

AMATEUR

QRM

RADIO

*Bulletin issued by the North, North West and
Southern Branches of the Wireless Institute
of Australia, Tasmanian Division.*

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OCTOBER 1978

VOL. 8 NO. 7

PRICE 40c

PRE

CONVENTION ISSUE

MEETINGS

Northern Branch - 34 Hourke St.	13/10/78 - 7.45 p.m.
Northwest Branch - Lakins Hall, Ulverstone	- 10/10/78 - 8.00 p.m.
Southern Branch - SES Rooms, Melville St.	4/10/78 - 8.00 p.m.

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QRM COMMENT

With the advent of WARC 1979 the rush is on again to hold on to our frequencies - and quite right too! However, our adversaries are at it again also - the usual comment being that we are not using the frequencies for experimental purposes.

I, like lots of others, use commercial equipment as well as building various bits and pieces - and I know of very few amateurs who don't own one or two bits of "home brew" gear. The amount of "home brew" gear usually relates to time available, capacity to get it going, and finance. Nevertheless, the sum total of "gear" built by amateurs must be considerable!

One area which can be improved is in "the capacity to get it going" and we can do this via clubroom projects. Coming up shortly is an 80 meter transceiver by Winston VK7EM - why not get your group together and make a go of this. People with marginal knowledge will participate more in group projects because there is little chance of being embarrassed in this situation. Give it some thought, and if you have any good ideas pass them along to QRM.

IRATE a., Angry - is the dictionary definition of irate. It was passed along to me this month that some people were irate because one page of last month's issue was occasionally blank. For those who missed out, we have printed it again - for those who were irate, the next packing date is 2nd of October; if you care to give us a little assistance, perhaps we can improve! Seriously, make a note of 2ND OCTOBER at the clubrooms, Launceston - we would like more than the usual 4 or 5 in attendance - Thank you.

TARC 1978 To date, 19 September, only one person from the North/North-west area has registered - Come on people, get those registration forms in - NOW.

Either our typists in love or I must improve my handwriting, but several errors crept in last month, e.g. "Under the stars" at the QTH of 7000.

All the pages in this issue have been typed on the same machine; we hope this will make it easier on the Q.O's

Graham Johnston, VK7GD is handling the auction at the Hamfest - Start saving all those goodies to take along.

* * * * *

Articles are once again needed for QRM - we will redraw circuit diagrams, and rewrite if necessary. Please help us to get a bank of items - thank you.

* * * * *

The Wine and Cheese tasting night was a tremendous success - ample supply of food and an excellent choice of wines. All this, coupled with music for dancing helped to make the night really go. A pleasant break was provided by some female (?) visitors from the "Gold Coast CB Radar Club" in the shape of VK7KK, ZBY, HE, ZRF and Ed Hewen's brother-in-law. The prize went to Reg VK7KK. The next time you see Brian, 7ZBY ask him when the viewing in Bourke St. takes place!

PRE CONVENTION ISSUE

To all the ladies who provided the "goodies" and the effort in the presentation, many thanks from all of us who attended.

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NORTHERN NOTES by Maurice, VK7JU

The monthly meeting for Friday, 8th September was held at the Clubrooms, Bourke St. on a fine clear night for a change! The attendance of 18 members was very poor and Joe, VK7JG expressed concern in this regard. It was noted that quite a number of members were out of town due to a variety of causes.

The Chairman called for a full attendance at the next meeting - Friday, 13th October, when members will be addressed by Col Wright, VK7LZ, the subject "Working the Rare DX Station". Col is expected to review the DX situation around the world in the process, and as Col has been active since 1932, he certainly is an expert on the subject. So, roll up and hear Col unfold his views.

The Treasurer reported a bank balance of \$1263.84 as at 29/8/78.

Sub-Committee Reports: Joe, VK7JG reported that the recent display staged at the Albert Hall 26/27th August in conjunction with Riverside JC's was one of the most successful to date. Thanks to all members who combined to erect antennas and displays and man the exhibit during the period.

Stores Report: Ian, VK7IC reported a good clearance of call books. There are now new stocks of aluminium tubing available at the store, so place your order and collect goods from the QTH of VK7JG by arrangement.

Channel 5A: Members were reminded again to write or contact their local members and state the Radio Amateurs case in regard to this proposal as outlined in articles in the Bulletin, QRM, and AR publications. The next executive meeting will be at the clubrooms, Friday 6th October. At the conclusion of general business, two FB films were shown, namely Telecom 2000 and Ultrasonic Examination of the Brain in Children. Thanks again to Reg, VK7KK for this selection.

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FOR SALE VK7JO - Disposal of surplus Ham Shack equipment - some items new in cartons, others as new.

IC202 2 metre Transceiver	\$175.00	} Together \$180
4el 2 metre Yagi with Gamma Match	10.00	
KR400 Antenna Rotator	120.00	
Soldering Irons:		
Large scope with transformer	15.00	
Adcola 20w iron	5.00	
Weller soldering gun	10.00	
Scope cordless iron	15.00	
Soldervac solder sucker	1.00	
Shorted turns tester	2.00	
Coral high velocity 100 ohm Stereo Phones	8.00	

J. OLIVER, VK7JO, 2 Luxmore Place, Launceston, 7250. Phone 443314 or business 315744.

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"THE LISTENING POST" by Earwig

Have you ever listened to some of the DX that comes through on the medium waves? You, like me, will be surprised at what does come through in the wee small hours of the morning. Take Pyongyang in North Korea; logged at 1430 hours GMT on 635 k/cs with its Japanese language programme. This is the same programme as transmitted on 6540/3015 k/cs and its report; 43323. Next to it in frequency logged was a transmitter of the Chinese People's Broadcasting System on 640 k/cs at 1436 z. It was carrying the First Network and is believed to be located in Beijink (Peking) with a transmitter power of approximately 150 kw.

On approx. 710-715 k/cs, HLKA in Seoul, South Korea was heard at 1440z with a programme in Korean. The WRTH states that this government broadcasting station uses a transmitter power of 500 kw! Of course, it, I assume, would be mainly used for propaganda to the North Koreans as well as to the sizeable Korean minority within Japan.

At 1445z, a station was heard with what seemed to be a Japanese-French language lesson on 770 k/cs. It was very strong; Sinpo 42444 and according to WRTH is Radio JOUB in Akita, Japan. This station carries the NHK 2nd Network which is mainly educational and its transmitted power is also 500 kw!

The best times to listen for MW DX is after the local stations here in Australia have signed off at 1400z when the channels are clear. However, after November 4th, Daylight Saving comes into effect and stations in Queensland and W.A. will be still operational even though stations in the other states have signed off. This will make loggings difficult for the channels will still be filled with locals.

