystal.
- Test results for ECL86
- 1.8MHz = 6 watts out
  - 3.5MHz = 5w
  - 7.0MHz = 5w
  - 10.1MHz = 4w
  - 14.0MHz = 1.5w
- Pentode section screen.  
Power variation circuit shown
  - L1 : Try 1 inch dia former, 65 turns of 26 swg taps at 5,10,15,20,25,35 & 55  
or a T130-2 toroid for compactness (of size and field)
  - 100 ohm APC = 10 turns of 22 swg on 100ohm 2 watts carbon resistor



I prefer neg. block keying for crisp clean note. The PSU provides a suitable power line. Cathode keying of the PA is possible but remember to earth the grid bias resistor. Remember the key terminals are at high voltage albeit at high resistance. T1: 250-0-250 volts D1/2/3: 600piv, 1 amp.



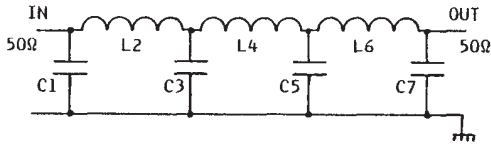


W3NQN STANDARD CAPACITOR 7 ELEMENT  
LOW PASS FILTERS

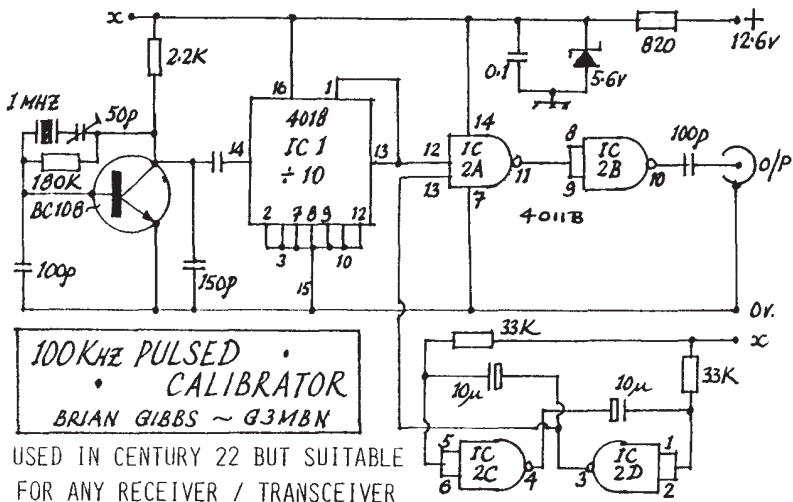
Values calculated by G3RJV from the data supplied by W3NQN for Seven Element Low Pass Filters using standard capacitor values.

REFERENCE : SHORT WAVE MAGAZINE - December 1983 and January 1984.

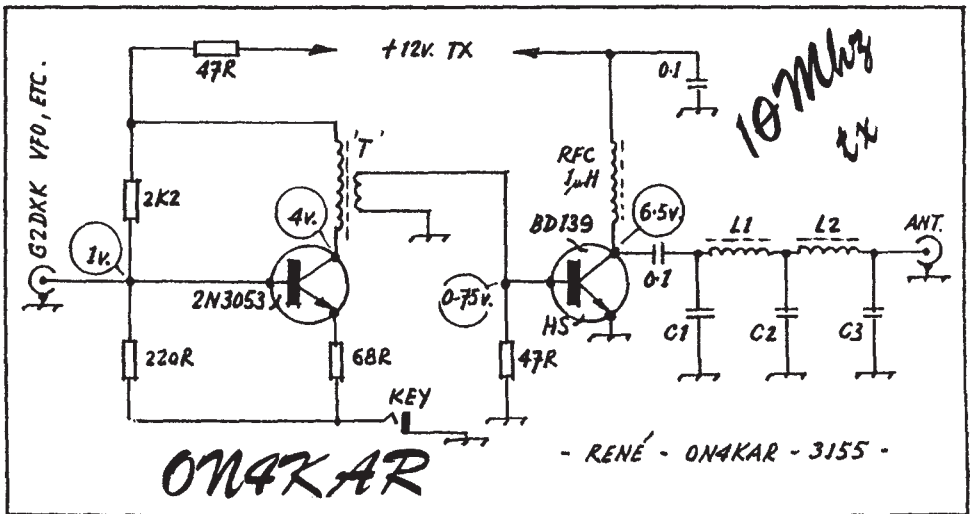
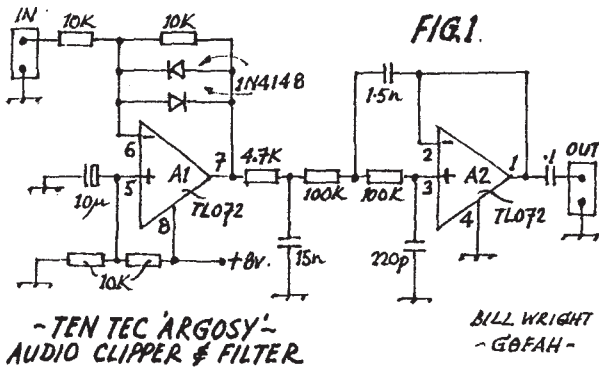
W3NQN SEVEN ELEMENT LOWPASS FILTER CIRCUIT



BAND MHz:	C1/7 pF	C3/5 pF	L2/6	L4	WIRE swg	CORE
3.5	470	1200	25t	27t	28	T37-2
7.0	270	680	21t	24t	26	T37-6
10.1	270	560	19t	20t	26	T37-6
14.0	180	390	16t	17t	26	T37-6
21.0	82	220	12t	14t	22	T37-6
28.0	56	150	10t	11t	20	T37-6
ADDITIONAL BANDS :						
1.8	820	2200	30t	34t	26	T50-2
18.0	110	270	14t	15t	24	T37-6
24.5	82	200,	12t	13t	22	T37-6







10 MHz, 1.5 wtt Output Transmitter  
ON4KAR

The VFO is from G2DXK's design in RAD COM for June 1984 returned for 10.1MHz.  
 The Driver is of W3TS (SPRAT 44) but the transformer is made from salvaged TV set shielded IF transformer : Prim. (4.5uH) 52 turns of 0.4mm enam wire on 5mm dia slug tuned former  
 Sec. 8 turns of 1mm enam wire on Prim. winding  
 Tune for most power out.  
 PA transistor : BD139 (with heatsink) L1=L2 : 4t 1mm wire on 4C6 core (Mullard)  
 C1=C3 : 270pF, C2 530pF (2 x 270pF in Par.), RFC : 1uH.  
 Quoted voltages are RMS on TX measured with an Heath AM5218 VTVM.

