

80m TXRX VK7EM

AMATEUR

QRM

RADIO

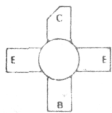
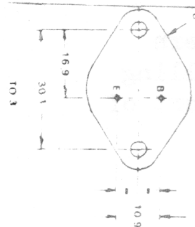
Bulletin issued by the North, North West and Southern Branches of the Wireless Institute of Australia, Tasmanian Division.

December 1978

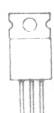
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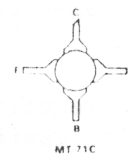
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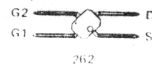
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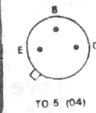
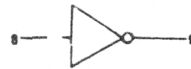
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TO 5 (04)



TO 39



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TO 18



TO 18



TO 18



TO 18



TO 18



TO 18



TO 18

Q R M COMMENT

Well, here we are at the end of another year, and all in all it has been pretty good for Amateur Radio - Greater distances achieved with the higher frequencies, more satellites up, and what looks like a win on Channel 5A. Probably the greatest achievement was the cohesive effort by Amateurs to have Channel 5A removed. This is the sort of feeling that should exist all the time for our hobby - with the greater international pressures which are likely to be applied to take away some of our frequency allocation, we must educate the masses as to the benefits to be gained by having an active and useful Amateur Radio movement.

Towards this end we need to have a Club Executive that will keep things moving. It will soon be time to select the 1979 officials, so start giving some serious thought to this important matter. Ideally, 70 per cent of the Executive should be replaced; this will give us a good mixture of experience, 30% to temper, but not inhibit the "get up and go" 70%. We need new ideas, effort and vitality every year, otherwise we stagnate.

Please give it some thought. To my knowledge, the majority of Northern Executive, including myself, are looking for replacement - but we are all willing to assist in any way our replacements. In the NW and down South, the same sort of thing is likely to apply. Radio Amateurs, of any grade, please give it some thought!

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WICEN

Have you sent your completed form in yet? Please do. For those NW members, if you send them to Peter Fudge, VK7ZFP, Peter will forward direct to Hobart.

* * * * *

NORTH WESTERN NOTES

by Jim VK7NOW

The usual monthly meeting of the NW Branch was held at Lakins Hall, Ulverstone, with an attendance of around 25 members.

Apologies: were received from the following:- Max VK7MX; Allan VK7NAL, who is presently touring various States in Australia, now at Surfers Paradise, where he has been worked by several VK7's; Terry VK7TT.

Visitors: Noel Stuttard, VK7ZNS, and also a very welcome visitor from Czechoslovakia - Zdena Vondrakova, OK2BB1. Zdena is an XYL and her name is pronounced as Zen-ah. Her brother is well known in the meat exporting business in Burnie.

Minutes of the previous meeting were read by the Secretary, Kirby, VK7KC and carried unanimously.

Correspondence: No outward.

NORTH WESTERN NOTES (Cont.)

Treasurer's Report: Report was read by the Treasurer, Ivan, VK7NOA/ZOA. The financial situation is in a healthy state.

Council Notes: by Paul, VK7ZPB, who gave some details of the "VK7" Award, the type of certificate to be issued and so on.

Paul also stated that personnel are required for training for WICEN. Personnel would be required to go out on training exercises and should be able to obtain leave from their respective places of employment to take part in any such training and emergencies.

The Secretary suggested that Council write to "Electronics Australia" and "Amateur Radio Action" with details of the activities of the three branches of the Institute in VK7.

General Business: Paul, VK7ZPB, was thanked for his effort on the 6 metre Sunday morning broadcast.

Winston, VK7EM, operated from a mine on 2m.

Best wishes were given to several members who are sitting for the next exam.

J.O.T.A. Bob, Fred, Allan and Jim gave details of some of their contacts during the Jamboree.

T.A.R.C. 1978 Fred, VK7NFR, informed us that the display was most impressive. Meals were particularly good. Syd, VK7SF, was impressed with the layout - plenty of room, and equipment was well laid out.

Activities Stephen suggested that the final meeting for the year - on Tuesday 12/12/1978, be held at the QTH of Jim, VK7NOW.

After a short meeting, some interesting 35m films will be shown by Jim. Members are asked to bring supper as usual, but no cups will be necessary. Coffee and tea will be provided. The meeting to start at 20 hours summer time (8 p.m.) Carried unanimously.

At the conclusion of general business, a 16mm sound film was shown by Jim, VK7NOW called "The Weather Watchers", and was well received.

"AX7" QSL Cards: Members placed orders for these special QSL cards. One Southern member placed an order for 180 cards and your scribe ordered 120 cards for "rag-chew" type contacts running QRP.

This wraps it up for another month, so let me say to you all on behalf of the members of the North Western Branch - "A Merry Xmas and a Happy New Year".

And finally, during the festive season, "it's better to leave your blood at the Blood Bank than on the road", so drive safely and you will arrive safely.

73 See you further down the curly cord.

Jim VK7NOW

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SOUTHERN BRANCH NOTES

Once again a good turn up at the November Southern Branch Meeting, with 41 present. This was the last meeting before T.A.R.C. and this took up a lot of the meeting. However, we did process three new member applications from Peter Vince, Ray Taylor and Graeme Floyd, and will pass them on to Council.