The BBC in London has a very up to date, informative programme for DXers in the World Service called the World Radio Club. It is aired at 1330z and 2315z and I found the best frequency to hear it is 15070. It contains news with what is happening in the world of international broadcasting, as well as providing up to date propagation news, and I mean up to date up to 24 hours prior to the programme being broadcast. The same holds true with DX news. Just 36 hours prior to the broadcast, was recorded Bangui, in the Central African Empire (see Sept. QRM), logged at the BBC's Monitoring Station at Caversham Park on 4999.5 k/cs at 1800z. However, it was said that since then its frequency is varying up to 5020. Incidentally, this weekly programme is aired on Wednesday in the World Service, so if you want to keep up to date with what is happening in DX, this programme is recommended.

Also logged this month were:- JCS Chosi, Japan with commercial ship to shore traffic on c/w: 8650 k/cs 54345 1030z.

VRN Hong Kong operated by Royal Navy with Marker Signal 1030z 8620 k/cs 54434.

Also VPS Hong Kong operated by Cable and Wireless 8580 44333. Note: at 1320 both combined for Weather B/C.

WCC Cape Cod operated by RCA Communications. Heard on all maritime bands. 13033 k/cs heard at 1145z with long TFC List. Has been operational since 1914.

Amateur Station 5H3BP, Dar es Salaam. One of only 4 stations in Tanzania. Heard working VK7 on 14305 at 1300z. Was jumped by every Ham at conclusion of his sked. Was s/7.

Well, that is all for this month. Please send your reports via P.O. Box 275, Launceston, Tas. 7250, by the 10th of the month.

73 DE "Earwig"

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NORTHERN BRANCH EQUIPMENT STORE - RECENT ADDITIONS

Voltage regulators LM340CT -5 \$1.90
 LM340CT -12 1.90
 LM317T 4.40
 (UA 78CB (13.8v 2A) 5.50
 (data available)

Q + A - Westlakes Novice-commercial print \$4.50

Electros - all 25 volt

 0.47, 1, 4.7, 10, 22 uf 6c each
 100 uf 10c each
 470 uf 20c each
 3300 uf 50 volt \$1.10 each

Trimmers 2-22 pf }
 0.8 - 6 pf } All 35c each
 1-12 pf }
 12-75 pf (New stock soon) }

BC318/108 25c
 2N3563 28c
 BNC male and female \$1.55 each
 PL 258 coax joiners 1.00
 22k carbon trimmers 3c each or 10 for 25c
 0.082 uf 250v 3c each or 10 for 25c
 180 pf 2c each or 10 for 15c
 0.15 pf 250v 3c each
 Thermistors 39 @ 150°C 2c each
 120 @ -20°C 2c each

0.001 uf 12kv 30c each
 F29 slugs 11c each

Available soon - coax RG58/CU real quality Aluminium tubing - 10mm OD 4 metre lengths \$1.80. Ideal for VHF beams.

All above items may be obtained from the clubrooms equipment store 19.30 to 20.30 hours Tuesday and Thursday evenings except for the tubing, which is available from the QTH of VK7JG by arrangement.

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"DO YOU REALLY CARE IF YOUR CLUB STAYS IN EXISTENCE?"

If this club had to maintain balance sheets on the efforts of members as a whole, we would be declared bankrupt!! It really is an alarming and sorry state of affairs - the last attendance of 18 members indicates this. Some only come along occasionally for the specific purpose of whingeing - some shy clear of being involved in any work areas - others don't even bother to come along at all. What would you do, if at the end of our official year if we said the club was closing through lack of interest? Well, that seems to be the way it's heading. A club is not a club without member participation.

(Cont. P 6)

PRE
CONVENTION
ISSUE

If we, as an executive for the club are doing things incorrectly - tell us! We need a greater turnout at the meetings to keep the motivation moving. Please come along - bring the wife and kids - At the next meeting on 13th October we want to see the room full, and please, we would like at least a dozen (12) on packing nights to get this magazine out to mail. We need painters to get the store room painted - volunteers, please. In short - if you, as a member of the radio fraternity, cannot get off your bottom once a month to support the group, then you don't deserve to be an amateur. P.S. Whilst you are in a nasty mood at reading what you don't consider should apply to you, don't forget to post your complaint about Channel 5A - and your application for the Southern Hamfest!

VK7CCC.

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WANTED TO BORROW - Practical Wireless - April, May, June. Bob, VK7ZRF.

FOR SALE - Audio line equipment, suitable for wrecking, plugs, meters, transformers etc. Programme audio amps - 14 inch picture monitors. Contact Frank VK7ZFR or Bob, VK7ZRF.

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Remember that there will be an Auction at the Hamfest down South - Graham, VK7GD, the equipment store officer, is handling it, and hopes all North and Northwest members will take gear along to sell.

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VHF NOTES by Joe, VK7JG

Once again we have very little to report on 6 metre activity in VK7. My 6 metre rig runs on 52.050 whenever we are in the workshop and to date haven't heard a thing in 5 months. Just a few notes of interest from A.R.A. New Caledonia - FK8AB will be active this year and shouldn't be too hard to work as he is closer than YJ8KM and Ken was worked on many occasions last year.

Mellish Reef - JA1KSO from 29th September to 9th October. WA6JRA has heard TV CHØ from Wagga during May, the calling area for SSB is 50.100-50.125, so keep an ear to the bottom end of the band. With the state of the art being superior to what it was in 1968, these "rare" contacts we hope will be quite common happenings during the next DX season.

Two metres has been much the same, although on Friday 22nd afternoon VK3RGL was usable for several hours. Kevin, VK7ZAH also worked a couple of VK3s on Saturday morning - That's all till next month.

73es Joe

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DX NOTES by Col, VK7LZ

As expected, conditions have improved considerably since last month's notes were written, although it's generally recognised that the lower frequency bands deteriorate with the rise in sun-spot activity.

7 m/hz is still worth a check, tuning over the band occasionally between 0600z and 0700z produced several European countries on C.S., also DM2DFO, G13OQR, ON6WL, GW3AX, GW4BVN, DA1UM plus W's and JA's on SSB with signals running between S6 and S9.

14 m/hz has also produced some excellent DX, the most notable feature being the return of South American stations. PY, ZP, CX, HC, HK, YV and 8R stations are now being logged again but most important was the receiving of the VP8's - VP8HZ an old friend of several VK7's was QSO'ed at 1000z for 45 minutes with S8 signals on 20th September and VP8QG has also been heard. Africans have been copied occasionally but next month should give us better signals in this area - Asian, European and Central Americans are also there for the taking.