## SWITCHABLE RF AMP FOR THE TEN-TEC DIGITAL ARGOSY

By D.A. Michael, W3TS

The ARGOSY II is a very good QRP/QRO transceiver, but when I use mine on 80 and 40 metres it seemed to be more sensitive than really needed causing the AGC to pop on attack and a higher than necessary background noise. Most signals were way over S9 and my normal noise was S4. I was looking for a way to reduce the ARGOSY II sensitivity by about 10dB.

At first I thought of adding an attenuator pad, but that does not help the dynamic range or reduce the internal noise from the RF amp stage. After looking at the schematic of the RF/MIXER BOARD 80784-D, I thought of turning off the RF AMP Q2 in RX only (it needs to be on for TX or no output results as it is a TX pre-driver stage). Turning off Q2 makes a great attenuator - it was too good - signals were very weak. Next thought was to reduce the amplification of Q2. So I clipped off one end of C12 (0.01) the emitter bypass in the Q2 emitter circuit. That worked very well, it reduced the gain about 16dB on RX and TX. I experimented a bit using my step attenuator and an external xtal calibrator as a signal generator and by putting a 100 ohm resistor (1/4 watt) in series with the best compromise between gain reduction and sensitivity loss.

Now for a way to have full gain on TX and switchable gain on RX. I don't have a noise blanker so I used the noise blanker switch as my RF GAIN reduction switch. I tried a diode and a transistor as a switching element. The diode showed a slight loss over the transistor in the TX mode, so I stayed with the transistor (the transistor also requires less "on" current).

Figure 1 shows the final circuit. The noise blanker switch cable #24 is hooked up to the circuit. I didn't have a small mating connector so I used 18AWG solid copper wire as pins. I then soldered smaller 24AWG stranded hook-up wires on them to reach to the transistor circuit. This circuit is built ugly-style on top of the RF/MIXER board near Q2 and C12, with the grounded end of C12 pulled up out of the board and the control transistors emitter pushed into the C12 ground hole.

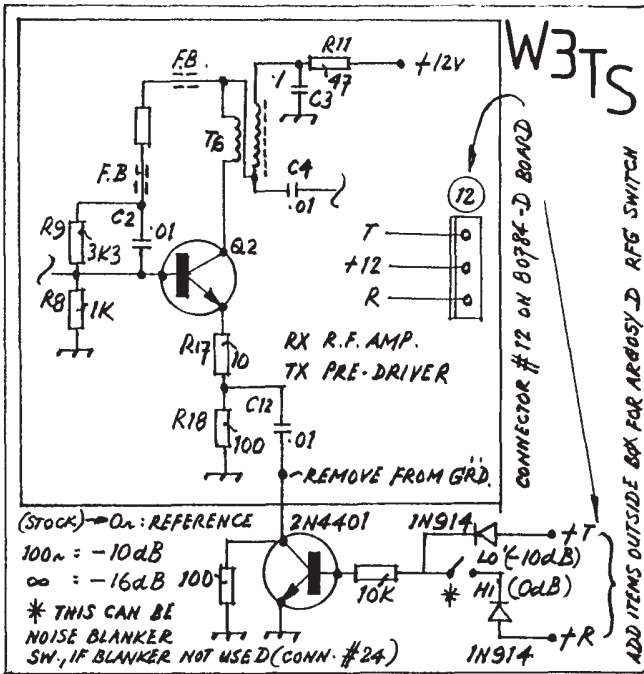
The result is very pleasing, with reduced internal noise from the RF AMP and an improved AGC action because not all signals are S9 and over. The antenna background noise is less than S1. Also improved was the DYNAMIC range and the crystal filter rejection because the mixer sees 10dB less signal.

### A FEW OTHER DIGITAL ARGOSY IMPROVEMENTS.

I have added a 220ohm 1/4watt resistor across the ANT. plug 33 on the RF/MIXER board. This cuts down the AM station BCI that I was having on 80m cw. I live 1 mile from a 1KW AM station; this helps. I believe because the RX ANT circuit is not shunted with much resistance and a peak voltage from out of band high power TX'S can cause some intermod in D1 and D2. Maybe D1 and D2 should be PIN diodes - but I had good luck with the simple shunt resistor.

Also a hiss reduction can be had by shunting C17 (0.01) on the IF-AF board 80785-D with another 0.01 (or change C17 to a 0.02) and shunt R35 (100k) with a 470pf. This improves the high frequency roll off of the audio preamp stage.

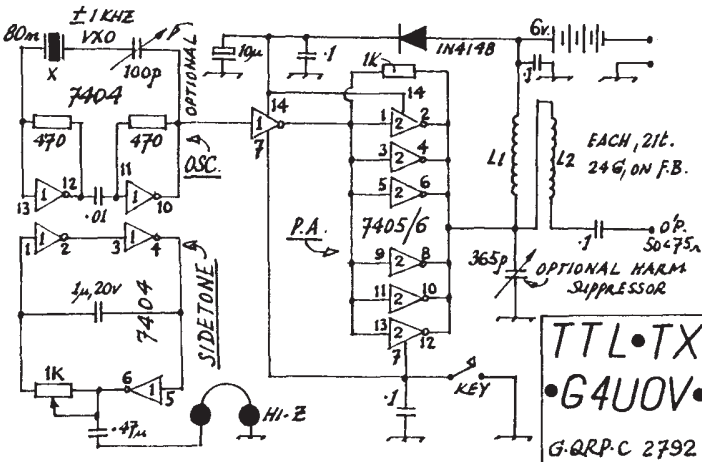




### TTL TRANSMITTER FOR 80 METRES

By Derek Scofield G4UOV

The circuit is a TTL TXM for 80 metres with approximately 400mW output. It is designed around two TTL inverted chips. The first 7404, two gates used as a crystal controlled oscillator buffered by gate 3, fed to 7405 o/c invertors in parallel. The circuit works very well. I have only tried it so far locally, but had 599 from about ten miles on a long wire



## A SIMPLE 29MHz DIRECT CONVERSION RECEIVER

By John Young BRS33339

(Re-printed from Oscar News)

The receiver described is a simple direct conversion set designed for the reception of the OSCAR satellite. It was built more than three years ago and the only change to the design since then has been the introduction of two tuned circuits at the input to eliminate interference from a local AM CB station. It has been used with simple dipoles, ground planes and beam antennas, both as a fixed and as a portable station.

The circuit comprises a cascade RF amplifier using 2N3819 or 2N3823 fets, (the 2N3823s will give the better noise figure), a diode harmonic mixer (1) driven by an oscillator/buffer (2), a low noise AF pre amplifier preceded by a simple low pass filter, an AF power amplifier. The output socket J1 from the AF pre amplifier may be used to drive a tape recorder (Mic input), or may be connected to the domestic hi-fi (phone input). An LM380 IC amplifier is incorporated to drive an external loud speaker (8 to 35 ohm) or headphones.