The Equipment Store reported that there was Scotchcal Developer in stock.

Andrew, 7AW circulated a Wicen questionnaire.

A petition on Channel 5A was circulated for signatures.

Membership rates for 1979 - \$20.00 + \$1.00 joining fee.

A "starter" talk by 7AW on Digital Electronics was well received.

The next meeting is to be a BBQ after a Field Day Broadcast. At this stage, a fox hunt will be held to the BBQ QTH - more on the Broadcast.

Elections for Southern Branch Office Bearers - WHO DO YOU WANT - SEE THEM SOON.

Andrew VK7ZAJ

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T.A.R.C. - 78 - HAMFEST

As an exercise in public relations, the 1978 Hamfest must go down as a resounding success.

During the two hours that the Hamfest was open to the public, an estimated 800 people passed through the displays.

The venue for the Hamfest was well chosen and if anybody had any complaint or if anything went wrong, we did not hear about it.

A very good dinner was held at the College on the Saturday night. Light entertainment music and dancing was provided; the guest vocalist, Cherryl, providing an excellent act.

On Sunday the WAGS provided an overwhelming lunch and to cap off the Hamfest, there followed a lively auction at which we noted: Two 813's and sockets handed in at \$10.00, an RTTY perforator went for \$7.00, a roller inductor for \$31.00, and a double bar radiator for \$1.00 - that blew the fuses at 7MC's house when turned on.

Activity on the Hamfest station AX7W1 was fairly brisk, there was even an opening to VK2 on 6 M.

Best commercial display had to be Trio - Kenwood - they did not get a prize, but they should do some business to make up for it.

(Cont. P 5)

T.A.R.C. - 78 - HAMFEST (Cont.)

1st, 2nd, 3rd prizes for amateur displays went to microprocessor users. 7PF took 1st prize with his cw reading microprocessor - the other prizes went to 7ZRO and 7RO.

The Southern boys were startled when 7ZRF set up his display in the home brew section - and walked off with first prize - Congratulations, Bob. Other prizes in the home brew section went to 7AW, 7MC, Alan Ruthven and 7ZJG.

The fox hunt prizes went to 7BB, 7ZDC, 7ZRO and 7ZGP. Comment of the Hamfest was "not another one" from Peter 7PF at winning the technical quiz after winning the first prize for the best amateur display - Well done, Peter.

There were many new faces at the Hamfest, many old acquaintances were remade, and for those amateurs that could not make it - well, we will see you at next year's T.A.R.C.

* * * * *

EQUIPMENT TENDER - SOUTHERN BRANCH

The Southern Branch have for sale the following equipment:

As Complete Units:

QTY

4 Only 100W M/F Philips Beacon Transmitters

or as individual items the following assemblies:

QTY

4 Two door equipment cabinets - 19" - on wheels
4 70 OHM-200W non inductive load resistors
4 100W RF assemblies - QB3/300 final
4 AM Modulators - 2X807 push pull output
4 Relay Control Unit - houses 15 type 3000 relays
4 Ident Keyer units
4 H.T. rectifier power supplies -
Transformer - HT of 1500V, 600V, 250V, 50VDC,
6.3V and 5VAC - All solid state rectifier

Preference will be shown to offers for the complete transmitters, however if you only want to tender for an assembly it will be accepted and the items allocated by ballot if too many tenders are received.

All tenders to Graham Johnson - VK7GD - Southern Branch Equipment Store,
50 Bayswater Road, Moonah, 2009. Phone 726412.

Closing date: 22nd December.

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"TOPICAL TOPICS"

by Jim VK7NOW

Two interesting stations to look for around 21.160 MHZ every afternoon around 0500/0530 are Bill, VK6NDZ, who is a guard on the Indian Pacific Railway. Bill works "Railmobile" and is heard at good strength using an "Argonaut" running 5 watts P.E.P. into a vertical antenna on the side of the guard's van.

Another station to look for is Harry, XEI-EFT, in Guadalajara in Mexico. Harry is on every day around the above frequency and time and speaks excellent English.

Remember the two questions I asked in last month's issue of QRM, on page 5?

Regarding the one on, "What year was the first L.P. recording put on the market?" ... the answer was as follows:

The Columbia "Graphophone" Co. of U.S.A. introduced an L.P. record in the year -- wait for it -- 1898. This was a 5" cylinder recording and was called the "Graphophone Grand", which played for around 15 minutes. We have two of these in our collection. One is unused. Edison summoned his engineers to hastily convert a "4 minute" cylinder machine to take his 5" records, but by the time he got it on the market, the 5" L.P. had become obsolete.

Now for Question No. 2 - "What year did "Quadraphonic Sound" first appear?"

Of course we all know the answer to this one. The year was 1969. The writer attended an "Audio Exhibition" held in the Exhibition Building in Melbourne in 1969 where various types of 4 Channel gear was displayed. (We managed to talk a "JA" representative out of a well-known make of 4 channel open reel deck and so had the first 4 channel equipment to be used in VK7.) So the year was 1969?

WRONG! Columbia, once again, introduced the first 4 channel sound reproducing equipment in the year 1904. I have a superb picture of this machine with a write-up.

