

Q R M

Bulletin issued by the Northern
Branches of the Wireless Institute
of Australia, Tasmanian Division

P.O. Box 1010
Launceston
Tas. 7250

March 1977
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MEETINGS

March 8th North West Branch, Lakins Hall, Ulverstone. 8 p.m.
March 11th Northern Branch, S.E.S. rooms, Charles St. 8 p.m.

A.O.C.P. CLASSES

Kings Meadows High School, Block B, room 35

March 14th Electrical Laws and Circuits
March 21st " " " "
March 28th " " " "
April 4th Vacuum tube Principles

CONTESTS

March 5/6 ARRL DX Phone contest
March 5/6 YL - OM CW contest
March 19/20 ARRL DX CW contest
March 12/13 Commonwealth contest 1977
March 26/27 CQ WW WPX SSB Contest
March 26/28 BARTG Spring RTTY contest
April 12/13 DX YL to W/VE YL CW Contest

MARCH 18 Deadline for the April issue of Q R M

ANNUAL REPORT : 1976 / 1977

Meetings this past year have improved from last year, with an average of 34 members in attendance. Lectures also have been varied, with possibly the best being by Professor R.H. Thorpe, Chairman of the Australian Consumers Council, as well as two auctions this year and the usual equipment display by members. We saw seven associate members join the Branch this year, with at least three of these members becoming "A" Grade, as well as two limited licensees throwing away that "Z". Congratulations to you all.

The equipment store this year has had a very successful turnover, mainly due to the efforts of people like Daniel Apted, Graeme Reardon and others, and of course to you the members who supported it. However, it must be discouraging to those people running the store to find members buying interstate merely to save a few cents. Remember, the larger our purchases, the better deal we will be able to obtain for you. Again, thanks to all concerned.

On the social scene, functions were well supported by members, with the two main functions being, the progressive dinner in September and the Divisional Hamfest in November. For the progressive dinner, my thanks go to those people who made their homes available for this function. As far as the Hamfest is concerned, this year was the best yet. To all those who had anything to do with the organising, again, many thanks on a fine effort, from the membership.

Repeater VK7RAA has done a mighty job again this year, with, if my memory serves me correctly, only one major breakdown. The repeater is still the prime channel of communication in the Branch, and I would like to take this opportunity to thank all those people who have helped to keep this device on the air.

The Branch has done its fair share toward the presentation of the Sunday morning Divisional broadcast, and it is pleasing to see some new stations on the roster list, especially for the 80 metre re-broadcast. We also saw a 27.125 MHz re-broadcast started in this Branch this year.

On the educational side of things, the Y.R.C.S. and A.O.C.P. classes have, I think, adequately filled a need, and again, my thanks to those people who have contributed to these activities.

"Q R M " has continued to be the voice of the Branch, with the standard being at its usual high level. John van Staveren VK7JV, has diligently applied himself to the job of Editor, even though he could have done with more support from the members as far as articles were concerned. Thanks again John.

A 6 metre beacon was established in the Branch, mainly due to the efforts of Joe Gelston VK7JG. This beacon, together with the more active VHF operators, is doing its bit in keeping the Northern Branch in touch with other VHF operators interstate.

As last year, regular meetings have been held throughout the year by the executive members, and I would like to thank them all at this stage, for their support and enthusiasm throughout the year. Finally, I would like to conclude this report by thanking you all for supporting the Branch

Northern Branch Notes by Graeme VK7ZGG.

The Northern Branch meeting was held on the 11th February at the S.E.S. rooms in Charles St. The attendance was about 30 with visitors Dale Barnes from Hobart and VK7ZFR Junior.

The meeting was told that the AGM of the Division is now to be held at the Down Towner and it is hoped that as many members as possible will attend.

Joe reported that there is still a supply problem in the equipment store with some equipment and components on back order for several months and one supplier requiring an order for \$100 before supply can be effected.

General business discussed included the National Field Day, the A.O.C.P. examinations and the A.O.C.P. classes which will commence this year with an introductory lecture on Monday 28th February. Classes will begin on Monday 14th March.