The RF amplifier, mixer, LO/buffer, AF pre-amp. and AF power amp. were each constructed on separate boards such that future modifications may be made without rebuilding the whole receiver.

Although designed for the section of the 10 metre band allocated to amateur satellites, the receiver will operate over any 300KHz segment of the 10 metre band, (this being determined by the bandwidth of the RF amplifier). When setting up the receiver for the first time, it is recommended it be tuned to the SSB portion of the band, and when working satisfactorily be re-tuned to the satellite portion of the band. The setting up procedure is as follows:-

Set the oscillator tuning capacitor to full mesh and its associated 3-30pF band spread trimmer to half mesh. Tune the oscillator to 14.250MHz by adjusting the tuning slug in L2. The 1K pre-set pot (set LO) should be at 75% of maximum. The frequency of the LO may be checked against another receiver or by a frequency counter connected to the source of the buffer amplifier, (via a 1K and 0.1uF in series).

Connect an antenna and headphones. Turn up the AF gain until a hiss is heard in the headphones. Tune T2, followed by L1 and T1 for maximum increase in noise output. Tune the LO until an SSB station is heard and re-peak T1, L1 and T2 for maximum output. When the receiver is operating satisfactorily, retune the LO to 14.725MHz and peak up T2 followed by T1 and L1.

If you now disconnect the antenna there will be a noticeable drop in the output noise level, even if you live in a quiet rural area. Connect and disconnect the antenna while adjusting the LO drive for the highest ratio of antenna noise to receiver noise. Finally, by adjusting the bandspread capacitor and L2 alternatively, set the LO to cover the range 14.700 to 14.750MHz at the 10% and 90% points of the main tuning dial.

- (1) Pat Hawker G3VA. Russian Direct Conversion Demodulator. "Technical Topics", Radio Communication, April 1977
- (2) J. Young BRS 33339. The Cadet DC Receiver for the Novice Radio Communication, October 1973



## TWO METRE CAR ANTENNA

Udo Velten DL1HCU

From an idea by Fans, PA0NO in CQ-DL

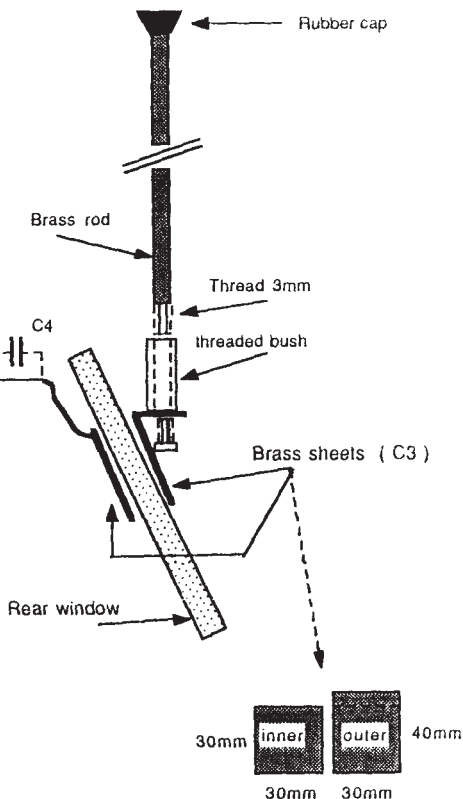
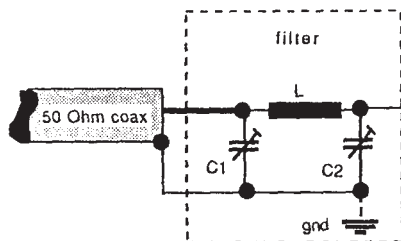
A simple low cost antenna which needs no holes in the chassis of the car.

**FUNCTION:** A radiator is fed via a pi filter and a serial C (C3) made from two brass sheets, mounted in rubber silicon on the inner and outer rear window.

**RADIATOR:** a 50-53cm long brass rod, dia 3mm, Cut and try.

C1/C2: 30pf trimmer, add 20pf parallel if mismatched. SWR to 1:1 if possible.

L: 4 turns with dia of 10mm.



C4: Only necessary if the wires of the window heating cause any danger (+12v) to rig. I use about 10nF - not critical  
**GROUND:** No mention by PA0NO. I used a handy and prefer clear gnd conditions. Works with a rig thats grounded via the power supply.

Its no DX Antenna but its a fun idea. Cover the radiator with thermo shrinking tube if you wish. Do not forget to degrease the window before mounting the brass sheets. from my experience the thin brass radiator produces flutter qsb when driving. A stiffer material may help but thread cutting etc is more difficult on a steel rod.

For easier mounting/dismounting of the radiator, solder a 3mm nut on the thread end of the rod at the upper end of the thread.

Do not worry about heating wires in the window. According to Jan's and my own experience, there is no problem with resonating heating wires.

## A SPRAT TIP VIC FLOWERS G8QM

A recent visit to WH Smith has solved the problem to find a suitable binder for my copies of SPRAT. They sell a very neat "9 x 7 ring Binder" at #1.20. Using a single hole punch, I make two holes at the ring spacing of 8cm apart, equidistant from top and bottom of each SPRAT and 1/4" from rear edge. This clears the printing nicely. Each file holds twelve issues comfortably and of course they are easily removed if required. The contents of each binder may be displayed neatly on the spine by means of "Letraset" numbers and letters.

## THE SUFFOLK TROPHY

**Elegibility**, any member of the G-QRP club.

**When Annually** on Region 1 QRP Day, 17th June

**Period** Any six hours during the day, taken in not more than two periods. Start/Finish times of periods to be shown in the log.

**Contacts** Contacts with any station in IARU Region 1 count

**Form of Contact** Normal QSOs, there are no special contest exchanges.

**Bands** Any bands for which the operator is licensed.

**Power** Not to exceed 3 watts RF output (CW) or 10 watts PEP (SSB).

**Scoring** Each Region 1 country contacted on each band counts 1 point. The claimed score should be the total of IARU Region 1 Countries contacted on all bands used. For example 6 countries on 7MHz and 16 on 14MHz give a score of 23. Only 1 contact per country per band is allowed, irrespective of mode.

**Enries** These should give name, address, call, power and mode used, brief equipment details, and the call sign, time and band of each contact claimed for scoring purposes. A summary giving the claimed score for each band and the overall claimed score must be included.

**Entries to** A.D. Taylor, G8PG, 37 Pickerill Road, Greasby, Merseyside, L493ND to be received by 17th July. Any received after that date will be disallowed.

**Awards** At the discretion of the Committee the winner will receive a memento trophy and a book token for £15. Second and third will receive merit certificates.