Just imagine looking at a very early table model gramophone. Imagine the centre spindle to be around 2 feet long. Now, further imagine 4 records stacked one above the other - spaced around 4 inches apart. The 4 records were fitted over a spigot, so that when the reproducer was placed on them, the sound from each record would be "in sync". Each reproducer was fitted with a huge trumpet which was suspended on a "4 armed" telescopic stand. So, nothing is new.

Now, a question for next month:

"Who introduced the 3 element (triode) tube, and in what year?"

Just a tip. Don't say Dr. Lee DeForest! We will give you the answer next month, including a photocopy of the original hand drawn circuit of a one tube regenerative receiver, using a triode similar to the one DeForest used 2 years later!

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FOR SALE

BARLOW WADLEY RECEIVER \$225.00 OR BEST OFFER

VK7MC - Mike

Phone 306175 during week

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OCCUPATIONAL SAFETY AND HEALTH

Increasing use of chemicals for occupational and leisure activities enhances the risk of mishap and injury. It is wise to treat all chemicals as potentially hazardous in relation to bodily contact, vapour and flammability.

The following article originated from American Airlines and appeared in Aviation Safety Digest Issue No. 101. Paul VK7ZPB has passed on this article for QRM readers.

"At a recent safety conference, an eye specialist described a hazard that could affect each of us and our families. That hazard is the catalyst or hardener added to fibreglass resin before the resin is applied. The eye specialist stated that a drop of this catalyst in the eye will progressively destroy the tissue of the eye and result in blindness. This will occur even though an attempt is made to wash the catalyst from the eye. Furthermore, once the chemical has started to destroy the eye, there is no known way of stopping the destruction or repairing the damage.

The specific toxic agent involved is methyl-ethyl-ketone peroxide. (MEKP) In laboratory tests, MEKP in solutions of varying concentrations was found to cause eye problems ranging from "irritation" to severe damage. The maximum concentration producing no appreciable irritation was a solution containing only 0.6% MEKP. Material published on the subject indicates that washing an affected eye within four (4) seconds after contamination prevented injuries in all cases, but no known chemical neutraliser has been discovered. Suggested precautions for catalyst users are eye-protective spectacles and the immediate availability of a source of bland fluid such as water for thorough washing of ocular tissues.

One disastrous experience was described. While fibreglassing a chair at home, a victim had both eyes contaminated by MEKP. Though he made an effort to wash his eyes out, several minutes apparently lapsed before he found water. The sight of one eye was lost immediately. The sight of the other eye was lost gradually over a period of eight years. Its deterioration was described as resembling that resulting from mustard gas burns during World War 1.

This fibreglass resin danger was previously unknown to those attending the conference, though many had used fibreglass resin at work or at home. The hazard may be known to readers also - and to wives and children who may use a similar kind of resin and catalyst when working with fibreglass or hardeners used in liquid casting plastic.

BEFORE using any of these catalysts, check their chemical composition and TAKE appropriate precautions. The cost of a pair of safety goggles is a small price to pay for the protection of eyesight."

* * * * *

DX NOTES

by Col VK7LZ

As much of my time last month was spent in working on 52 m/hz space normally taken up by these notes will have to be taken over by Joe 7JG with the VHF notes.

It was pleasing to find that A.R.A. has now published a new DXCC countries list - something well overdue - even now we do not know if this list would be acceptable to the W.I.A. for its DXCC certificate as the ARRL list is the one normally used by the W.I.A. Listed in A.R.A. is KP4 Deseches Island and this "country" has not been approved as yet by the ARRL advisory body the DXAC although approval is expected next year.

STQ South Sudan, according to the October issue of QST, has also been accepted for DXCC recognition as from 4th February 1978. This makes the present total of DXCC countries available as 319 and an all time total of 365.

FO8 French Oceania is another listing which I cannot identify.

4U1UN, the station operated in the United Nations Headquarters building in New York, has been officially accepted for DXCC purposes. QSO's dated on or after February 1978 will count.

The event of the month was the CQWDX Contest, SSB section. This contest usually activates many unusual countries, however, the competition is enormous and the going tough. Stations of interest copied on 28 m/hz were: PJ0CO (Sint Marteen Is.) PJ9KW, PJ9CR, KH4JHJ/KH4 and some South Americans.

On 21 m/hz: PJ8CO, PJ9CR, PJ9KW, KP4O, HC1HV, H18XDJ, FG0EUU/FS (St. Bartholomy Island), 9K2FX, ZL3H1/C, 4X4UH, PY2GZY, CX4AP, KG6J1Q, KZ5ED, ZK1DR, ZZ5EG, HP1DX, 9Y4VU, CE3XV, KV4KV, H44DX, LU5MBC, HC8A, VU2TS, UF6VAG, GW4BVN.

On 14 m/hz the QRM was rugged so little listening was done here; most of the stations listed above were heard and 4U1UN was QSO'ed for a new country.

7 m/hz produced: N1GG/VP9, HH2CQ, 13MAU, CT2ARA, ZL3H1/C and EA0CR, plus G, DL and EA, in less than one hour. W and JA's were also in abundance.