21 m/hz - This band has continued on the upward trend; African stations are now heard almost daily from 0500z, sometimes barely audible, but at other times with excellent signals. Chris Walker A2CDW appeared on the ANZA net on Sunday 17th September with 44 signals and has promised to be on this net on Sundays in the future (tune around 21,200 m/hz at 0500z). Others QSO'ed were 3B8DU, 3B9ZZ, 3D6BP, 9J2GJ, also ZE and ZS's. Another unusual station heard was JW7FD on Bear Island. Europeans are appearing almost daily from 0600z, whilst JA and W signals are rarely non-existent. HL, UA, UL and VS6 has been worked from here during our afternoons and evenings.

Last month we mentioned that 28 m/hz, although open, had produced nothing exciting; since then stations in Africa and Europe have been QSO'ed between 0430z and 0700z. Asia and North Americans have appeared from 0001z to 0700z, the pick of the lot being STORK in the Autonomous State of the Sudan - More time will need to be spent on this band in the future.

October is the month most DX'ers have been waiting for with the following contests to be worked:

VK/ZL Oceania - Phone October 7th and 8th
VK/ZL Oceania - CW October 14th and 15th
RSGB 7 m/hz Contest - Phone October 21st and 22nd
CQ WW DX Contest - Phone October 28th and 29th

Several DXpeditions have been planned for the CQ WW Contest and activity is expected from Chatham island, San Felix, Guernsey Galapagos and possibly Revilla Gigedo. It has also been mentioned that the U.S.S.R. not to be outdone, is planning an expedition to Franz Joseph Land and this could eventuate in the October-November period.

VP8HZ advised that he had QSO'ed VP8QK on the South Orkneys a few days before our QSO and that VP8PL at the same QTH is too busy to get on the air at present.

The Chatham Island gang are going all out to help the novices after the CQ WW contest is over. They will look for them approximately 10 k/hz inside their band edges on all novice bands 28 m/hz to 3.5 m/hz, the call sign will be either ZL3H1/C or ZL3CQ, QSL to ZL1AD1. Listen from 27th October to 7th November.

(Cont. P 8)

QSL information:

EP2BZ P.C. Box 917, Teheran
 EP2LI via WA4PYF
 EP2NC via I2YDX
 EP2TW via GI3HXV
 JW7FD via LA5NM
 VP2KT via WB2TSL
 8RIX via VE3IXE

EP2IA via W4YE
 EP2MS via W8CXS
 EP2SI via JH1KHK
 FPSAM via K1PV
 STORR via DL7FT
 3B9ZZ via W2GHK

WB6MID/8R Box 893, Georgetown, Guyana

FH8CJ P.C. Box 50, DZOUADZ 97600 Mayotte, Indian Ocean

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EXCERPTS FROM "THE BOYS WIRELESS BOOK", 1924 through Winston, VK7EM

"Has your best crystal suddenly ceased to give satisfactory results? If so, you have probably allowed the surface to become covered with a thin coating of dust or grease. The thinnest covering of dust is sufficient to prevent the received currents from flowing through a crystal. It is a good plan to keep a camel hair brush by you and to dust the crystal periodically".

On using an aerial tuning unit before the receiver, "The object of a tuner is to prepare the receiving aerial to vibrate at the same frequency as that of the incoming waves. Every aerial tends to vibrate at a certain frequency, and when that frequency is the same as the frequency of the incoming waves, the latter waste none of their energy in setting up vibrations in it.

On the search for the best loudspeaker; "There is an increasing demand for 'loud speakers' for use with wireless instruments. Although many of these give quite good results, it still remains a fact that the ideal loud speaker has not yet been invented. This suggests an easy and useful avenue of research for the amateur. The quality of wood used, and the actual shape of the trumpet part, seem to be two of the most important factors".

"Pictures by Wireless".

"Television", or the transfer of actual pictures or scenes to a distant point, has long been the dream of the telegraphic engineer, and a certain degree of success has already been attained over conducting wires. The wireless expert is not far behind in this matter, and, in addition to loading the ether with song and music, the time may not be far distant when we shall have 'pictures' similarly carried from place to place by wireless waves."

"2LO opens up at 5 p.m. each evening and at 5.30 the "Childrens Hour" commences to be followed by an excellent programme for grown-ups. This includes selections from the wireless orchestra, and if you have a sufficiently sensitive receiver the music will be so loud that you can fill a large room with it."

The programme at each station varies considerably from any of the programmes at the other stations. Moreover, it is not necessary to have a separate receiver to pick up the different programmes. The same receiving instrument will enable you to listen in to any of the broadcasting stations - providing it is sensitive enough.

(Cont. P 9)

"If the signals you are receiving are very loud, you can employ an instrument known as a loudspeaker for the purpose of rendering them audible to fifty or a hundred people. Even if signals are not loud enough to permit this, by adding extra head telephones you can entertain at least three or four friends."

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These, I thought, were "priceless" statements and may be interesting to other readers. Some of the diagrams in this book are also "classics".

73 Winston, VK7EM

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SOUTHERN BRANCH NOTES

There were 40 people present at the last meeting held on September 6th. The meeting was re-organised to allow Tom Barnes from Icon Industries to give a lecture on making Scotchcal labels to prove that people listened, Joe 7BJ, and others, made up call sign labels. Many thanks, Tom for a good lecture.

The formal side of the meeting got under way at 2045. A report from the repeater committee advised that no damage had occurred to Repeater 2 aerals from ice this year.

The 6 metre beacon is almost finished - new frequency to be 52.375 MHZ - and a report on its development is being compiled by Alan Ruthven.

A new list of broadcast officers was drawn up and the question of a 40 metre AM broadcast in the south was raised. What do YOU think ?????

For various reasons a W.I.A. stand was not set up at the N.C.R.A. Convention at Wrest Point - a private amateur display that was there was very popular and got good T.V. coverage.

Greg 7FT gave a report on T.A.R.C. 78 - have you sent your registration form in yet? There was one in last month's QRM and another in this months.

Mike 7MC tendered his resignation from his Southern Branch executive position - thanks for your past efforts, Mike.

For those of you with large towers, Peter 7ZPA read an item from "The Age" which stated that the all clear has been granted in Victoria for towers of unlimited height - 7AZ take note!

At the end of the meeting an auction was held of items from Winston 7WH's shack - just about all present going home with a GOOD? buy.

Next meeting 4th October - see you there.

de

Andrew VK7ZAJ

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Are you, like me, always getting QRM when you're trying to do something? Don't worry - there are lots of activities to keep the wife and kids entertained at the Convention, especially while the auction is on. There are visits to Salamanca Market, Tudor Village, Shot Tower, the Botanical Gardens and a Crafts shop; make-up and manicure demonstrations (psst - bring your own nailpolish), china and bark painting, and cake decorating, as well as some expert advice from a physiotherapist.