## THE G QRP CLUB YEARBOOK : A New Service to Members

Members have been enquiring about the Club Callsign/Number Membership List and we are pleased to announce that it will be part of a FREE booklet which will be issued to members with the Autumn SPRAT. The booklet will also contain a full range of information about club services and useful advice for QRP amateur radio

## THE R.S.G.B. NATIONAL CONVENTION 1988 JULY 15th, 16th & 17th NATIONAL EXHIBITION CENTRE, BIRMINGHAM

The G QRP CLUB will be there with a Major Stand and Display  
We invite all members to visit our stand  
Please let G3RJV know if you can give some time on the stand  
or simply report to the stand early on the day you attend

### CLUB MEMBERS DELEGATES AT RADIO SCOUTING SEMINAR

Jennifer, G8WVO, member 4575, wife of our Membership Secretary, G4HYY, was a UK delegate for WAGGGS (World Association of Girl Guides and Girl Scouts) at the second European Seminar on Radio Scouting. At the seminar, held in Geneva, she met another club member Emilo, EA1MQ. Emilo went on to operate the ITU station with the special call 4U3ITU.

PLEASE NOTE THAT THE MEMBERSHIP SECRETARY, G4HYY, WILL BE AWAY FOR FOUR WEEKS FOLLOWING THE R.S.G.B. NATIONAL CONVENTION. This may mean some delay in membership services and the enrolling of new members.

PIRATED CALL : Watch out for G4FKD (Adrian is in the USA at present)

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We regret to announce the death of Wally Yarwood, G6LKC, 2931. Wally served the club well as one of our SPRAT distributors and his cheerful help will be missed.

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We regret to announce that the name of G3BOV, whose death was announced in the last issue, was Edward, not Jack, as stated.

EUROPEAN CW ASSOCIATION Tony Smith G4FAT

New EUCW Chairman

From January 1, 1988, the Chairman of EUCW is Tony Smith, G4FAT, nominated by the G-QRP Club. He succeeds Edgar Schnell, DL6ML, who has been chairman for the last three years.

AGCW-DL YL-OM CW Party

To be held as part of AGCW-DL's "Year of CW YLs", this event will be held on Monday evening, 8th August, 1988, from 1630 to 1800 UTC on 3540-3560 kHz.

Reports from YL operators = RST + 88, eg 59988

Reports from OM operators = RST + age, eg 59935

Scoring:YL-OM and OM- YL QSOs = 5 points

:OM-OM and YL-YL QSOs = 1 point

:QSOs with DK0AG and DFOACW = 10 points

Logs to be sent by 10th September to:Mrs Gisels Rink, DL6ZAR, Rontgenstr. 36, D-6450 Hanau, west Germany

Worked Scandinavia on CW Award

There has been so much interest in this new Award with its beautiful Scandinavian landscape that SCAG. the Scandinavian CW Activity Group has revised its rules. The number of awards will no longer be limited, SWLs are welcome, and it is now a little easier to gain the award!

European stations need to work 75 CW stations from five of these countries, LA OH, OY, OZ, TF, and SM. At least five of these stations should be SCAG members whose membership number should be obtained during the qso. Only QSOs made after January 1st 1988 are valid for this award. Applicants should send a list, confirmed by two other amateurs, of the calls worked showing date, band, QTH, name and SCAG number where appropriate. No QSL card are required.

The fee for the award is US \$7, or DKK50 sent by postal giro to DK-7192185 or 17 IRCs. All applications to R.Meilstrup OZ5RM, Bavnestien 6, DK-2850 Haerum, Denmark.

SWLs should send a self-addressed envelope, plus one IRC, to obtain a copy of the SCAG membership list to assist in identifying SCAG members, SWL applications should be confirmed by two local amateurs or registered SWLs.

QRP BESIDE THE SEASIDE

Saturday September 10th GREAT YARMMOUTH

YORK ROAD DRILL HALL, WEST DOOR

Commence 1400hrs BST to 1900hrs

Talk in on S22 from 1315 hours Call sign G3YRC

Provisional programme

1400 to 1420 Registration

1420 to 1430 Welcome by G3OEP

1430 to 1500 Tape by G3R3V

1500 to 1600 Available 15 minute slots for guests to speak

1600 to 1630 "East Anglia The area/s contribution to two world wars with special reference to Charles Lamber alias AJ Alan.

1630 to 1730 Exhibition of Home brew equipment and judging

1730 to 1800 Prize giving and raffle

1800 to close down your chance to natter

Prizes for best piece of home brew and longest distance travelled. Mini flea market. Equipment testing: full size G5RV and 2 metre colinear antennae available terminated in PL259. Anyone staying overnight will be taken on a tour of the harbour which was once the World's leading herring port the following morning if desired. A small library of technical books will be available for reference purposes.

## GOOD QRP OPERATING

Gerald Stancey G3MCK

There's no doubt that operating standards today aren't like they were in the good old days; in fact they never were and never will be! However there is no doubt that a general improvement in operating standards would be to the benefit of all concerned. This is not meant to knock the recently licensed operator. In fact some of the worst examples of poor operating can be heard from holders of old calls; we all get careless and sloppy from time to time.

The following suggestions are not meant to be exhaustive and are based on my observations on 80m CW. However I believe that the basic principles apply to all bands and modes. Firstly, good CW operating has very little to do with speed; it is all about common sense. Now we all do this don't we? All the time?

Many QRP CW QSO's are conducted under marginal conditions. This means that your sending must be easy to read and error free. You can be sure that the only time the other operator correctly copies your call will be the one time you send it incorrectly. For example he may well only read G-MCK, or G-CK but you can bet your boots he will read G2MCK!! The next thing is to get the basics of the QSO over quickly; RST, QTH, name, G-QRP number. Of these the most important, and most abused is the RST. Just go and look in the manual and see what the R numbers mean. "I am reading you with very little difficulty", this sounds like a reasonable way of describing many QSO's doesn't it? That is R4. How many times do you hear R5 being sent when it should be R4?

Giving a poor report often seems to be considered to be an insult so operators often shy away from telling the truth. However giving an honest poor report is most helpful to the other man because if he is a competent operator it will enable him to judge how to conduct his side of the QSO. For example, the answer to questions like should I rag-chew or should I rubber stamp will be obvious.