Although the Mellish Reef and Chatham Island expeditions are now ancient history, all amateurs spoken to had nothing but praise for their operation. Both were QSO'ed here on 1.8 m/hz.

VK7HL recently QSO'ed ZD8RG on Assention Island and promptly passed the word along to the gang, however propagation packed up so we all missed out. Watch for him on the P29JS net or on 21.220 m/hz around 0800Z.

UK1PAA is now operating from Franz Josef Land but is mainly on C.W. No times or frequencies known.

SERRANA BANK could be put on the air in January 1979 by a group of W's.

KV4 - DESECHEO ISLAND is also expected to be activated in January by a group of five operators for 14 days.

QSL Info: 4U1UN for CQ contest QSO's only to P.O. Box 382, Village Station, New York City, N.Y. 10014. For all other QSO's to: United Nations Staff Recreation Council, Amateur Radio Club, United Nations Box 2, New York City, N.Y. 10017. ZD8RG vis K8V10 3Y1V via LA5NM.

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DOUBLE SIDEBAND R.F. CLIPPER FOR THE IC202

Approximately 6 db improvement in average PEP output can be made to the IC202 by providing 10-15 db of R.F. clipping. This is more effective than using the 3-10W linear which is available for this transceiver.

Clipping is accomplished in the balanced modulator I.C. by driving it with approx. 8V p.p. of undistorted audio.

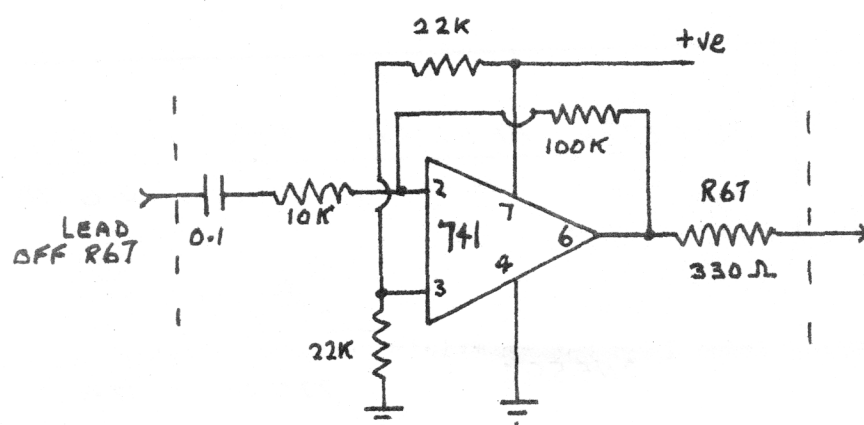
To do this, use 741 flat pack of amp as shown; insert the amplifier in series with R67, 330 ohm on the main board. The lead of R67 can be snipped in two quite easily so that no disturbance of the main P.C. board is necessary.

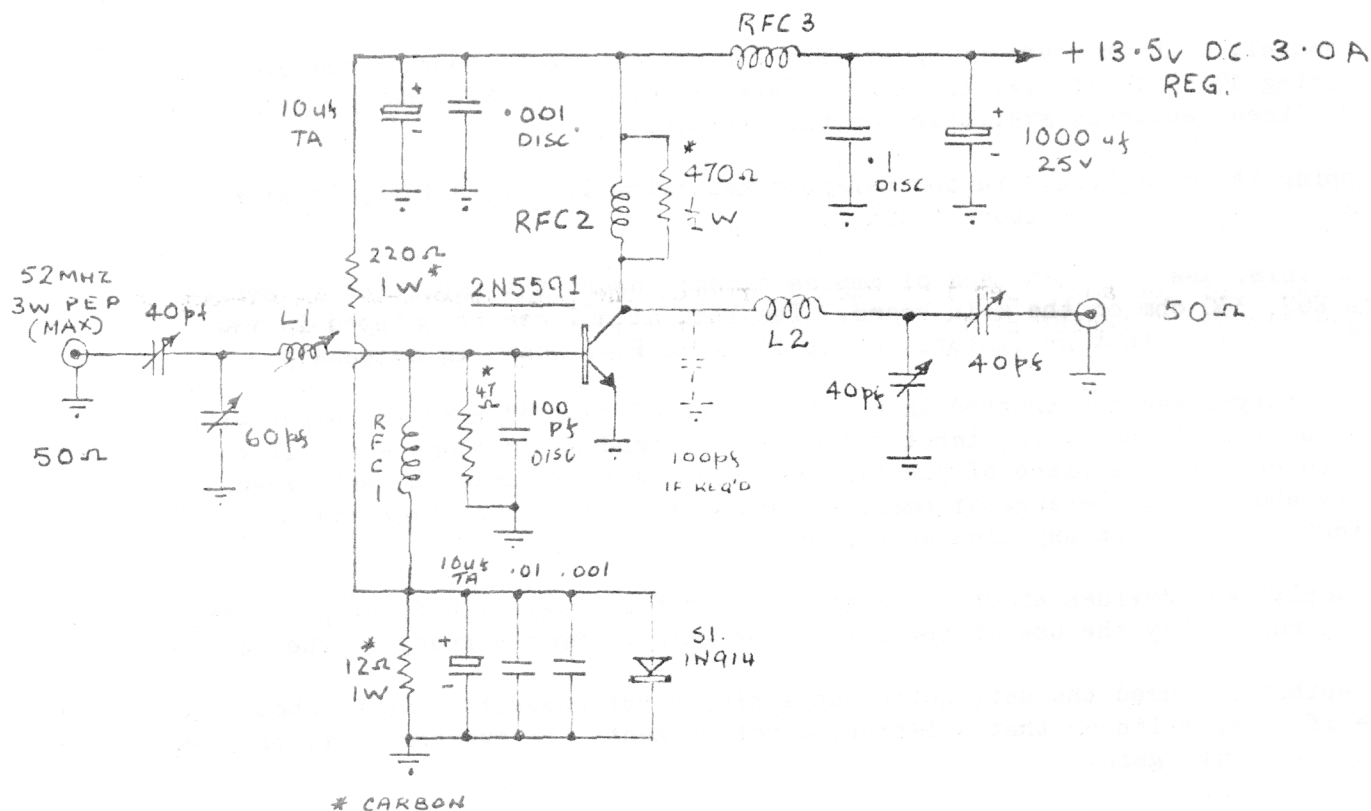
The prototype was constructed in a total space of 1" x 3/4" x 3/4" in height with the four leads +ve, -ve, input and output protruding from one end. It was then covered with a piece of plastic tape and installed into the set immediately above R67. Because of small volume of this unit the cover may be re-installed without any clearance problems.