We were pleased to pass two applications for membership and welcomed Alan McKercher and Edward Ratcliffe as associate members.

The submission to the Minister on CB in Australia was discussed at length and members were asked to give their ideas to Reg VK7KK for inclusion in our submission.

A lively discussion was held on last months Editorial in QRM with members giving their views (rather forcefully at times). The meeting closed at 2150 hrs and much further discussion was held over supper following a rather fast run to the "milk factory" and back by Malcolm VK7ZMM - he apparently doesn't take milk with his drinks.

Incidentally the treasurers report this month showed a very healthy bank balance of \$1628 with xmas sales down to \$299.51.

We'll hope to see you all at the next meeting which is the AGM for the Northern Branch and you will all no doubt, be raring to take a place on the executive and do your bit towards the running of the Branch.

Thats all for this month

73 Greame VK7ZGG

ANNUAL REPORT 1976 / 1977. cont. from page 2

and the W.I.A. by taking part in activities held throughout the year, which has made the Branch what it is today. But at the same time, be prepared to pitch in and help whenever there is a need and not just sit back and watch others do the work.

73 Brian Yeoman

Branch President. 11/1/77

Notes from the North West Branch by Max VK7MX.

We are sorry to report that our QRM correspondent Lindsay Johnson has been indisposed for some weeks but is recovering slowly.

Our February meeting was well attended, with 17 licensees, 9 associates and visitors present. The usual business was transacted. We were sorry to receive Winston's (VK7EM) resignation from the beacon and repeater committee due to pressure of work. Thanks Winston for your valuable assistance in the past. Tony VK7AX offered to help until the annual meeting next month.

We were fortunate to have Reg VK7KK present and he was prevailed upon to address the meeting concerning council matters. Members were very interested and Reg answered some relevant questions.

It was reported that the organisation handling the Port Sorell Field day have matters in hand.

It was unfortunate that our speaker from the Rural Fires Board was unable to be with us due to the bush fire situation. However in place of this, Graham VK7ZAO, Ivan VK7ZAO and Adrian VK7ZAT gave a demonstration of the making of circuit boards by the photo etching process. The meeting was very impressed by the technique which resulted in a very professional job.

During the field day contest several members took to the field. VK7ZAO, VK7ZAO and VK7ZAT together with several assistants operated from the Walls of Jerusalem in the Western Tiers. VK7ZKC and VK7ZBL were heard from Table Cape. Some base stations were heard co-operating.

During the month we have enjoyed several good openings on 2 metres and to a lesser extent on 6 metres. Not only have repeaters been worked but numerous contacts to VK3 have been made on simplex channels.

We have had several visitors through the area including VK6XY Aubrey, VK3YRS Ian and VK3BLD Bob. They received the usual N.W. Branch welcome on 2 metres.

After an unfortunate blow up to the powerline to our installation at Loonah, repairs have been made and both the 2 metre and 432 MHz beacons are now operating from this area.

That is about all for this month.

73 Max VK7MX

Everybody is leaving us.

Byron VK7BD has left the North and is now residing in Hobart. Byron tells me that he may be there for up to three years, he has been given the opportunity to further his qualifications and career in Telecom.

Mark VK7ZMC has left Tasmania for Canberra to attend the University there, good luck Mark and don't forget to come and visit from time to time.

DX notes by Col VK7LZ.

To the ardent DX'er the best DX is of course a new country, so the best DX of the month would vary considerably from amateur to amateur, however the best stations heard during the month in my opinion would, irrespective of mode, include the following;

1.8 MHz N6DX, K6SE, W7RM, JA3ONB, JA7CEO.
3.5 MHz ZL4LR/A Campbell Isl, XE2AAU, VE1ZZ.
7 MHz ZK2AT, GI3IVJ, GM6RV, SP2JKD,
14 MHz 6W2UQ, 6W8DY, OY3H, OHØNJ, JT1KAA, 6Y5MR, VE2SN/SU
 UO5OBW, FM7WE, 3Z2A, WB6EWH/VQ9.