With marginal conditons only three things can happen. They can improve, they can remain the same, or they can get worse. There are no prizes for guessing what always seems to happen in practice. I find nothing more annoying than having given a guy a report of 339 to have him come back and repeat verbatim everything I have sent to him and then as an afterthought give me information. For example don't come back on your first over with a transmission like this; "RRRR GE DR GERALD VY PSED TO MEET YOU ES TNX FER FB RPRT OF 339 339 339 = = = VY FB ON UR QTH OF STAINES STAINES ==== VY FB ON UR G QRP NUMBER 2148 2148 2148 === = = WX HERE IS RAINING ES TEMP 10 C 10C 10C ==== MY NAME IS FRED FRED ES MY QTH IS LEEDS==== = MY QRP NUMBER IS 71123 71123 ===== UR FB SIGS ARE RST RST RST 559 == SO BACK TO U ES HW DO U COPY ??? ". Note how the report is only sent once right at the end. My friends that is not an exaggeration. Of course you and I never do things like that do we? In fact you are right that the above example doesn't happen. What happens is the other guy sends it but I don't receive it because he has faded out part way through. The result is that neither of us get a full QRP QSO with a club member to put in the log.

As I said at the beginning the secret of good operating is just common sense. What is appropriate under good conditions with a known competent operator at the other end is lid-like operating when the conditions are poor and the other guy is unknown. Slick operating is getting the key information over quickly and accurately and has very little to do with high speed CW, especially if the operator is dotting the i's and crossing the t's, a complaint known as el-bugitis. So lets not relax, get sloppy and set a bad example to the rest of the amateur fraternity. Let's try and make QRP synonymous with first class operating.

LADDER FILTER CRYSTALS : Still available a few sets of 8 crystals on 8913 or 9063KHz plus two carrier crystals. supplied with suitable circuit for £5.00 inc. postage from John Haliburton, GM4AQO, 32Glenberrie Rd. Kirkcaldy. Fife.

WANTED : DRAKE 2B, 2C or 9R59DE or similar in GWO and reasonable price.  
G2BYP, 4 The Crest, Whitehaven, Cumbria. (0946)4910.

FOR SALE : ICOM IC202 2m CW/SSB Portable Transceiver. Complete with mic, whip antenna, Internal Ni-Cads & Charger £80  
GOHTR, TEL: Tamworth (0827) 898024 Anytime.

QRP COMMUNICATION FORUM Gus Taylor G8PG

37 Pickerill Road, Greasby, Wirral, Merseyside. L49 3ND

OK/G ACTIVITY WEEKEND 1988 This event generated excellent activity despite the fact that one or two leading Czech QRP men were tied up with work or family matters. Despite this no less than 27 OK QRP stations were worked from the UK, made up of 14 OK1s, 6 OK2s, and 7 OK3s. Rather surprisingly the best band turned out to be 3.5 MHz, with 15 different OKs worked from the UK as against on 12 or 14 MHz. 10.1 MHz was certainly not as good as last year, and the muf never got above 14 MHz. Awards have been made to OK3CUG, best OI log, OK1AYH, runner up, and OK3CPY for the best 14 MHz performance in both 1987 and 1988. UK stations receiving awards from OK are (once again) G4JFN for best overall, G4CFS for an outstanding 3.5 MHz performance, and G3VIT. The whole event was very successful and the next one is planned for 21/22 January, 1989. as there was no activity at all reported on 1.8 MHz that band will be dropped for the 1989 event (but before Top Band buffs write and complain, there may be something special for them in the next Winted Sports!)

THE WORK OF OUR 28 MHz Es OBSERVATION TEAM during 1988 has been highly praised by Ron Binns, G30TE, who is carrying out a major study of 28 MHz propagation. Having heard of our work he asked to borrow the logs, which were sent to him. To quote from his letter of thanks "I was going to say that your information supplemented my own - but I rather think the reverse is the case!" Nice to know we were doing something really useful! One important point Ron Makes is that he believes there is strong correlation between very short skip on 28 (allowing inter-G working) and trans-Atlantic openings, so next time the band is full of strong Gs dig down and listen for Ws. Incidentally no less than eight pages in the April, 1988 issue of QST are devoted to Es. What G QRP C did yesterday the world does tomorrow!

CHELMSLEY TROPHY for 1987 goes to John, G3DOP, for an amazing log of results using his loop 6 inches above ground. DX included BY, EA8, EA9, W, VE, and FY5, together with a mass of European countries, all worked with 1 to 3 watts output. Well done John!

IT'S THE SAME THE WHOLE WORLD OVER...." I live in a flat on a housing estate. There are many TVs around, so I try and keep my antennas invisible!". No, the member concerned does not live in London, Birmingham or Glasgow, but in a fairly small town on the other side of the Iron Curtain.

SERVICE WITH A SMILE is the motto of your Communication Department and we do get some strange requests. Recently a member asked us to obtain an important document to help him prove he is a British citizen. Within a couple of weeks it was on its way to him, thanks to some excellent co-operation from Elder Dempster Lines.

CONGRATULATIONS TO PETER, G3XJS, who has confirmed contacts with no less than 50 countries on 3.5MHz when using 3w or less.

DO NOT FORGET THE SUMMER RAMBLE 10-19 JUNE and including International QRP Day on 17th June. Use our QRP frequencies to the full during this period, please.

SAD NEWS OF THE DEATH OF HARRY BLOMQUIST, K6JSS comes in a letter from Bob, NH7M. Harry founded QRP ARCI in 1961, so we are the poorer for his passing.

QRP SUMMER RAMBLE 1988

JUNE 10th to 19th

Including International QRP Day on June 17th  
USE THE QRP FREQUENCIES TO THE FULL OVER THIS PERIOD

1843-2569-7030-10106-14060-21060-28060 KHz. CW

3690-7090-14285-21385-28885 KHz. SSB

Logs and Reports to G8PG



THE SQUARE DIPOLE Cut a dipole using 468/f =feet or 143/f =metres to calculate the length. Then erect it in the form of a square, using an insulator to separate the free ends. Feed it with 75 ohm balanced line, or 75 ohm co-ax and a balun, using a transmatch at the rig end of the feeder. Erect it vertically. Gain in the direction of the fed end is within 1dB of a dipole, and at the other end it is about 4 dB down on a dipole. Gain can be reversed by moving the feeder from one end to the other, or you can rotate it. This is easy - the 28 MHz version is only slightly over 4ft square and the 21 Mhz version 5 feet. Hung on a piece of cord across my shack and firing east the 21MHz version worked all Europe, several UA9s and (off the back) W1, W4 and VE3 in a few hours of tests. A 28 MHz version worked well, including my first ever HZ1. A nested version with the 28 MHz antenna inside the 21 MHz antenna was then tried, and worked very well when fed via a common feeder. If made from tubing a rotary version would look like a super TV or vhf fm antenna. It could also be used horizontally, a 7MHz horizontal version only occupying a 17 foot square. It will work if cut to formula, but dipping and trimming give it that little extra performance. Power used for the tests was 3 watts.