The amplifier provides about 20 db of gain and the level of R.F. clipping can be controlled, by the use of the microphone gain trimpot already in the set.

The author has used the unit quite successfully but suggests a check should be made if using a linear that splatter is not present. To overcome this problem, reduce the mike gain.

73's Phil VK3ZRL





L1 7 TURNS 20 SWG NEOSID 722/1 F29 SLUG

L2 6 TURNS 16 SWG TINNED $\frac{5}{16}$ " ID $\frac{1}{2}$ " LONG

RFC1 $1\frac{1}{2}$ TURNS 20 SWG IN PHILLIPS 4312/020/31550

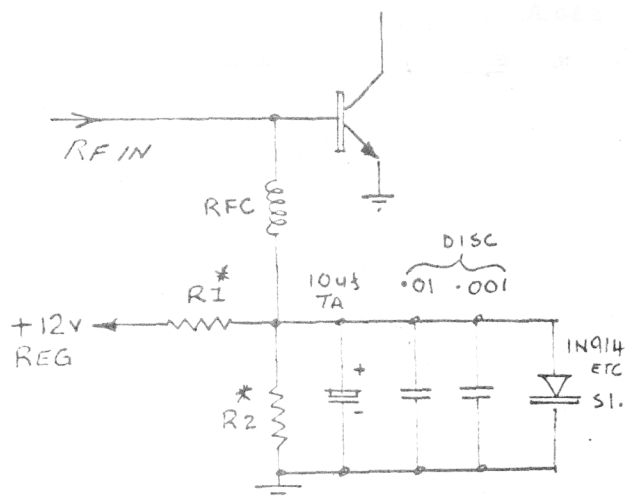
RFC2 11 TURNS 20 SWG WOUND ON 470 Ω $\frac{1}{2}$ W.

RFC3 WIRE THROUGH F29 SLUG OR TWO Fx1116 BEADS

BASED ON D.S.E. LAYOUT.

6 METER AMPLIFIER FOR IC502

J.G. '78



	R1	R2
2N5590	680 Ω	47 Ω
2N5591	220 Ω	12 Ω

* 1 WATT CARBON

R1 & R2 ARE SUGGESTED VALUES,
MAY REQUIRE MINOR ADJUSTMENT
FOR OPTIMUM PERFORMANCE.

BIAS Ckt. FOR 2N5590/91
AS LINEAR AMPLIFIERS.

6 METER AMPLIFIER FOR IC502

John, VK7ZGJ, has forwarded the circuit diagram of a very useful 6 meter linear amplifier for use with the IC502.

Essentially, the layout follows that used in the DSE linear amplifiers with bias circuit details given for the 2N5590 and 2N5591 transistors when used as linear amplifiers so as to obtain optimum performance.

Adjustment of the amplifier is straightforward; the most important step being to adjust the input tuning at low drive level for minimum V.S.W.R. at the input. Once this is accomplished, output tuning should be undertaken. The input tuning should again be checked. Any sign of instability in the amplifier being attributed to a possible mismatch at the input.

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80M Q.R.P. PART II

This month Winston, VK7EM, continues with part II of his description of his 80M Q.R.P. rig. Here are his notes on the transmitter circuit:

Close tolerance components must be used in audio phase shift network (1%). Bias stabilising diode must be thermally bonded to output transistor heat sink. Driver emitter purposely unbypassed. Audio leads from phase shift stage are phased for L.S.B. operation, or can be switched with D.P.D.T. switch for selectable sidebands.