Of the above the best two would undoubtedly be 6W2UQ and 3Z2A, the latter who gave his QTH as Tristan da Cunha must as yet be treated as "very doubtful", although my beam heading was West of South, the prefix is that of Poland, however in DX the best maxim is, "work'em first, worry later" 6W2UQ is a good bet, he has worked several VK7's and has promised to send all cards air mail, Zane likes to rag-chew, our QSO lasted 30 minutes. Whilst talking DX mention must be made of the six Launceston amateurs who banded together to work portable in the John Moyle Field Day, they were VK7's BC, DK, JV, LZ, TB and ZDA, although VK portable stations were first choice, DX was worked on all bands from 144 MHz to 3.5 MHz, yes interstate VK's are DX on 144 and 52 MHz, over 20 countries were worked and everyone thoroughly enjoyed the experience. Ed VK7HE was also operating portable but no info is available on Ed's exploits.

As most of my limited listening time was confined to the lower frequency bands no specific call signs can be listed for 21 and 28 MHz, I understand that both these bands had some very interesting periods and would be well worth watching, Bill VK7AK has spent some time on 28 MHz and has worked several W's including one only using 5 Watts SSB. It has been reported that VK9ZM Willes Isl. is operating on 28.560 MHz this could well be a new country on 10 metres for a lot of people.

Space will not permit the full list of stations heard quoting times and frequencies, however in very limited time I listed 75 countries so there must still be interesting DX for everyone in spite of the low sun spot activity, if more info was available, particularly from the other States it would be extremely helpful for everyone, unfortunately A.R. has not been able to compile a DX page for some time which must be missed by many DX'ers throughout Australia.

QSL information.

HKØCLS via WAØCLN, S79FC via ON4CH, ZK2AT via K3RLY
9D5A via WA6AHF, WB6EWH/VQ9 via WA4FVT
6W2UQ, C/o U.S. Consulate, Dakar Senegal.
S8AAA (Garth) C/o P.O. Umtata.
TJ20J, Box 39 Port Lame, Cameroun

73 GD DX Col VK7LZ

VHF notes by Kevin VK7ZAH.

Having being away from my home QTH for the majority of the month, these notes are compiled from information supplied by various sources.

The most noteworthy achievement has been the establishment of a new 1296 MHz distance record, VK5 to VK6. This is a very fine effort and I would think it will be a long time before this record is bettered.

The 6 metre band still opens and stations can be worked if one listens at the right time on 52.050 or 52.525 MHz. Joe VK7JG informs me he worked stations on 6 metres on 31st January and 18th February. A good opening occurred on the 12th February to VK5, 2, 4 signals were very strong with the band remaining open for about 4 hours. It seems that VK7ZMM was the only Northern station active at the time. Daniel VK7ZDA reports that he worked a number of stations on the 13th of February while operating portable in the National Field Day from the Asbestos ranges.

I believe the 2 metre band has been in fine shape with openings nearly every day. Whilst at Stanley I was able to hear repeaters 2, 3, 4, 6, 7, 8 from VK3. Joe VK7JG and Peter VK7PD appear to be the most active stations in Launceston at the moment. On the 11th, 12th and 13th of February the 2 metre band was open, the latter 2 days being the National Field Day, there were a large number of VK3 stations out portable for the Field Day and most achieved a high score.

The VK7, 2 metre beacon has been relocated at Loonah (N.W. repeater site) but at present is using one of the repeater aerials, vertically polarised. Even so the signal radiated is much stronger in Launceston than from the previous site. I would think that the beacon should now be heard in VK3 when the band is open.

The only information regarding the 432 MHz band is that the beacon at Loonah is once again operating.

That is all the news I could dig up for this edition.

73 Kevin VK7ZAH

FOR SALE.

Barlow Wadley XCR-30 receiver complete with power supply, in very good condition \$200.00

Ray Kilby 19 Greenway Avn. phone 441849

EQUIPMENT STORE

As Joe Gelston VK7JG is away for 3 weeks on annual leave the equipment store is now at the QTH of Mike Wilson VK7ZWW, 11 Georgetown Rd. Phone 263588, Mike asks that you make your visits to the store before 9p.m.