IF YOU CAN LOCATE YOUR SHACK AT THE TOP OF A WEST-FACING CLIFF then you can do what David, CT4RL/p, did during the 1987 QRP ARCI Contest. David erected a long, narrow loop antenna from the top of the cliff to two poles down at the bottom. Directivity to the west was terrific - over 40 trans-Atlantic QRP/QRP contacts including W6, W7 and HI3 - and with the cliff cutting off signals from the east, virtually no European QRM. At last we may have a rival to those big wires at GM30XX/A

WHY NOT MORE QSY? Taking 3.6 MHz as an example, time and time again one finds QRP stations QRMing each other around 3560 when there are great empty spaces around 3570. Amateurs just seem to be scared to QSY. I agree that modern transceivers do not help in this respect, but one can still move away from the QRM. To do so satisfactorily certain rules must be followed, however. They are these. The station requesting the QSY must state what he wants clearly. "QSY up2 is meaningless - it could be by 10Hz, 10Khz or 10MHz! One must either say "QSY UP (or DOWN) 3 KHz?" or QSY 3571?" Although the frequency is specific, note the question mark, which makes it a request. Whether or not the request is accepted is entirely up to the other operator. He may be XTL, and unable to comply, or he may know a local is blasting away on the proposed frequency. He therefore has three courses open to him. He can say "SRI NO QSY, suggest a different frequency to that proposed, or say "OK QSY 3 UP". If he gives either of the first two answers the other station should agree and act accordingly. Once agreement is reached the original proposer should send QSY 3 UP NW, and the other station R UP. The onus is then on the original proposer, who should find a clear spot approximately 3 UP, then call the other station, if necessary doing this at intervals until communication is re-established. Note that before moving it is his responsibility to ensure that the move has been agreed, and that the other station knows the new frequency and is ready to make the change. Used properly a QSY can often help greatly, but if not carried out properly it can lead to disaster. Learn the proper procedure and dodge at least a bit of the QRM.

AWARD NEWS. Congratulations to the following.

QRP COUNTRIES. 200: all cw for GM30XX; well done!!

125: G3XJS. 50:EA3EGY. G4ASL, SV1UY. 25:G4VPV, 5N9GOM.

WROKED G QRP CLUB. 640: all cw, to GM30XX!!

460, G3XJS, 260 G3MBN, 240: G3CQK. 180:G4WZV. 120:G4UGC.

100:G4NBI. G4CFS. 80:G3ZJJ. 60:G4VPV. GWODNR. G4AYS.

40: G4ZGJ. G4UIQ. EA3EGV. G4IJV. 20:UP28FE.

TWO-WAY QRP 40:G8PG. 20:G2DAN. 10:G4VPV. UP28FE. G4UGC. G4CFS.

QRP WAC. EA3EGV

FOR SALE : TEN TEC CENTURY 22 Transceiver with internal keyer board and xtal calibrator as new. £275. G3MBN. TEL: (0225) 810621.

WANTED : BACK ISSUES OF SPRAT before 44. C. Schiotz, K2PGB, RD3 Box 379. Ringoes, N.J. 08551. U.S.A.

124 Belgrave Rd. Wyken, Coventry. CV2 5BH. Tel: (0203) 617367

I'm still trying to get used to my new club number " 4444 " which Dave gave me as the computer didn't like my old one and kept leaving me off the mailing list.

I've not been very active on the bands since last SPRAT but I'm hoping to remedy that at the weekend during the RSCB UHF/UHF contest (May 7/8). I have been in frequent contact with that well known VHF Qrper Dave DOG3A, albeit via the repeater CB3WK. If you are local and want to give me some news then I am usually within earshot on the repeater between 07:45 & 08:15 local time. The VHF bands seem to be pretty well dead at the moment with not much activity on any of them except the usual waffled on 2m. However, a dedicated few in Warwickshire are doing their best to keep 50 & 70 MHz alive and kicking until the Dx chorus starts up.

I've been trying to improve my 50 MHz set up and have been experimenting with polyphase audio phase shift networks & 50MHz VX0 to generate SSB. This has the advantage that only one crystal is needed for both transmit and receive if a direct conversion Rx is used and a fair chunk of band is covered per xtal (abt 60 KHz).

It used coaxial phasing lines to phase shift at RF and apart from cutting these to length it requires virtually no setting up if a commercial double balanced mixer (eg MD108) is used. I'm brewing my own from Toroids and BAT 81 diodes.

Also this month is a useful average reading power meter for HF & VHF. It is designed for 75 ohms, but it doesn't take much imagination to make it go at 50 ohms or any other impedance you fancy. Over to Harry Popov LZ1BB:

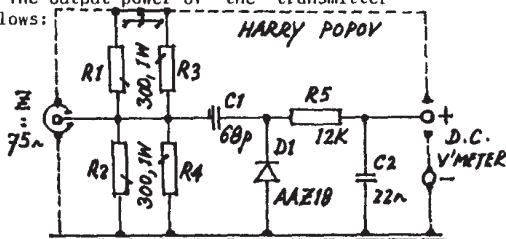
VHF /HF POWER METER HARRY POPOFF LZ1BB

R1 and R4 - 300Ω /1W. If you need 50Ω input you should add another two resistors in parallel to R1 and R4. All components are gathered in a small metal box. It could be constructed from PCB. Measurement is made with the base multi-meter with input impedance 30KΩ /V. The output power of the transmitter over 75Ω load should be calculated as follows:

$$P \text{ out} = \frac{U^2}{R \text{ load}}$$

or in our case:

$$P \text{ out} = \frac{U^2}{75}$$



I was very surprised that this simple project was absolutely correct up to 5w output even on 144Mz when compared with commercial watt meter. Powers over 5 watts are dangerous for the load resistor R1 - R4 and D1 - AAZ18. With 8 watts D1 was destroyed. So I think that for our purposes up to 3w out. This is an ideal cheap weekend project. If the multimeter has different input impedance than 30kΩ/V then R5 should be calculated as follows; R5=0.414 x z/input impedance of multimeter. R1 - R4, C1 and D1 should be mounted as close as possible to the input socket.

I can send any other information about the wattmeter and also the diode AAZ18 to all interested members.

Now some information for your column. In 1986 during Perseides I made Ms QSOs with IK2DMF on SSB and RB5EF on CW. The power was 3 watts output and ant was a 9 ele F9FT. So QRPers don't worry so much about your small power for Ms. Have a try.

Harry Popov, LZ1BB, Bratya Bakston, 207<sup>A</sup> A.6. SOFIA.1618. BULGARIA.

HAVE YOU WRITTEN AN ARTICLE FOR SPRAT YET ?

We do not ask for much. A simple sketch of the circuit, perhaps a layout, and a few notes. Clearly Mark All Component Values. We do the rest.

SSB NEWS Ian Keyser G3R00

ROSEMOUNT, CHURCH WHITFIELD, DOVER, KENT.

