

TASMANIAN AMATEUR RADIO

P.O. BOX 275
LAUNCESTON
TAS. — 7250

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Southern Branches of the Wireless Institute
of Australia, Tasmanian Division

FEBRUARY 1980



MEETINGS : Northern Branch General 8th Feb.
North West Annual General 12th Feb.
Southern Branch Annual General 6th Feb.

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JOHN MOYLE MEMORIAL FIELD DAY CONTEST

THE TASMANIAN "DEVIL" AWARD

This award is created to interest Australian and overseas amateurs in contacting reasonably rare VK7s. Tasmania, the island State of Australia, has many unique features the "Devil" award is named after one of these.

To Qualify You may qualify for the award in any one of the sections or sub-sections.

Sections 1/M.F/H.F. (a) Open-by the use of any combination of bands up to 30MHz, and modes available to applicant.
 (b) One band-of those available.
 (c) One mode-of those available.
 (d) All Novice-contacts with Novice calls.

2/V.H.F. (a) Open-by the use of any combination of bands above 30MHz, and modes available to applicant.
 (b) One band-of those available.
 (c) Satellite-contacts via Amateur Satellites.
 Cross band to H.F. allowed if permitted under licence terms.
 (d) Repeater-via in-band repeaters.

Claims H.F. Applicants must establish two way contact with a number of VK7 Amateurs depending on the applicants location.
 Australia including Tas. 50 contacts
 Oceania, Antarctica 30 contacts
 Asia, North America 20 contacts
 Europe, South America 10 contacts
 Africa 7 contacts

V.H.F. Applicants to contact 20 VK7 amateurs with at least one station in each of the three W.I.A. Branch areas.

Verification Claim logs, with applicants name, call, section, to show station contacted, date, time, band and mode. The claim to be signed by applicant and countersigned by two other amateurs. Spot checks will be made with contacted stations in VK7 for confirmation.
 *****Q.S.L's will not be required*****

Commencement Contacts made since first day of January 1978 can be used in claims.

Applications A fee of 10 IRC's overseas or 5 IRC's within Australia or equivalent should accompany claim to cover cost of award and postage and be sent to:
 VK7 QSL Bureau
 P.O. Box 371 D
 Hobart, Tas. 7001.

NORTH WEST BRANCH SPECIAL MEETING for H.F. RADIO TOPICS

DATE : Tuesday February the 19th, 8 PM at the Penguin High School.

TOPIC : Mr. Roger Stubbe from QUITO, ECUADOR will be in our area for 3 days in Feb and is anxious to meet and talk with as many amateurs as possible. He will be at the Penguin High School to talk with us about H.F. transmissions, equipment, Hydro power supplies, antennae and the new steerable H.F. antenna. Also the 500 KW TX soon to be commissioned by the Mission station HCJV in Ecuador.

Roger Stubbe has held an Amateur license since the age of 16 and since 1965 has been involved in Transmitter installation and mnce and power generation, in his capacity as Director of the transmitter site, Director of Engineering and lately as Frequency Manager.

All amateurs interested in H.F. radio, associates and friends are welcome to come along to this very interesting talk.

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AND CAPACITANCE METER.
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NORTHERN BRANCH NOTES by Ken VK7ZKT

The last monthly Business meeting of this Branch was held at the Bourke St. clubrooms on the 14th of December and was chaired by Reg VK7KK. (note that there was no Jan QRM so this is the first opportunity to publish them)

The formalities of the meeting, namely the Treasurers report from Bill 7NAC, receipt of correspondence etc, were dispensed with and reports from office bearers were presented ;

Equipment Store ; David, 7YY reported that there are still some 1979 call books available and these or any other equipment can be obtained from the store at Bourke St. on any Friday night between 7.30 and 9 PM. David indicated that he was ordering a quantity of ferrites, coil formers etc, from VK5 which are items not readily available locally.

QSL Officer ; The matter of printing QSL cards for VK7NB was raised as the old cards are for VK7NZ. Also some cards are needed for VK7RNT the 52.4 MHz beacon in Launceston. It was agreed to have about 500 cards printed with some for VK7RNT.

QRM (aptly named); Ken 7ZKT reported on a costing for QRM in 1980 and found that it will be necessary to increase the advertising rates slightly. Provided that the current advertisers continue their support then this revenue together with a \$1 subsidy per member per year from Division will allow QRM just to break even. The new rates are as follows.