The Editor QRM

Dear OM

Your readers may be interested in my ATV contacts with VK3 stations on the 27th January 1977.

From 1900 hours T.S.T. until midnight on that day, tropospheric conditions allowed very fine T.V. pictures to be exchanged between my station and VK3's AKC, BFG, ZVJ, ZU and ATY. Among the highlights of the evening were -

Ron VK3AKC showed me views around his shack and outside, his E.M.E. dish antenna.

Peter VK3BFG, after showing me his equipment played a video tape recording of views around his QTH including a good close up of his 48 element phased array antenna.

After looking at several test cards from Bob VK3ZU, he surprised me by saying that he was only running 600 miliwatts to a small yagi antenna. Most of the other stations were running 90-100 Watt

Both Peter and Kevin VK3ZVJ made video recordings of my signals, test cards and various captions of scenic views etc. and sunset views around Penguin, some were retransmitted to me later in the evening at very good strength and quality.

Signals peaked around 23.30 when "crystal clear" pictures were received from Ian VK3ATY who displayed his equipment, cameras etc.

73 Winston VK7EM

extracts of a letter to A.R. from Ed Hewens VK7HE.

Dear sir

With respect to editotials and letters on CB.

My opinion is that we as amateurs must get together by expressing our views to the W.I.A. who can then correlate them for and against and approach the responsible authority with a proposal agreed to by the majority of members.

I feel that the multi-nationals can afford to lobby for CB more effectively than the W.I.A. against. I therefore suggest we look at :-

- A) Offer the 11 metre band in exchange for more space on 80 or 40. i.e. 3.7 increased to 4 MHz.
- B) Propose a VHF or UHF area for CB with pros. and cons.
- C) If "B" is proposed, get geared up to put a converter from 11 metres to the VHF or UHF frequency on the market.
- D) Names, addresses of known illegal users of the 11 metre band be supplied to the proper authorities for prosecution.

H.E. Hewens VK7HE

to the Editor QRM

Dear Sir

The Editorial in the February issue of QRM appears to be an abuse of editorial privilege, since it presents a highly personal viewpoint in the guise of a summary of general opinion. If such statements had appeared in another part of the magazine they would still be debatable, but the bias would be kept in perspective.

Perhaps as a result of the writers distrust of school teachers, the letter lacks form and style (unless a sustained note of peevish hysteria could be said to contribute either).

However there is really no excuse for the confusion between simple singular and plural. Instead of "some of these people are scoutleaders and schoolteachers...." why not "I have in mind a particular scoutleader and a schoolteacher"? The implication regarding lawbreaking would remain unjustified, but the focus would be more clearly on the exact recipient of the editors displeasure and several other scoutleaders and schoolteachers would escape the general splash of vitriol.

If the object of the editorial was to set up a reaction, why was the writer not present at the subsequent meeting of the W.I.A., did he fear that someone that he slyly maligned would be there to defend himself, did he lack the courage to confront him? Surely the members of the W.I.A. are entitled to a discussion of facts, not a series of unsubstantiated hints.

yours faithfully

Collis T.

The Editor, QRM

Dear Sir

You are to be congratulated on the strength and honesty of the editorial printed in the February issue of QRM an article which I am sure has the wholehearted approval of the majority of members in this State at least.

I have operated radio stations since 1955 in most areas of the world and am fully aware of the need for regulations and the rule of law.

Each year we elect certain members to positions of authority within the Institute, to look after the interests of the membership in general, last year we appear to have made some wrong decisions for we have suggestions from office bearers such as giving up the 11 metre band for a few more KHz on 80 metres, or just giving up this band.

However election time is approaching and we should all think very carefully before we vote in these elections.

An article by the federal president published in the November 1976 edition of A.R. refers to the very definite policies held by the Wireless Institute with regard to intruders into amateur bands. It would be reasonable to expect some news of these policies being implemented in this State, or is this hush hush.

C.F. Beech VK7BC

The Editor, QRM

Dear Sir,

I was extremely pleased to see VK7JV's editorial on CB in the February QRM. At last somebody has had the intestinal fortitude to put something in print.