At last the SSB Net is underway again! At the time of writing there has been no decision about changing time and frequencies but as I write this week by week there may be developments by submission date

I've had a letter from Larry G0HTR and he reports problems with the Rotary Club net, this is always a problem and the morning that it happened I could not hear anything either! Last week I came on early and called the QRP Net and finally managed to form a net of four of us.

Mike G3WWS (894) using a home brew TRX with the famous MLX PCB into an inverted L aerial.

Dave G4XNP (2825) with an Argosy at 5 watts, aerial information not noted. And Graham G4CHK (4317) who could not manage it on his home brew QRP so called in with his FT200 into a 130ft long wire.

I formed the net using 100 watts from my TR7 and then reverted to my "KITIEN". This runs 10 watts PEP and is made of various modules. Am "FT707 R.F. PCB" into an "MLX PCB" forms the heart. "THE KANGO VFO" and "MULTI CHANNEL OSC PCB" forms the local oscillator, and the TX signal amplified using the "CIRCUIT P.A. MODULE" and filtered using the "KANGA L.P.F. PCB". Transmit/receive functions carried out by the Kanga "TR PCB" in tandem with the MLX changeover system. Two of these have been built, the other one by Dick. G0BPS..

How for a real stir, but I am fed up QSL cards!!!!

One of my little foibles!! I consider the QSL card to be a bit of a waste of time!!! (that will ensure that I get a good return of mail for next SPRAT (Hi)). My reasons for saying this is that I do not have to prove that I have had a QSO, if someone does not want to believe me that is their hard luck. For awards perhaps there is some need but as an award is for the satisfaction of the person who receives it, it can give no satisfaction if it has been gained dishonestly!!!

Finally I cannot afford the cost of the cards and perhaps more important the time to fill them all in. Anyone who wants confirmation of a QSO with me may willingly send a card with an SAE and I will attach my call sign label and sign the card and return it by next post.

I know this is going to cause a stir and perhaps even dislike by some but I am sure that I am not alone in this view.

On a more cheerful note I have had a letter from Chas GW3SB (1221) with a circuit of the homodyne receiver. He recalls in the old days of using the homodyne receiver oscillating hard and keying the H.T. rail for CW transmit and making a transceiver of it!! I remember building a regen detector for 2 metres and increasing the feedback on transmit and grid modulating it.... Using a 1T4 valve I could go portable and work the locals with it. I remember DXing to the next village 4 miles across the valley!!

The big drawback with this system is the radiation on receive. A form of R.F. amplifier must be employed to reduce this and this would increase the complexity to make the idea non viable... but then perhaps someone will not prove me wrong.

That's all for this time folks, let me know your news and hope that the European QRH keeps at a level that I can work you all on Sunday mornings on 3690 at 0900 local time.

FOR SALE : FT277ZD (101) DC/DC Converter, CW Filter, Fan, Mike. Mint £500  
FT290R, Mint, Nicads, Charger, Case, Rubber Duck. £275  
Tel: 061-301-3750 \_ Will deal for Argosy QRP Transceiver.

FOR SALE : HW8 complete portable package, in carry case with 12v Nicad supply  
Key, leads etc. Buyer Collects. Adrian Heath, (0793) 762970

INFORMATION WANTED : on the HAMMERLUND HQ-120 Receiver by Ron G6SZW  
25 Kinloch Way, Immingham, South Humberside. DN40 1PL.

TECH TEC PM3A : Advice wanted on current replacements for the PA transistors.  
Have been advised 2N3924 but cannot find a supplier  
H. Bayliss, GDOIDU, 44 Heather Cres. Pulrose. Isle of Man.

EXCHANGE : Argosy for Argonaut 515, must be mint. GOFTO. Tel: Bolton 657410

## Members News



Chris Page G4BUE

"Alamosa", The Paddocks, Upper Beeding,  
Steyning, West Sussex, BN4 3JW

The Yeovil Club once again put on an excellent QRP Convention says G3XJS. Peter wants to know how they even arrange for the excellent weather! The attendance was up on last year with everyone made to feel very welcome. Peter was disappointed that the G-QRP-Club did not offer better support, as the event has so much emphasis on the very ideals that our club stands for. Perhaps I can use Peter's comments as an excuse to explain that everything the club does depends on volunteers and sometimes members are either unable or just unwilling to give up their time for the benefit of the club. If you are going to Yeovil next year or any other event where you feel the G-QRP-Club should be represented, please consider getting together with two or three other members and setting up a club stand. There is plenty of material available to help you including items the club has for sale, all we need is you to volunteer. Frank, G3BFR was another member to mention the convention, confirming a great time was had by all.

My planned three week trip to the USA taking in the Visalia Convention, Dayton and the FOC Dinner in Connecticut had to be re-arranged at the last minute due to one of my boys (Gary) going into hospital for an operation. We had been waiting since November and they called him in on 20 April, the day I was booked to fly to California!! Hurried telephone calls to the travel agent resulted in me just visiting Dayton. I took the opportunity to attend in a low key capacity, (QRP that is!), to enable me to get round and see all the other attractions I have missed in previous years. The flea market was as big as ever and those hospitality suites at Stouffers....highlight of them was bumping into WORSP and WB9TEU. Ade sends regards to all his friends in the UK. He was in top form, no doubt due to his temporary QSY to the Florida sunshine. Paula is the editor of the ARCI's QRP Quarterly, and a first class job she is making of it.

The ARCI gang had their club stand in the same position as last year, and it was doing good business each time I visited it. I understand over 85 QRPers attended the QRP Dinner at The Spagetti Warehouse on the Friday evening, and over 100 attended the Beer and Pizza QRP party. The ARCI are already well ahead with QRP events for Dayton 89, information from Jim WLFMR who is the overall coordinator.

Whilst I was at Dayton, my usual USA travelling companion G3VIT was visiting OK land. Colin had a great time, meeting OK1CZ and OK2BMA and others from the OK QRP gang. I won't steal his stories as no doubt he will be writing them up for SPRAT. Before we leave the social scene may I remind you of this years Summer QRP Party here at "Alamosa" on 13 August, details on page 25 of SPRAT 54. Come and meet the PA QRP gang, who will now be PA3DMM (new call sign of HD0MAM), PE1LIF and PE1MHO together with PA0AHS coming with G3VIT.

G4SIS has changed his call to ZC4FJ. Frank has been scanning the bands for the QRP gang on 15 and 20m. He will be there several years and hopes to get on 80m when his antenna is fixed. G3G7Q, who was CN8CY until recently, is now in Nigeria awaiting a 5N0 call. AI2H is now in Delaware from Japan where he held a JA call for two years. During that time Barry worked lots of Korean, Russian and Chinese stations with his HW9! He said getting a JA call is a long and tedious business and he can assist members trying to get one. G4RMY is now G2AGH, Tony having had his original 1939 call re-issued, and yet another change is G4FSP who is now Z14HB. George has worked into the UK a couple of times on QRO with a temporary bent wire between the trees. Finally G4TEU/2 is now G0JUV as he is now 14 years old and able to obtain his own call - congratulations Ed. His photograph was shown in SPRAT 49 when he was 12 years old and (believed) to be our youngest active member. He is building the Howes TCVR system for 20m.