And, for the kids, there are children's films, and a fancy dress ball (with prizes), and after they collapse with exhaustion they can retire to the creche.

If you can't get away with all you want at the auction with those distractions, you had better register elsewhere!

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EQUIPMENT AUCTION AT CONVENTION

From 4.00 p.m. on the Saturday there will be an equipment auction at the Convention.

Items for auction should be usable or working or good surplus items.

Graham Johnson 7GD is organising the auction, telephone at work - 306460, home - 726412 - get in touch if you have anything for it.

He will collect items before the auction if possible and he will also be travelling through to Devonport for the Divisional Council meeting on October 21st; listen out for him on the repeater.

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"POLEY" CLARK - VK7CK - SEPTEMBER 15, 1978

Radio Amateurs and also many other folk around Tasmania and across the world will be saddened to hear of the sudden passing of one of Amateur radio's gentlemen of the air. Namely, Leopold F. Clark, VK7CK or "Poley" as he was known by all the radio fraternity.

To our knowledge, Poley was licensed upwards of 45 years and first came on the air from his QTH of Upper Natone, a small farming community on the N.W. coast of Tasmania.

It was at this location that Poley constructed and operated his own Hydro-electric power station by using water from a creek on his property to drive a small water turbine coupled to an A.S.E.A. alternator. This power supply was in use for many years to drive his various TPTG "Mgs" and other set-ups which powered his long wires and End Fed Zepps. This power supply was in use long before reticulated power was available from the State's Grid system.

It is believed Poley worked into Northern Europe on 80 MX in the early "good old days of radio". In recent years Poley could be heard almost daily working the "G's" and many others at his home at Legana on the West bank of the Tamar River.

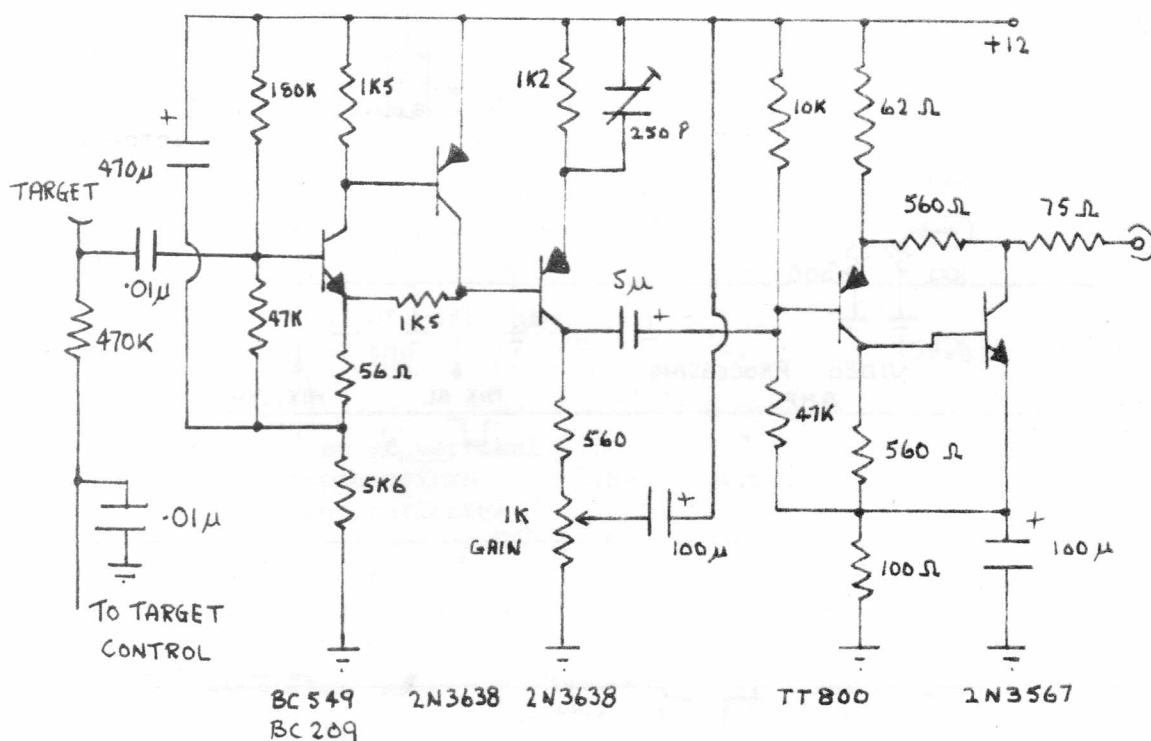
(Cont. P 11)

To Poley's wife, Etta and to all members of his family, we extend our deepest sympathy in their loss.

ATV: SIMPLE AS ABC PART III

This month we have a few more circuits. We will start with what is commonly referred to as the head amp. This amplifier has to provide enough gain to bring the low output of the vidicon tube (a few millivolts) up to a satisfactory working level (about .7 volt) where further processing can be carried out. The other important requisites are low noise and some form of frequency compensation to counteract the output capacity the tube target and connection lead. To reduce this capacity it is recommended that the target connection be a small brass spring section bearing against the target ring and connected to the amplifier via a very short lead. Also, to keep the input capacity of the amplifier low, it is important to use the specified transistor in the first stage as this is a plastic case type with low interelectrode capacity.