ALIGNMENT

1. Ensure adequate R.F. drive to balanced modulators (2V P/P).
2. Check standing current of output stage (approx. 80 mA).
3. Adjust tuned circuits for resonance.
4. Connect 50 Ω load.
5. Adjust carrier balance pots for almost complete null in output.
6. Apply pure single tone of suitable level to mic. socket. Adjust items marked O for best sideband suppression, waveform on C.R.O. should look like unmodulated carrier.
7. Apply two tone signal (or unbalance one modulator with single tone applied) and check for 2-3 watts P.E.P. out.
8. Adjust mic. gain for optimum drive.

(Cont. P12)

"THE LISTENING POST"

by "Earwig"

Have you heard the station calling itself "The Voice of the Malayan Revolutionary Forces", and wondered what you were hearing? Well, this station is a clandestine station, and its transmissions are in English, Malay and Cantonese and was logged here at 0945 until 1010 GMT. Its programmes are supporting Malayan communist guerrillas who are still fighting in remote jungle areas near the Malay-Thai border and in the Northern Borneo jungles against the Malaysian forces since the end of World War II. However, the transmissions seem to be coming from the People's Republic of China as it is a frequency that Peking has utilized in various Asiatic language programmes. The programmes do have a strong pro-China bias and in fact one segment of the programme logged at the time was produced in Australia by students from Malaysia whose sympathies are with the guerilla movement and the Communist Party of Malay at 3CR in Melbourne. Listen for it on 15770 Khz between 0930-1045Z. SINPO reading 55445.

Also, you can hear the other side from Kuala Lumpur on 15295 from 1030 GMT. The programme is in Chinese and quite strong here with slight interference from Radio Moscow on the same frequency.

A new country logged here recently was Finland. It was logged at 0930Z on 21495 Khz in English with a programme for S.E. Asia. However, its signal was only fair; SINPO 34223.

According to the BBC World Radio Club, Uganda has been monitored on 15325 Khz at approximately 1800 GMT. The transmission was in English. It is inaudible here in Tasmania at the present time. Also, the BBC have heard Bangla Desh on 9580 between 0600 and 0930 with programmes in English/Bengali directed to Europe.

It does appear that Radio Peace and Progress has ceased transmission or has been curtailed since Moscow launched its World Service.

A station, believed to be in Saudi Arabia, is being heard here from 0600Z on 15060 Khz. The broadcast is in Arabic and is quite strong. 55434. Also Israel can be heard daily in English at 0500 on 11655 Khz with a news broadcast relay from the "D" network. The signals are excellent; 555455 from 0515 an identical programme is aired, but in French.

A new American broadcaster has emerged on SW. It is the U.S. National Public Radio Network and is on the air from 2200-2300Z with a news/current affairs format similar to the ABC "AM" programme. It is on 15430 Khz on a frequency normally used by the Armed Forces Network, but there was no AFN ID's during the hour long broadcast from Washington. However, AFN programmes were heard from 2305 on the same frequency.

Now for a few exotic DX snippets. A Laotian regional station was heard in the U.K. on 6600.8 Khz at 2250Z. It is extremely unlikely that we would be fortunate to hear it at this time to hear the only SW outlet from Laos. Also Campuchea (Cambodia) has also been heard on 9693 but its broadcast are very erratic as there does not appear to be any regular scheduled programmes from Phnom Penh. Kuwait is being logged at 0900Z in Arabic on 21605 Khz.

As from 23rd November, AM broadcasts on the MW world wide will be going over to 9 Khz channel spacing. Local stations will be shifting frequency between +/- 4 Khz. The only frequency change locally I know of is 7EX going to 1008 (1010) and at this stage I don't have any other changes. Please let me know of any frequency changes made by your local stations so we can pass it on to the column's readers.

(Cont. P 14)

As this will be the last QRM published before the Christmas and New Year period, may I extend my best wishes for the Yuletide season and hope that 1979 will bring all that you may desire.

73's "The Earwig"

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MINUTES OF MONTHLY MEETING OF NORTHERN BRANCH OF WIRELESS INSTITUTE OF AUSTRALIA
HELD AT CLUB ROOMS, BOURKE STREET, LAUNCESTON ON FRIDAY 10TH NOVEMBER 1978

The President, Joe Gelston (VK7JG) in the chair, welcomed all members and noted the following apologies: Kevin Hendricks, Lucy Lockett (Mrs), Ed Hewens and Ed Bevis.

Attendance: 26 members

Minutes of the previous meeting were circulated for perusal; Moved Brian (VK7ZBY) that minutes as set down be confirmed, seconded Lindsay (VK7ZLD), carried.

Correspondence:

Outwards - Confirmed that a letter of thanks to Ladies Committee for conducting the Wine and Cheese Tasting evening was dispatched.

Inwards and Accounts were tabled for information and discussion ensued.

Treasurer's Report:

Treasurer, Tony (VK7TP) presented the Monthly Trading Summary showing bank balance currently \$1,538.95.

The following accounts verified by Tony for payment: Post Box No. 275, H.E.C. Mt. Barrow Repeater A/c, and suppliers A/cs for Store purchases etc., Moved Tony (VK7TP) and seconded Bob (VK7ZRF) that accounts presented be paid. Carried.

Stores Report:

Submitted by Ian Clements and detailed his recent visit to Federal Office whereby Ian was able to clarify several outstanding orders in the book line. The availability of shelf lines were noted (and a number of points raised there should be of benefit to all Members.