Now an apology to G4FAI who is NOT the President of FISTS, my informant got it wrong! Tony has, however, been elected Chairman of EUCW and asks me to mention the next Fraternising Party on 19/20 November, more information nearer the event. G8QM has been in hospital and

after recuperation has resumed his QRP contacts with VK2AFN on 20m, "to prove the first one was no fluke". Vic has built the Heathkit SW7800 digital read-out GC RX which received signals from the first switch-on. He has a desire to return to SW BC listening and wanted to prove he was still capable of some serious construction work.

GW3FSW takes me to task for not mentioning QRP RTTY in my column. Ian would welcome the opportunity to contact other members interested in RTTY. He intends using an Amstrad 8512 and ST5MC terminal unit. (Look back through my columns Ian as I can recollect at least three occasions when I have mentioned members active on QRP RTTY.) K2RGB, despite working 85 DXCC, does not find many G QRPers around 14060. Chris frequently hears activity from G land on 3560 but no QSOs yet. KD8FR is using an 80m horizontal loop at 20ft for all bands, and has worked Europeans on 15m, VE7 and PY on 10m and NP4A and KV4FZ on 40m with his 2w. Sounds a good antenna. Lowell is QRV in the major contests with his Century 22 in between sending it back to Sevierville! It keeps losing the final transistors and Ten-Tec cannot find out why!! VE3FQW is also using a horizontal loop, but in the form of an emergency antenna. Tom has erected a 66ft loop in his basement recreation room. One end is at ground level and the other about 2ft above it, and matching it through an MFJ ATU has given him 28 DXCC including lots of Europeans.

Some of you may have seen my review of the AFtronics Superscaf filter in the May edition of Practical Wireless. In the true G-QRP-Club spirit GOFAH wants to build his own and says the transistors can be obtained from Qardon Electronics, Slack Lane, Derby, DE3 3ED. Bill says the S3528I is £4.26 and the S3529P £3.32 plus VAT. GMLRHV is active on 2m NBFM often using 300mW and has worked members GM4VJY, GM4XQJ and GM4UYE. Mike built the Howes DCRX80 in a biscuit tin and has received VE7 and W1 with it. As he says "Not half bad for a £20 kit in a biscuit tin".

GOFTO worked his first JA on 15m with 3w. Bob also had a QSO with G4SIS who was using a helium filled balloon holding up 132ft of wire to an Argonaut. G8IB was pleased to receive a QSL card from UPL6WW who was running .05w to a 7el 20m yagi! Dug has built the W3M0N filter and says it makes his "Argonaut sound like a 940". (From some of the reports I've heard about 940s, I'm not sure that's too much of a compliment!) G3MBN has built a new shack to replace his caravan which he is keeping for /P operation in the Summer. G3XJS reports a long list of DX including PY0, KL7, TI, A9, T22, 8Q7, TY, VK9 and KH6 for new ones. Peter throws down a challenge, now the sun spots are bring us better conditions, the fastest WAC on QRP. To start he offers 3h 35m on 14 March when he worked AX4XA, JG2PFD, PY0FC, UB4INW, EA9GS and KALMKJ on 15 and 20m. Let me know about your fastest WAC. Not to be outdone GAJFN offers T26, 9Q, KP2, 5L, ZF, TI and HS on 10m, plus ZL on 20m. Bob said he enjoyed the OK Tests very much and made over 200 QRP QSOs in the last Winter Sports.

WF6U is planning his 22nd trip to the UK in September. Hollis will tour the UK on a Britrail ticket and plans attending the AGM of the Huddersfield Canal Society, his other interest. N3IK is planning a cycle tour of the UK this summer and WB2CZB will be part of a DXpedition to Saba Island between 7 and 14 July. They will be on all bands and particular attention will be paid to multip hop paths to the UK, EU and Africa on 6m. Mario will actively solicit QRP contacts on the QRP frequencies. WD9IWP, one of our new members, met K9PNG on 40m and is now part of the W9 group with K5VOL who operate the ARRL Field Day.

G4KKI is using a very much modded HW7. Bill has built a new front end/mixer based on the SO42P from SPRAT 38, a RIT as per DJ1ZB in the Club Circuit Handbook, and switched attenuator. He has replaced the meter with two others, one for RF out and the other as an S meter with the Howes S meter board. The TX/RX relay has been changed for a modern encapsulated one, a four pole switched CW filter fitted and finally a pair of 2N3866s have been fitted to the PA. WIDMD has been worked three times on two-way QRP with it. Bill took it to his local club in Manchester to demonstrate QRP, and using an indoor G5RV he worked HA, SP and UA on 20m, the latter giving him a confirmed 599 report. Needless to say the club members were very impressed. G4XNP is having a problem with stray coupling when changing from RX to TX on his Howes 20m TCVR. Dave has been playing with sloping dipoles based on my SWM articles, and his results will be a separate SPRAT article. N3IK has also been experimenting with antennas. He uses his "Hammer" antenna which has given him WAC on 40m except Asia and EU and SA on 80m. Perhaps Ike will give more information about it so other members can try the "Hammer".

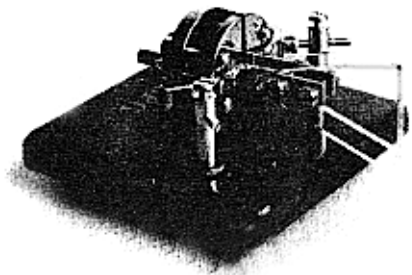
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G3FVC is using a 1 valve TX giving 2w on all bands and built in 1949. The FSU uses Cossor S130s for voltage stabilisation and Eric says they make a lovely sight flashing in step with his keying. The TX has AM capability with a 6SL7/6L6 choke modulator, plus the original D104 mike, but he hasn't used it on that mode for years! G3ZJJ says his Oner "goes like a dream" and finds he gets just under 1w out on 15m. With his 150ft end fed antenna Mike has worked UL7 and wonders how many other members have successfully used Oners on 15m. He has tried 10m, and although he gets some output he also gets a lovely chirp!

I intend being at NEC both days and also the HF Convention at Oxford in September, perhaps CU there? Let me know how your summer goes, (by 20 August please), and don't forget the fastest QRP WAC.

73

Chris



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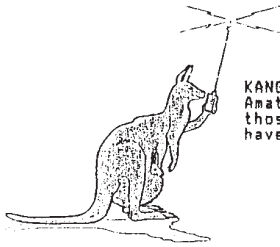
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