HEAD AMP



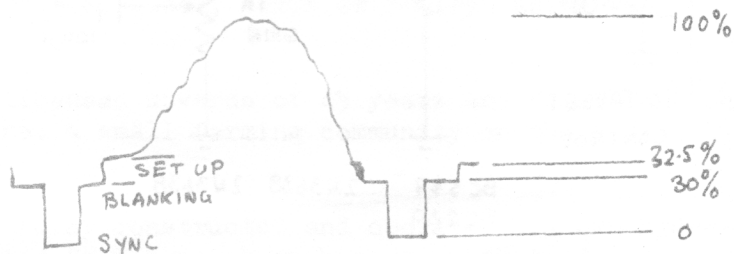
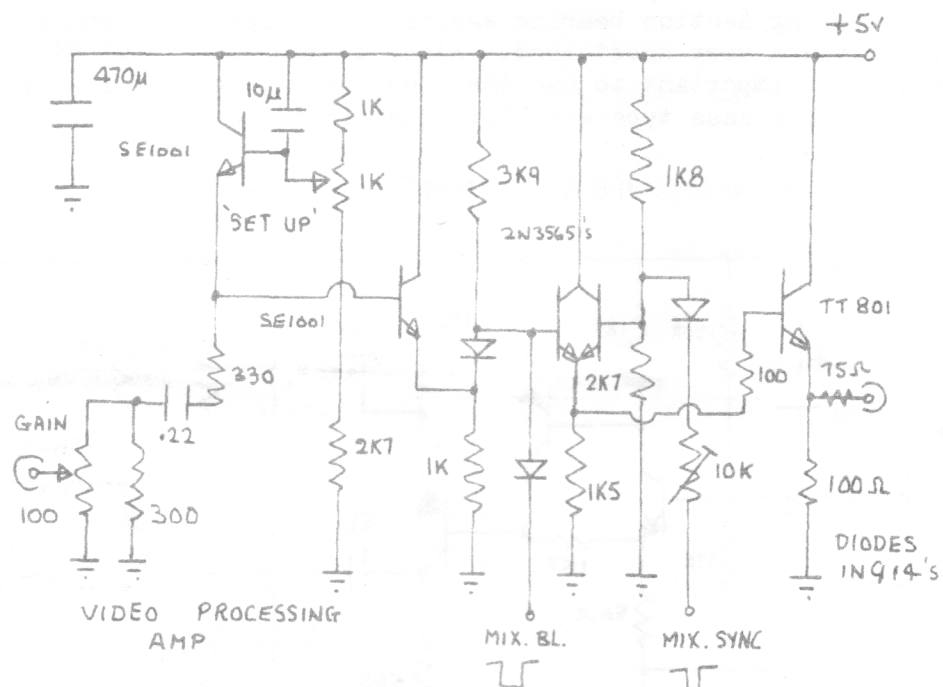
The circuit used in this case was written up by Frank, VK7ZFR in August '74 QRM. This amplifier was originally built on rectangular circuit board with a semi-circular cutout for the vidicon and was intended to be mounted on the front of the yoke assembly, but this prevented adequate movement for focussing so the board was finally mounted on the baseplate beneath the yoke. I believe the best method of construction would be on matrix board with short direct wiring connections. This would also reduce stray capacity somewhat. Further excellent head amps appeared in "AR" recently.

(Cont. P 12)

A very important consideration, particularly with this amplifier, is separate earthing and supply lines back to the power socket. The shield portions of the deflection yoke assembly must also be earthed similarly. If interference and noise are a problem with the amplifier, one might have to resort to a metal case for same.

The other circuit for this month is the processing amplifier. This unit accepts the amplified signal from the target and inserts at given D.C. levels mixed blanking and mixed sync. pulses. This design is based on a type described some time ago in "C.Q. TV". The sync. and blanking signals are derived from T.T.L. levels via transistor buffers. This circuit is built on matrix board also. The main advantage of using separate processing is to enable test signals and other video sources to be switched in or out with minimal interruptions to line as the sync. and blanking is always present.

The controls are set up to give the ratios approximated below.



To be continued.

73's Bob, VK7ZRF

MOUNTING OF YAGI AERIALS

While glancing through some old copies of "Break IN" magazine of N.Z.A.R.T. looking as we all know for something else, Max, VK7MX, found this interesting article.

We acknowledge this article by Ross ZL2TFA, in Dec 1975 issue.

So you've made your super x-over-x (or what have you) VHF or UHF Yagi aerial and with great expectations you shin up your favorite mast or tower, spanner in back pocket, safety belt around your middle/ All is set for the XYL to pull the rope and take the new aerial aloft.

STOP !! Are you aware that incorrect mounting may negate your hours of hardlabour manufacturing the beastie ?

If your aerial is to be horizontally mounted on a vertical pipe or mast of slim dimension, then generally no loss of performance will occur.

However, if your aerial is to be mounted vertically, some loss of performance can be expected if the aerial is mounted with the supporting mast between the aerial elements. The following data attributed to Belling and Lee (Australia) Pty. Ltd. shows the effect of various mounting positions.

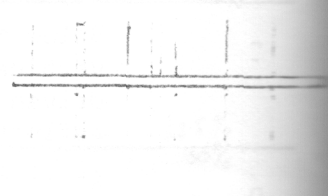
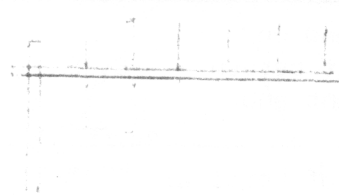
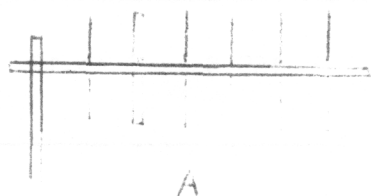
3 - Element Yagi tuned to 159.5 MHz, vertically polarised, mounted on a 2" o.d. support mast.

FIG.	POSITION	GAIN (db)	BANDWIDTH (MHz)	RESONANT FREQUENCY (MHz)	V.S.W.R. AT DESIGN FREQ.
A	At masthead of vertical mast behind the reflector	7	4.5	159.5	1.05
B	At masthead of vertical mast between driven element and reflector	6.5	4.5	160.5	1.15
C	Below masthead on vertical mast between driven element and reflector	6.25	2.5	160.8	1.19
D	At masthead of vertical mast between driven element and director	5.5	4.5	160.6	1.48
E	Below masthead on vertical mast between driven element and director	4	--	160.8	1.73



6 - Element Yagi Tuned to 161.8 MHz, vertically polarised, mounted on a 2" o.d. support mast

FIG.	POSITION	GAIN (db)	BANDWIDTH (MHz)	RESONANT FREQ. (MHz)	V.S.W.R. AT DESIGN FREQ.
A	At masthead of vertical mast behind the reflector	10	3.5	161.8	1.13
B	At masthead of vertical mast between 1st and 2nd directors	9	2.75	163.6	1.38
C	Below masthead on vertical mast between 1st and 2nd directors	6	1.9	165.1	2.2



SPECIAL "AX7" PREFIX

From 1400 GMT November 3rd, until 1400 GMT November 5th, all amateurs within VK7 have been granted the privilege of using the AX7 prefix.

The occasion is to commemorate the 175th Anniversary of the landing at Risdon Cove in 1803 by Lt. John Bowen R.N. to establish the first settlement.

AX7WI will be operating from the Convention site during this period and a special Q.S.L. card to commemorate the Anniversary will be printed through the Division, and will be made available to all amateurs for their own use.

Orders for the Q.S.L. card can be made through your Branch or Division Secretary after the Convention when you know how many you will need.

This is a special occasion for all VK7 amateurs so make good use of the prefix - H.F. operators will make many a DX station grateful for the new prefix - and you will surely work some new countries as well.

* * * * *

VK7 NEWS BROADCAST ROSTER: OCTOBER TO MARCH

Co-Ordinators

North-West	VK7TT	Telephone Work	302221	Home	252073
North	VK7ZBY	" "	918288	"	441466
South	VK7GD	" "	306460	"	726412

RE - Broadcast Frequencies

North-West	Repeater 3
North	Repeater 8, 7130 KHz a.m.
South	Repeater 2, 52.525 MHz, 435MHz FM, 144 MHz, 28.56 MHz a.m.