Federal Report:

Peter Frith (VK7PF) played the Federal Tape received from Peter Wolfonden (Exec. Vice President) dealing at length with Channel 5A, submissions and outlining remarks by David Joule (Queensland Fed. M.P.) Secretary of the Parliamentary Committee set up to advise the Minister on the technical ramifications of the case.

T.A.R.C. Report:

Joe Gelston reported on the highly successful convention held recently at the Mt. Nelson Campus T.C.A.E., covering Field Activities, Home Brew and Commercial Displays of Equipment and commended the sound organisation behind the project.

Bill Tanner (VK7TE) spoke of the lack of publicity on the project. However, a good attendance of the general public was noted during the "OPEN SESSION" of the convention even so.

Q R M Report by John (VK7CCC)

There has been a delay in going to print on the above and packing night is set down for Wednesday 15th November - volunteers please.

J.O.T.A.

Reports by Robin (VK7RH) with the 18th Launceston Sea Scouts of a very successful turnout on 22nd and 23rd October 1978.

Also from Graham (VK7ZGG) that both he and Ed (VK7HE) had catered for several groups in a like manner, over the same period at a portable location, in the North.

Christmas Festivities:

Proposed barbeque for 9th December 1978 at the Kings Meadows High School Gym. See QRM Magazine for details.

Other Matters:

Raised by Members for Club participation were National Field Day and W.I.C.E.N.

Exercise for consideration in conjunction with the proposed Mini-Olympics for Handicapped People in 1979.

At the conclusion of the general business, members were entertained by Peter Frith with a fine collection of tape excerpts of past, present and working satellites, both of the U.S.A. Coastguard, as well, Amset Oscars Nos. 7 and 8. Peter detailed the launching procedures and outlined by means of the chart the formula for determining the availability of the "Oscars". Operation in Modes "A" and "B" were explained as well as brief details of the new Russian Satellites (2?) currently in orbit around the earth. Thank you, Peter.

Supper was served and this concluded the evening.

* * * * *

MICRO-PROCESSOR PROGRAM FOR GENERATING RANDOM CALLSIGNS FOR C.W. PRACTICE VK7JV

LIST

```
10 REM, random letters and numerals for morse code
20 REM, practise, in blocks of 5 by 5
30 REM, written in PTC EXTENDED BASIC by
40 REM,          JOHN VK7JV
```

```
110 FOR A=1 TO 6
120 FOR I=1 TO 5
130 FOR J=1 TO 5
140 GOSUB 280
150 PRINT CHR(X);" ";
160 NEXT J
170 FOR J= 1 TO 5
180 GOSUB 280
190 PRINT TAB(20);CHR(X);" ";
200 NEXT J
210 FOR J= 1 to 5
220 GOSUB 280
230 PRINT TAB(40);CHR(X);" ";
240 NEXT J : PRINT
250 NEXT I : PRINT :PRINT
260 NEXT A
270 GOTO 320

275 REM, line 280 decides if it is to be a letter
276 REM, or a numeral.

280 Y=INT(4*RND(Ø)+1)
290 IF Y>1 THEN 310
300 X=INT(10*RND(Ø)+48): RETURN
310 X=INT(26*RND(Ø)+65): RETURN
320 INPUT "DO YOU WANT MORE? ", Y$
330 IF Y$= "YES" THEN 110
340 END
```

To eliminate duplication on a single block line the following could be added and changed

```
300 and 310 remove RETURN and replace it with GOTO 315
315 FOR C= 1 TO 5: IF J(C)=X THEN 280: NEXT C
317 J(J)=X : RETURN
```

RUN

Q D M 3 L	T X S W C	Q W D B H
Z B W E Y	Z A P Ø A	6 A 2 B F
H 9 R H F	H W K E W	4 B I G B
U O W F 7	6 H B U Y	6 G 4 G N
R G V V G	4 Y 2 7 H	1 W 6 W Y
W R B H 9	6 P 9 T E	D 2 W 8 N
J Q 2 I F	8 C Ø S R	E S 4 D X
Q S 4 T 3	1 U X 1 X	9 Y Z F S
B W 9 X 9	G Q I 9 W	N T J M O
T L H J 8	Q 5 A R 3	L D X N H
Y D E P H	B D N W J	A N M 3 7
W 9 P Ø 8	D J Z B Y	U 5 1 A O
T C 4 L 5	P C J G 2	G T C O U
H Q Z D L	1 G Z D Ø	W B T 7 O
P Z F 6 7	E U Ø L 2	P 6 8 I 6
R O 4 N V	M I E L 6	V Y C Z B
6 R U K O	J L Q X 4	U M 3 A 7
2 B L G P	Ø 3 2 A 3	7 W V M N
V S 9 2 R	M S G T 5	V Z L 6 O
D F 1 A R	Z H 7 1 E	P J W M 8
X Q 9 A Ø	6 1 J L G	T A P B 5
H T I C Q	5 O 2 W B	M P E 2 F
O 8 V Z 5	Ø 7 Y S M	O F L C K
W I B Ø R	F 7 H L I	S X 1 K O
A T V U I	P 5 O Y B	4 X T U K
W F D P X	4 M 9 2 F	B W Z I 8
K O F R V	4 C J I 2	Y M V K U
I 9 G M X	Q D L T J	4 G S 3 R
I M N P J	8 5 3 C S	O V G 2 D
B I K Z L	Q 9 U S V	T N J M X

SAFETY HAZARD - POWER TRANSISTORS

Certain types of power transistors, particularly Ceramic Heat Sink VHF types, have a safety handling requirement.