	Full page	Half page	Third page	- per year
	\$90 (10)	\$60 (7)	\$45 (5)	

The amounts in brackets are for single (one off) issues.

Ken also pointed out that the Branch will be needing a new Editor for 1980 after March and if anyone is interested in taking it on then he would be available to offer assistance.

WICEN ; Robin 7RH, reported that the Mini-Olympics/WICEN exercise was well received and provided a necessary emergency link in the event of medical problems, which fortunately did not eventuate. Robin, on behalf of the mini-olympics committee, presented a medallion to the Branch as a token of their appreciation of the efforts of those that took part in the exercise. In a query, Ken 7ZKT questioned the use of Zulu time in WICEN exercises as this conflicts with the normal practice of SES and other civil emergency organisations that all use 24 hour format on local time, unless crossing time zones.

Librarian ; Gary indicated that books were to be labelled and distinctly marked before the new year. He also asked that anyone who wished to donate technical books or amateur magazines that are reasonably current, then please bring them along.

GENERAL BUSINESS ; New membership - not exactly new, but welcome to Andre 7AE (no longer always easy) We hope that Andre will play an active part in the affairs of the Branch. The motion to accept was moved and carried unanimously.

Alanvale College convention site ; as an indication of sincere thanks to the college, it was agreed to purchase and donate both of the volumes of RSGB handbook to the college library.

In general discussion it was proposed to purchase a DC power supply for both the TS120V and the IC22S that belong to the club and also an ATU, as the TS120V tends to shut down on the present multiband dipole the club has. The meeting in its wisdom, decided that although we have about three thousand dollars in the bank, that we should build the (cont)

required power supplies and tuning units, preferably at as little cost to the Branch as possible. While this is quite correct in principle, it still means further indeterminate delay in getting the club station operational. Fortunately, a power supply for the IC22S has been kindly loaned to this seemingly short of funds branch.

VHF and ATV Repeaters ; This is probably a misnomer as the ATV repeater exists only in principle at the moment, but hopefully with the efforts of Bob 7ZRF and other interested members it may be yet possible. It was indicated that the construction of a new repeater 8 Mt. Barrow, was proceeding. The new TX will be solid state and as such would be far cheaper to operate. Actually the savings in power costs over a few years would pay for the new repeater.

Spurious Emissions ; It was agreed to follow up a complaint about high level spurious signals originating from the TV translator at Juliana St that are present within the 6 metre band.

Branch Funds ; In a formal motion, it was agreed to transfer \$1000 from the Branch operating cheque account into a high interest account with the Equitable Building Society. This account is in addition to the existing clubroom account. It was also agreed in a formal motion, to put any profit from TARC into the Clubroom account.

Next Meeting ; Executive 1st February

General 8th February (non-business)

Please remember that nominations for Branch Office bearers will need to be in no later than the Feb meeting.

JOHN MOYLE MEMORIAL FIELD DAY / NORTHERN BRANCH 9-10th Feb

The Northern Branch VK7NB will be conducting a field day as part of the John Moyle Memorial. The period of the field day is as for the contest ; 0400 Z on the 9th Feb to 0600 Z 10th Feb .

The contest will be at Kallies Lookout .

The Southern Branch welcomes two new members - Sandy Powell, who has rejoined after a gap of several years, and Michael McDermott. It is good to see both new faces and those amateurs returning to the "fold" who have much to offer in experience to the WIA.

WAGS members suggested a minihamfest be held in the new year, mainly being a social event. At the last meeting, there was a very enthusiastic response to this; although the location being Bruny Is. was not so keenly received (perhaps because of the compulsory ferrying of so many for such a long time in Hobart). However, after considering various alternative sites, Bruny - Adventure Bay - remained the location of choice, particularly as WAGS were landed the responsibility of organizing the minihamfest. Details of this weekend appear elsewhere in QRM.

Details of next months meeting - the AGM - elections.....elections..
..... elections; this meeting starts promptly at 8pm on Wed, 6th, Feb.
so roll up, and get YOUR candidate in.

MINIHAMFEST - BRUNY ISLAND - 23/24th. Feb.

I/we will.. be requiring lunch on Sun. (small charge).
will not..