RE - Broadcast Stations

North-West	VK7s AX, TT, MX, ZIE
North	VK7s ZBY, PF, HE, JV, ZWX
South	VK7s PS, ZJG, ZAJ, BJ, HK, GD, NAD, NDT, NJC

Home Phone Numbers of All Originating Stations

North-West	T. Tongs VK7TT 252073, K. Hancock VK7KH 312164, M. Ives VK7MX 278946, S. Medford VK7SF 313943
North	B. Yeoman VK7ZBY 441466, J. Gelston VK7JG 443882, G. Reardon VK7ZGG 446636, R. Harwood VK7RH 442324, R. Emmett VK7KK 312090, H. Hewens VK7HE 391863
South	J. Brown VK7BJ 281328, T. Allen VK7AL 439192, A. Boon VK7AW 285807, P. Hall VK7PH 546146

ROSTER

Date	Originating Station and Branch		Rep 8 to 80 Meters Northern Branch Only	80 Meters to Rep 8
Oct 1	VK7TT	NW		VK7ZBY
8	VK7KK	N	VK7KK	
15	VK7AW	S		"
22	VK7KH	NW		"
29	VK7ZBY	N	VK7NJD	
Nov 5	VK7PH	S		"
12	VK7MX	NW		"
19	VK7ZGG	N	VK7GW	
26	VK7AL	S		"
Dec 3	VK7SF	NW		"
10	VK7RH	N		"
17	VK7BJ	S		"
24	VK7TT	NW		"
31	VK7JG	N	VK7NJD	
Jan 7	VK7AW	S		"
14	VK7KH	NW		"
21	VK7HE	N		"
28	VK7PH	S		"
Feb 4	VK7MX	NW		"
11	VK7KK	N	VK7KK	
18	VK7BJ	S		"
25	VK7SF	NW		"
Mar 4	VK7ZBY	N	VK7NJD	
11	VK7AL	S		"
18	VK7TT	NW		"
25	VK7ZGG	N	VK7GW	

VK7 NEWS BROADCAST ROSTER NOTES

Following comments and inquiries from broadcast officers the following information is supplied as a guide to the presentation of the official Sunday morning news broadcast from VK7WI/P.

1. The Sunday morning news broadcast is authorized by the Divisional Council to allow the exchange of news related to Amateur Radio, and as such no personal advertising is allowed. Equipment handled by branch stores is not classed as advertising, and therefore can be mentioned. The price, however, cannot.

2. For the benefit of all originating stations the broadcast is to start at 0930 hours local each Sunday morning, but, contrary to popular belief, is allowed to exceed thirty minutes if required.

3. All stations origination on 80 meters, or 80 meter relay stations are requested to come up on the broadcast frequencies at 0915 hours local to allow relay stations to align their equipment and check for system operation. The official frequency for VK7WI/P on 80 meters is 3570 KHz $\pm$ QRM.

(Cont. P 17)

4. If, in the opinion of the broadcast officer any letters or personal comments are of a controversial nature, they should be passed on to the Divisional Council before being included in any broadcast.

5. Originating and relay stations of VK7WI/P are to keep a log sheet of the Sunday morning news broadcast. These log sheets, which are available from the Divisional Council, should be forwarded to the Divisional Secretary at the close of each broadcast roster period.

* * * * *

Are you like me - got a power supply that eats diodes like chips? Got six projects to support and can't afford the components? Well, here's your answer - COME TO THE CONVENTION AND WIN ALL THE PRIZES. But please keep it quiet or everyone will find out.

* * * * *

NORTH WEST BRANCH NOTES by Jim, VK7NOW

The usual monthly meeting was held at Lakin's Hall, Ulverstone on September 12th, and despite bad weather conditions, there was a good attendance - around 32.

Because of the absence of the Chairman, Brian VK7ZBL, his place was ably filled by Max VK7MX who is no stranger to this post. Secretary Kirby, VK7KC was also absent and his place was capably filled by Joan, XYL of Peter, VK7ZFP.

Apologies were received from VK7ZBL, VK7KC, Graham VK7ZAQ, Ted Wicks and Bill Shelton.

Minutes of the last meeting were read and confirmed.

Visitors: Aspiring Novice Geoff Walpole and Peter VK7PF were welcomed.

Correspondence Inwards: A letter from AMP Insurance Co. re Personal Accident Insurance regarding possible injuries sustained by members during work on towers, etc. The cost was quoted at \$25 per annum to be financed by way of a small levy included in Annual Sub. A letter was read from the Southern Branch regarding T.A.R.C. 1978, advising that the venue approved was Tasmanian College of Advanced Education at Mt. Nelson. The Southern Branch is putting on a top rate show, we understand. A letter from P & T Dept. was read advising that Novice Exams will be held in Launceston late November this year and also on the North West Coast - the place still to be announced.

Correspondence Outwards: No outward correspondence.

Treasurer's Report: Ivan VK7ZOA/NCA reported on Branch funds. Report was carried.

Activities: Stephen reported on the "RD" contest. It went off very well. VK7WI Portable made approx. 250 contacts and reports of many high scores were noted. All contestants were thanked for their efforts. Members are advised that at the conclusion of next month's meeting, a film on N.A.S.A. Weather Satellites will be screened by Jim VK7NOW.

(Cont. P18)

J.O.T.A. Terry VK7TT informed the meeting that 24 scouts, broken up into groups will occupy the Sheffield Drill Hall. Terry requested the help of members to attend to help keep the station on the air for as long as possible.

General Business:

Applications for New Membership: Graham Pickford, Ulverstone, VK7ZGP
Dick Van Beek, Ulverstone.

Both applications unanimously accepted.

At the conclusion of business a most interesting talk on "Oscar" was given by Peter, VK7PF. Peter not only related details of the initial conception of "Oscar" 1 through 8 and illustrated the method of 'tracking', but finished the discussion by casually saying "Oscar" 8 will be in range now - We will let you listen to traffic. Then, switching on his FRE-7 which was hanging on the end of a very temporary antenna, we heard VK2RX calling "CQ". This was answered by VK4ZIL, 3 or 4 "Overs" were copied at quite good signal strength. Peter was thanked by a most appreciative audience.

Joan, XYL of Peter, VK7ZFP advised members that persons requiring parts at very reasonable prices, plus quick service, may obtain them from:-

International Electronics Unlimited,
Village Square,
Box 449, P.O.,
Carmel Valley, CA, 93924, U.S.A.

Personal cheques will be accepted.