This CB thing has been caused by many factors, the prime one being the large hobby-ist stores who stand to make a fortune. Secondly the loophole in the law that makes it legal to sell this equipment. (You have to be 18 years or older to buy cigarettes or see a skin flick but anybody with the money can buy a transceiver.) The third one is the lack of action by the W.I.A. and its members. This ugly problem has been growing for years now.

The Institute members should have been shouting loud and long its protest about inaction regarding the growing of pirates on the bands. This problem is not limited to 27 MHz. I think you have all heard the VK3 repeater when our friendly "Fowl" and his mate the "Whistler" are at work. It is not the job of the amateurs to track these problem causes. Imagine how long our above friends would last if they did their thing on the police frequency. This type of piracy should not be tolerated.

For these reasons I urge all amateurs to do what I have done and that is, voice your complaints of inaction to your local government members.

As for the idea of handing over part of an amateur band, I think no reason is good enough to justify this.

As you can gather I am not in favour of 27 MHz band for this and support John's idea about VHF/UHF and FM.

Regarding those people with a genuine need for this style of communication the extra cost of VHF equipment would not really worry them. It is only a lapse in the strict PMG regulations they really seek. (See story on Wheat Harveting E.A. Feb. '77)

On this issue we, as well as the PMG and the government, have got ourselves in a real mess. Tuning up on these fellows while they try to operate may help your feelings a bit but it only creates trouble and ill feeling. Attack the problem the way we should have done years ago, give your local member no rest on the matter. Let him know there are a lot of angry amateurs in the area.

G.E. Rand VK7ZAQ

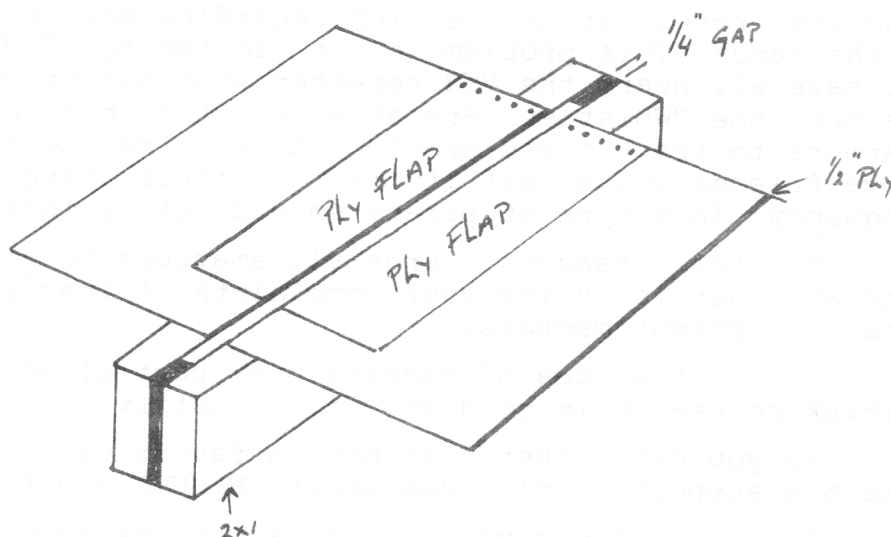
It appears that the editorial published in last month QRM inadvertently referred to certain persons who might have felt offended by it. No offence was intended and to those who believe they may have been offended, we offer our apologies.

We consider this subject closed for the time being and no further correspondence will be entered into at this stage.

HINTS AND KINKS.Circuit Board Jig

Wanting to cut circuit board, I had trouble getting good cuts, using my jig saw, without scratching the circuit board. So I made up the unit shown using scrap timber. The unit I use is about 15" long and 11" wide.

The circuit board size is marked and placed under the ply flaps with the marked line showing in the gap. By applying slight pressure whilst cutting the circuit board is held in place by the flaps and doesn't mark the board. Very fine strips are easily cut this way.



Material; 2 pieces 2 x 1 about 15" long held apart by a 1" wide piece of ply at both ends and along the bottom. These 2 x 1 are nailed together through the ply to form the $\frac{1}{4}$ " gap along the top.