PAID _____ DATE _____

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It is believed that Jan,XYL of Rob VK7NRH has passed her NAOCP. Congratulations Jan, and hopefully you will soon have a call. Unfortunately there are no details on any other successful applicants to last November's exams. If you know of anyone passing please pass it on.

A minihamfest has not happened in Southern Tasmania for many a long year, if at all; so this weekend will be somewhat of an experiment..... It is intended to be a get together socially of families, plus amateurs, with some radio type activities for those addicted.

Site - Adventure Bay, Bruny Is. A beautiful beach facing the open seas; has a hall which has been booked for the weekend and comes complete with tennis courts (so bring your racket). The nearby Bligh Museum is well worth a visit; and for the kiddies - feeding the fairy penguins at dawn or dusk.

Transport Your own; catch the ferry at Kettering; then turn south following signposts. The ferry timetable for each weekend is published in Friday's Mercury. I am advised by the Bruny commuters, ie. the Ruthvens, that both ferries are running and the best idea isto arrive 20/30 mins. before the ferry is due to depart; then you should have no problems in catching that ferry.

Accommodation Organize your own; some are taking vans, or units; the Lumeah Holiday Units (BYO linen/food) approx \$25 per night for a family. Phone 931133. Caravan parks, there are two, with sites and onsite vans (sleep 6) approx. cost \$5 site, and \$7 a van. Phone 931114 - Adventure Bay Caravan Park. Phone 931128 - Municipal Caravan Park.

Programme To be kept to a minimum. Arrive when you like, probably lunchtime Sat. AT 2.00pm. Talk by Andrew Boon (VK7AW) on the use of field repeaters, followed by a WICEN exercise.

4.00pm. (when AWis finished) afternoon tea is provided by WAGS (included in w/e cost). A beach cricket match may follow for those so inclined.

6.00pm. Barbeque dinner forthe children followed by dinner for the adults. Salads etc. are provided, but please byo meat and alcohol. The use of one or two extra portable bbq's would be appreciated.

After dinner - taped music, games, ie darts, monopoly etc.

Sat. pm entertainment - computer games (bring your own). Supper, coffee is provided.

Sun. am Broadcast 9.30.

10.15 Morning tea - provided.

10.30 Free morning /radio workshop/fox hunt (to be decided).

12.00 Lunch - Hot Dogs /sausages with fresh baked island bread rolls will be available at a small charge.

Cost

As per application form ie \$1.50 each.

\$3.00 double.

\$4.00 family (to cover the hall hire,

food, coffee etc.).

Please send form or notify verbally Sue ZSU, Judy Boon, or Dorothy Noble (285807, or AW/FT) at the Feb. meeting, (preferably) or before the Mon. 18th of February.

FOR SALE

BC 221 Frequency Meter \$25

HEATH RF Signal Generator \$35

CDR Antenna Rotator / extra bearing \$40

YAESU FC 901 Antenna Tuner \$200

KENWOOD TV 506 6 metre Transverter \$200

VK7BC

The first meeting of the New Year was held at the Penguin High clubroom on the 8th January. The Chairman welcomed all those present, totalling 33 which included several Northern Branch members. Ed VK7HE was one of the Northern members who attended. The Secretary read the minutes of the last meeting which were confirmed.

IARC 1980 The unanimous opinion of the meeting was to agree to the Branch hosting the 1980 convention. Discussion was held regarding the formation of an organising committee.

ATV Group Tony VK7AX, advised that a meeting held 4 weeks ago, had revolved around an ATV repeater. The ATV group has a satisfactory credit, being the results of a sale of parts etc. The next ATV group meeting is on Jan 11th.

Christmas Stocking Raffle A giant stocking was raffled as an activity to raise additional funds from the outside public. An amount of \$340 profit was made which goes into the Capital account. The Chairman advised that the finances of the Branch were getting healthier.

QSL Officer Don 7NDP advised that this area was functioning smoothly.

General Business It was put to the meeting that the Sunday morning broadcast originate on 2 metres. This would give everybody the opportunity of receiving a strong, interference free signal. This would also give those stations doing the relay on all other frequencies (including 80 metres) a first class signal to begin with. This has been done in the North with great success. It was agreed to put this matter to Council for consideration.

Office Bearers for 1980 The filling of positions for Office Bearers for the coming year was spoken on and several of the members currently holding a position indicated that they will re-hominate.