New Products: Kenwood, next month, will have their answer to Yaesu's FT-7. The TS-120S will have digital readout. If it is better than the FT-7 it will be a good one.

Topical Notes: Modern Yagi Antennae must be made of poor quality materials. It is understood that an Amateur, during transmission, not only burnt his Balun out, but burnt the Traps as well!

To conclude, how is this for a scoop, by yours truly. Did you have the pleasure of watching the superb series of the TV play "Roots" which has just concluded on commercial TV? Local amateur, Pat, VK7BW (ex-WA2RVK) has a father who is still in the U.S. Coast Guard as a radio operator (he is a 55 wpm CW man). The author of the story, Roots, was also in the U.S. Coast Guard and was a friend of Pat's father. Small World !!!

DX: Novices should swing their beams/quads lone path to Europe from around 0400Z. The band is usually wide open. The writer now has 86 countries mostly on 15m towards DXCC. The 10-X DX award is issued by the "Long Island Amateur Radio Society" and is a good one to try for. We are proudly displaying their first Award issued to any VK Amateur - on our shack wall.

This wraps our notes up for this month. Good DX. VY 73,

Jim VK7NCW

* * * * *

FOR SALE: Drake "SSR1" Communications Rx, Excellent condition.
10 months old. Will accept \$250.00 ono.
Contact Neil Findley, Phone Bus. Hrs. (004) 25 2444.

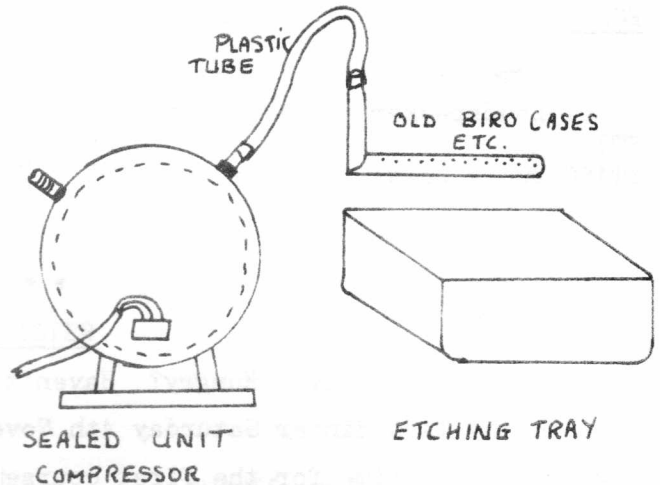
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HELPFUL HINTS

A fast, efficient method of circuit board etching is described here. This simple apparatus has been used by the author for several months with complete success.

The first consideration is to go to the tip and find an old sealed unit compressor. With a bit of luck you will find one that operates first time, as I did. It may need addition of a small amount of mineral oil in the intake pipe, though. Identify the output line and hook this to the bubble pipe via a length of thin wall tubing.

The bubble pipe was made from some old biro cases joined with conduit cement, the end blocked and the horizontal section drilled with about ten very small holes (No. 60). In use the pipe can be held in place with a plastic clip (peg) and positioned so the bubbles rise under the board.



The compressor is ideal as it pumps at about 2 lb/sq in. pressure, which gives a good etch in 3 to 5 minutes.

Drilling Aluminium Something very worthwhile when drilling or working aluminium is to place a few drops of alcohol, methylated spirits, on the surface. The drill will cut a much cleaner hole with little or no burr even on $\frac{1}{8}$ " plate.

Can't get to the Convention? ARE YOU SURE?! There is a special rate and a free dinner on Sunday 5th. Don't throw that registration form away or you'll be wasting \$10.00. That's the value of a dinner like this. I'd get the registration form filled in and posted back right now.

CHRISTMAS BARBECUE

This is to be held at the Kings Meadows High School on December 9th and is scheduled for a 3 p.m. start. The event will be a family barbecue and children's Christmas Party combined - with Santa Clause - and organized games and sports. More details in future issues of QRM.

(Next meeting of the Ladies Committee at the home of Judy Henricks on December 2nd, starting at 2.30 p.m.)

REGISTRATION FORM GONE ??

FOR SALE

KENWOOD TS 820 10-160M SSB/CW

Perfect Condition - \$835.00

PHONE: Doug VK7ZA 002-441165

* * * * *

FOR SALE - YAESU EQUIPMENT

FV101B-VFO

\$110

FT101 Loudspeaker

\$30

FT7

\$485

YT150 Dummy Load/Wattmeter

\$95

All 101E Accessories - All reasonable
offers considered.VK7NAB - 3 Edmund, Road, Trevallyn,
31 7914.

* * * * *

Feeling thirsty? Hungry? Haven't eaten for a week? Well, you'd better come to the TARC dinner Saturday 4th November. Get that registration form back now! Starting time for the first course - 6.30 p.m.

* * * * *

ACCOMMODATION FOR T.A.R.C.

There are limited number of caravans available for overnight usage over November 3rd - 5th, from several caravan parks in and around Hobart.

The closest to the Convention site is the:

SANDY BAY CARAVAN PARK

PHONE: 251264

RATE: \$12.00/Two Persons = \$1.50 each additional person.

The next one is about 10-20 minutes away, depending on traffic:

ELWICK CARAVAN PARK

PHONE: 727115

RATE: \$10.00/Two Persons = 50c each additional person.

Others may be found in the yellow pages of the phone book.

The Caravan Parks contacted all suggested that the reservations be made early because of the long weekend in the North.

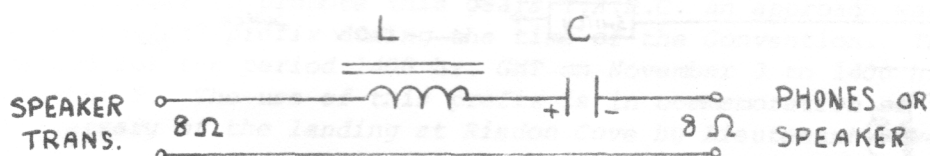
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PRE CONVENTION ISSUE

REGISTRATION FORM GONE ??

Remember "What's 'is name"? - Saw him at the last Hamfest - Hope He's there this year - Better give him a ring. Make sure he's going. Better make sure he gets his registration done in time - CLOSING DATE 21ST OCTOBER.

SIMPLE C.W. FILTER



The above filter can be readily switched into the speaker line from that other receiver in the shack, that does not have a filter in it, to help sort out those C.W. signals.

It is approximately 28 mh and is wound on a 50mm piece of ferrite aerial rod 8mm diameter, with 900 turns of 24 B & S enamelled wire. C is a 2.5 MFD 10VW electrolytic. The response peak can be varied by using different values of C.

As it is, the circuit peaks at 600 HZ with the 3 db points being at approximately 500 and 700 HZ respectively for a 200 HZ bandwidth.