2 pieces 5" wide $\frac{1}{2}$ " ply about 14" long are nailed to the 2 x 1 one each side of the $\frac{1}{4}$ " gap.

2 pieces of $\frac{1}{4}$ " ply about 3" or 4" wide and 11" long are nailed with a few brads to the $\frac{1}{2}$ " ply at one end only, making flaps.

73 VK7HE

WANTEDWANTEDWANTEDWANTED

If you have any old electronic magazines, publications, books or schematics that are no longer required DON'T throw them away, please call me I'll gladly pick them up.

Ed Hewens VK7HE, 43 Faulkner Rd. Ravenswood. Phone 391863

Wanted to buy a small FM 2 metre transceiver IC22 or similar details and price to Ray Kilby VK7RK, 19 Greenway Avn. Phone 441849

Another Way to Void Warranty on an "ICOM".

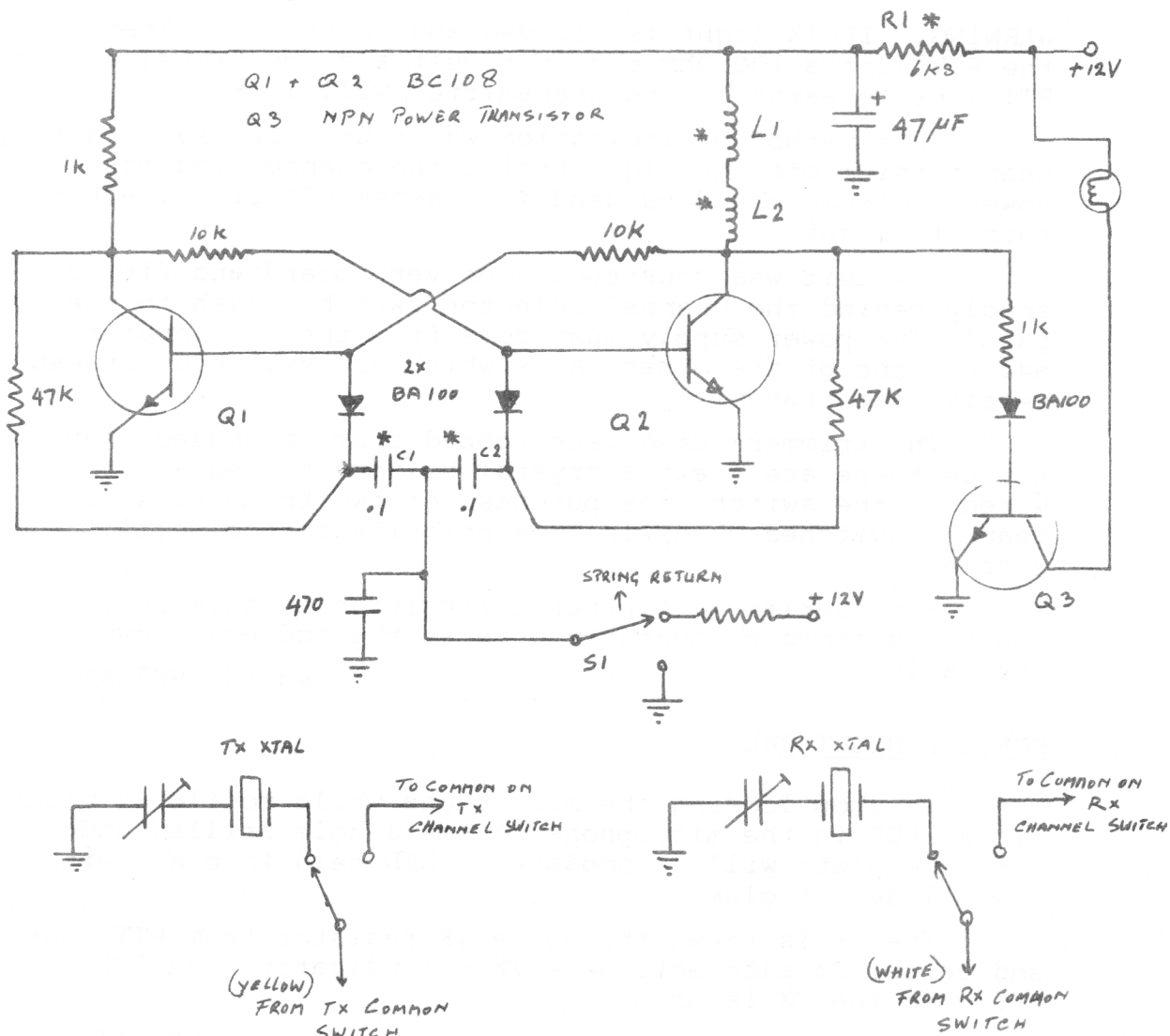
Fit a Priority Channel, by Adrian VK7ZAT.