With this type of transistor, the ceramic heat sink portion contains Beryllium Oxide as the major ingredient and it is used for its thermo couple properties. The danger lies in the instance of the oxide being released by damage or by tampering with the device. If the oxide is reduced to a powder and inhaled, it is extremely toxic.

Should these transistor types be broken open for any reason and it must not be a deliberate action, the fractured parts, dust and chips are to be placed in a polythene bag without touching the exposed Beryllia. The contaminated area is to be cleaned down with a damp tissue which is then placed in the bag and the whole disposed of by burial in the ground.

Some transistors carry warning labels and some data handbooks make mention of the hazard but this is not always the case. If any doubt exists about a transistor, the above precautions should be followed.

Stripline type transistors, such as the 2N5641 and 2N5642, require special care during handling and assembly. The following points should be noted:

- (i) The devices should always be mounted so that the ceramic to metal joints are never in tension. The device should be secured to the heatsink before soldering the leads.
- (ii) The leads must not be used to prevent the device rotating while tightening the stud nut. A flat is provided on the device stud, and this should be held with a spanner or pliers. Torque on stud nuts must not exceed 6.5 lb-in.
- (iii) Avoid using an excessive amount of heatsink compound, but always use a small amount between the stud and the heatsink.
- (iv) The devices contain Beryllium Oxide, which is extremely toxic if inhaled or injected into the human body. Take care not to break the package; if it is broken, dispose of it by burial, not incineration.
- (v) Handled properly, the devices present no danger.

73's Paul VK7ZPB

* * * * *

VHF NOTES

by Joe VK7JG

If activity for the past month is any indication, six metres this summer should provide some interesting DX contacts. To date all JA call areas have been worked, most of VK along with P29 and ZL, with JA's taking up the majority of the contacts in the last four pages of my log book. As yet Bill, VK9ZM has not been worked although he has heard VK2's and VK3's.

Having my workshop and shack in the same room does have its advantages, especially during the daytime openings. On 23/11/78 six was open for several hours from 0100Z to JA.

I had a long QSO with JA7MK and he told me that the band was open from JA to KG6KGO and KA6AOE - VK, ZL3 and 4. Incidentally, the KG6 was operating on 50.11 Mhz. I had a listen around 50-50.5 but heard nothing but JA's.

Two metres has been very quiet with Kevin, VK7ZAH, keeping daily ~~skeds~~ with VK3BKF on almost all occasions. 432 Mhz contact is also made. On 24/11/78 a slight inversion was experienced and Ray, VK3AWQ worked Kevin using 3 watts from an IC202 as well as several other stations.

Tony, VK7TP had his first 432 Mhz contact during the week using a home brew transverter.

That's all for now - see you in February.

* * * * *

NEW YEAR'S EVENING BARBECUE

Start around 4 p.m. Location - QTH of VK7CCC - See map below. Drinks for everyone, all supplied free - Bring your own food, salad, cutlery, glasses, etc. Soft music. See you all there. P.S. If you get full, camping facilities are available.

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Q R M

December 1978

ADVANCED ELECTRONICS

A new store called Advanced Electronics has opened in Launceston. It is managed by Rick Becker who is assisted by Roger Wooley. It will fill a need long required by radio hobbyists.

The component man can go in and select his choice from a very large range, as many or as few as he requires. He marks these down on forms which are supplied, which saves time and effort at the final tally. Virtually a full range of Silicon Valley components are carried as well as a lot of the hard to get variety.

All sorts of tools, test gear, toroid kits, kits for kids - you name it - Agents for Kenwood amateur radio gear as well as the usual superb range of musical equipment. As an opening special, ask about the price of a TS520 !! Every month we hope to have that "special item" available.

Make use of the notice board supplied free of charge for any use pertaining to our hobby - Wanted to Buy, Sell, etc, Next Meetings - anything along this line. If you as a licensed amateur would like to devote some free time on a Friday night or Saturday morning furthering the W.I.A. cause, by means of advice to prospective amateurs, then let Rick know. This also goes for any items you need that aren't on show, and for constructive criticism. This shop is for our benefit as well as the owners. Theirs is the bigger gamble - ~~Ours~~ ~~is more~~ to lose. Let's use it. Look for the full page advert in February Q R M.

In addition to all the above, Advanced Electronics is also your local Dick Smith agent, with prices on a par with the mainland.

For the best home brew equipment - Advanced Electronics in conjunction with Kenwood Australia - are giving an annual prize of an amateur radio clock - this year's recipient was Bob Grant, VK7ZRF - Well done, Bob!

* * * * *

NEXT YEAR'S NATIONAL FIELD DAY

Volunteers wanted - at present VK7CCC will be having a station at Evandale. Date: 23-24 February 1978. Names to the Executive if interested.

* * * * *

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from Reg Emmett, VK7KK

I agree to accept nomination _____ (nominee)