The response can be further tailored by doubling the value of L and using C of 1 MFD. The frequency is again approximately 600 HZ and the 3 db points now are at 550 - 650 HZ for a 100 HZ bandwidth. The audio output will have dropped significantly in this case and it may be necessary to use an amplifier to bring the audio back up to a comfortable level.

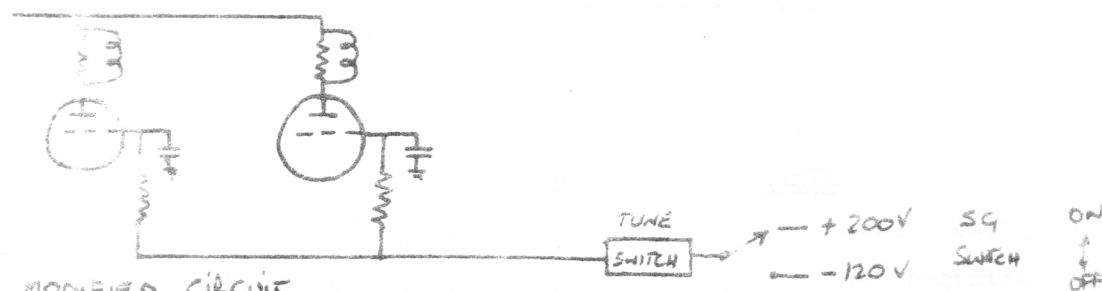
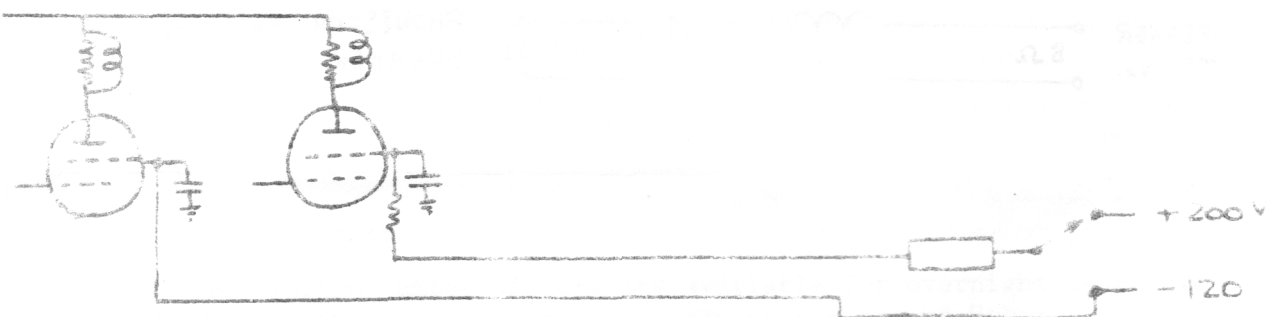
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Mike VK7MC

MODIFYING KENWOOD EQUIPMENT FOR NOVICE USE - Joe VK7JG

Kenwood Technical Bulletin 7/7801-RE TS520-5208-8205 Reduction in power for NOVICE use.

- (1) Remove wire from 800v terminal on power transformer and connect to 400v terminal.
- (2) Disconnect the thin wire connecting the screens of the final S1002 valves.
- (3) Connect a piece of wire between the "unused" valve and the SG switch on the back panel (this now biases this particular valve off).

ORIGINAL CIRCUITMODIFIED CIRCUIT

The above is the Kenwood Technical Bulletin, however I have found on two sets that I have checked that the mains transformer is not tapped at 400v. The transformer is marked 0-400-800 and the output is voltage doubled. If you measure the AC voltage across these windings the 0-400 is about 375VAC and the 0-800 is 400 AC.

To obtain a lower HT voltage, e.g. 400v I modified the power supply to a 2 wave rectifier. To do this lift diode D1 in the rectifier unit above ground. The board has a link, cut this with a pair of side cutters and place a short circuit across C21, this places the "0" end of the transformer winding at earth potential. You now have a 400v DC HT supply.

The P + T Department don't approve of two valves in a novice rig so if you remove one you have to make up for the missing grid capacitance and filament. To do this first connect a 2-20 pf variable capacitor across the "missing valve" socket to ground and replace the filament with a 5.6 ohm 10 watt resistor. Fit this into an octal plug pins 2 and 7, the exhaust fan helps keep it cool.

The transmitter will now operate at novice ratings, however the grid tune will not coincide with maximum receive sensitivity until the variable capacitor is adjusted. Switch on calibration and adjust preselect for max "S" meter reading; now depress PTT on tune position and adjust variable capacitor for maximum drive. Once this capacitor is adjusted it will not have to be touched again so it remains the same on all bands. Now switch to SSB position and adjust the PA standing current to 30mA.

If you wish you can also adjust the PA standing current to 30mA when in SSB position.

STATE NEWSREG EMMETT VK7KKChannel 5A

It seems individual members have been active in contacting politicians and informing them of our fears concerning the expansion of the number of 5A stations.

A suggestion has been made that we should hold some organised activity in the Wynyard area in order to obtain some evidence of interference problems. Any takers?

New Members

Welcome to:

Ken Sutherland,	VK7JT	Deloraine
Graeme Pickford,	VK7ZGP	Ulverstone
Dick van Beek,	grade B	Ulverstone

AX Prefix Use

In order to promote this years T.A.R.C. an approach was made to allow use of the AX7 prefix during the time of the Convention. This has been granted for the period 1400 hr. GMT on November 3 to 1400 hr. GMT on November 5. The use of this prefix is in commemoration of the 175th Anniversary of the landing at Risdon Cove by Lieutenant Bowen in 1803.

A special QSL card will be produced and members requiring these should notify the Division (P.O. Box 1010, Launceston) by the end of November.

Council Notes

The August meeting discussed the following matters:

- (1) NCRA Convention exhibit
- (2) Insurance cover
- (3) TVT 6 film segment re radio for handicapped.
- (4) Search and Rescue Symposium Report.

It was decided to purchase a video tape of the A.R.R.L. films for publicity purposes. The Divisions publicity exhibit at the N.C.R.A. Convention had to be cancelled however it was noted that Brian VK7RR attended on our behalf. A publicity article was forwarded to the N.C.R.A. and published by them.

Division financial balance \$418.

Novice Examination

Note that the examination in Hobart will be 21 November. Those requesting to sit in Launceston and on the North West Coast will be advised of the time, date and place after the closing date of applications.

Insurance

— As mentioned last month Council is investigating the possibility of a personal accident policy for members but seeks comments from members. Cost would be \$1 per member. It covers all members but obviously is more use to those actively working for members and attending meetings.

Comments are still sought from members.