This is a single channel, easily selected by a button, no matter what position the main channel switch is in. It requires few alterations and can easily be removed when the unit is sold.

It consists of an electronic switch (and indicator), driving 2 reed relays to select the priority channel and disable the channel switch.

The circuit is simple, consisting of a bistable multi-vibrator to convert the momentary on - push button into an on-off switch for the reed relays.

The channel switch commons are wired through reed relays to change them over to a separate crystal holder and trimmer (use the spare socket and trimmer in set).



*Special Parts:

The two 0.1 capacitors (C1 + C2) must be polyester or polycarbonate types.

R1 - The value will depend on the current drawn by the unit, this is mainly determined by the coils used for the reed relays.

L1 + L2 - Reed relays come with a matching coil but this was found to be too large physically so the horizontal oscillator coils out of a "Philips" black and white T.V. were used. These 2 used in series were smaller and used less current than the original coils. R1 was chosen to give minimum current drain which still reliably tripped and held the reeds (remember voltages between 10 - 15V are encountered in a car).

Current consumption of the test unit, reeds off i.e. wired for priority channel, 8 mA, reeds on 18 mA, with the original coils this was 40 mA.

S1, was the unused call selector switch on the ICOM or any spring return switch.

The indicator assembly used was to turn a light on when the priority channel was selected. The TX indicator light was rewired to do this job. The LED in the microphone and the meter being used for R.F. output indication.

WARNING. If TX light is removed and an LED is fitted across the PTT line a 100 Ohm resistor must also be fitted across the PTT line to earth or the transmitter will lock on.

This method of indication was found more satisfactory than turning off the light behind the channel indicator, however either could be used i.e. sense off Q1 collector to turn off light.

The unit was constructed on vero board and fitted snugly behind the channel selector switch, flush to the top panel. The power supply must come from the 12V input rail and not one of the other rails which are switched between receive and transmit.

The trimmers used were robbed from an unused channel but as there are 4 extra crystal holders fitted and not wired to the switch, the purchase of two trimmers would mean 22 switched channels plus priority channel still usable.

Any queries or further information on this project can be obtained by contacting me at the address shown in the callbook.

Adrian VK7ZAT

FOR THE NIGHT OWL.

To stop loosing the microphone while mobile at night fit an LED in the microphone. A small hole drilled under the name plate will accomodate an LED held in place with a small dab of glue.

The B+ is taken through a 1K resistor from PTT line and earth. It also acts as a TX on indicator, the LED goes off when the TX is on.

Adrian VK7ZAT

MODERN SOLID STATE CONVERTERS

VHF CONVERTER KITS

Modern solid-state, high performance converters for 28/52/144 MHz bands. Featured in February E.T.I. p.63.

28 MHz/ETI707B\$11
52 MHz/ETI707B\$11
144 MHz/ETI707A\$14

These converter kits are simple, easy to construct and align.

• 28/52 MHz (ETI 707B)

This is a tried and proven design and was featured in the January issue of ELECTRONICS TODAY INTERNATIONAL. Noise figure on 10 m or 6 m is a little meaningless but this converter produces a noise figure of around 2 dB. Gain is 20 dB or greater, bandwidth is 3 MHz on 6m, 2 MHz on 10m, spurious responses — 50 dB or better. Choice of IF frequencies to suit yourself. Please specify 28 MHz or 52 MHz operation. Crystal not supplied. Fibreglass p.c. board. Value at ... \$11 or just the p.c. board ... \$3.10

• 144 MHz (ETI 707A)

Naturally another simple converter. An original 6UP design, this was also featured in the January 1976 issue of ELECTRONICS TODAY INTERNATIONAL. This converter was designed for low noise (3 dB or better) and low crossmod. performance. Gain is adjustable, with a maximum of about 20 dB. Bandwidth is also adjustable between about 0.5 MHz and more than 1 MHz. Spurious responses are down 50 dB or better. Choice of IF frequencies to suit yourself. No neutralization. Crystal not supplied. Fibreglass p.c. board. What more could you want for ... \$14 or p.c. board only ... \$3.50

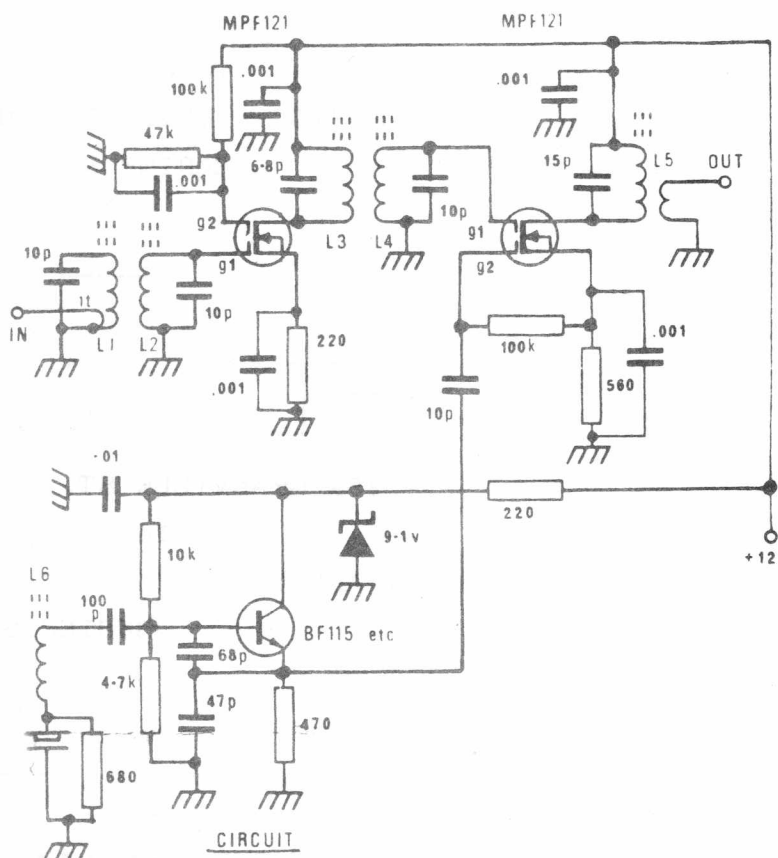
+ • 432 MHz (6UP-004)

The famous design by VK5QZ — now a standard of sorts! Improved p.c. board. This is probably the simplest way to begin on the UHF bands. A simple and straightforward design that produces good performance ... noise figure approx. 4 dB, JFET front end, gain of 10-15 dB, IF of 28 MHz or 52 MHz although some constructors have used 146 MHz successfully for FM net operation. Bandwidth approx. 4 MHz. Fibreglass p.c. board. Crystal not supplied. Complete with straightforward instructions. Head for the frontiers for ... \$14 or p.c. board only ... \$3.35

+ • MARKER (6UP-006)

This provides harmonics to 1296 MHz from a 1 MHz crystal or to 432 MHz from a 100 kHz crystal. Can accept crystals to 15 MHz. Uses 5 transistors. Crystal not supplied. Find the band edge for ... \$7 or p.c. board only ... \$2.55

PACK & POST on-kits is 60c per kit.



send s.a.e. for details on coil components, toroids, baluns & other kits and components

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