Activity With the assistance of Vince, 7NVH, Winston, 7EM gave a most interesting lecture on the construction and operation of a Metal Detector. Two types were discussed and the features and advantages of each type explored.

The meeting concluded with supper served by the Devonport members.

NOTE The next meeting of the North west Branch is the Annual General Meeting. This will be on the 12th February at Penguin clubrooms.

RADIO ASTRONOMY written by Jim VK7NOW

I wonder how many amateurs know, that we have living in VK7 an ex W9 who is one of the foremost authorities in the world on Radio Astronomy. Such a person is Grote Reber, ex W9-GFZ late of Illinois, U.S.A....Being one of the few members of A.W.A. (Antique Wireless Association of Holcomb, N.York) in Australia, of which Grote is an Honorary Life member, I, together with Bill VK7AK received a special invitation to visit Grote's QTH on Monday of this week. (14.1.80)

Just imagine an antennae farm covering around 550 acres! The longest portion is 2,200 metres long and the actual antenna is a Phased array, consisting of 128 dipoles slung between 80 foot masts. The special receiver is centred on 1150 KHz but this can be varied.

You may well ask "what is all this for". Well, Grote is continuing with the experiments which were conducted by the late Karl Jansky of New Jersey in the 1930's and he is receiving on a paper roll signals, which emanate from the Milky Way and beyond. Signals from millions of miles and thousands of light years away...Compared to this, the DX we work is hardly worth mentioning.

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9

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27.88 Marine use \$55.00 each.

Mobile whips for Six and Two Metres

Scalar SC22DX 5 Band trap verticals

Discone Antenna 60-500 Mhz.

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SX200 Programmable Scanner 26-180 and 380-514 Mhz. AM/FM 240 AC or
12 v DC. \$479.00

R517 Hand Held AIRBAND Receiver 108-136 Mhz Continuous Tuning or
3 Crystal locked Chns. \$104.00

Scan-X Base Antenna Discone Type operates 65-520 Mhz 3db Gain.

VHF notes.

Although 2 months has passed since last QRM there is very little of
interest to report on VHF activity Six metres has only been active
on a few occasions and no new countries or any exotic DX has been
worked. Lets hope the coming Equinox period provides some long
haul DX contacts when we hope W-VK contacts will be a regular occurrence

Two metres has also been quiet with the usual Good Inversions across
to VK3 providing some SSN activity as well as the usual Repeater
contacts.

For IC22S owners here is an improvement for your rig.

From VICOM Ham News.

Tried by the technical staff with excellent results, this one provides
additional front end sensitivity both on lab. tests and in the field
and an average unit opens the mute finally set at .09 microvolt.
Conversion involves lifting the earthy end of R1, a 150 ohm resistor
and placing 3 ferrite beads on the lead and reconnecting it to the
board. Short out R23 a trimpot, by sliding the pot to earth. That is
all there is to it with results as mentioned above.

73

Joe Gelston

VK7JG.

TOPICAL TOPIC : It is believed that Kevin Z2AH has been constructing
an FM Broadcast TX. It is also believed that the group involved (Liton
FM Community Group) has obtained approval to conduct a test transmission
at the end of Feb. So have a listen on the 88-108 MHz band (FM) at the
end of Feb, and if our spies are correct, you may hear the first FM
Stereo transmission in Launceston.....

THE REVEREND JOHN FLYNN MEMORIAL AWARD

Conducted by the Alice Springs Community College Radio Club

This award has been instigated by the A.S.C.C.R.C. in memory of the Reverend John Flynn, who was the founder of the Australian Inland Mission, the Royal Flying Doctor Service and radio communication in general in outback Australia. Today, largely thanks to the efforts of John Flynn, every cattle station and settlement in the outback has radio communications... Flynn spent his whole working life in the outback helping others, no matter what nationality or colour.

This year, 1980, is the 100th year since the birth of John Flynn and the Alice Springs Community College Radio Club has printed 2000 certificates in memory of this great man.

The conditions for obtaining this special award are as follows ;

VK Stations 3 contacts Alice Springs Club members

Overseas Stations 2 contacts Alice Springs Club members

All SWL's 3 contacts Alice Springs Club members

ALL BANDS ALL MODES

Commencing at 0001 1/1/80. Each certificate will be individually numbered and signed by the President and the Awards Committee of the A.S.C.C.R.C.....Cost will be \$3 Aust, including Air Mail postage.

Log extracts showing Date, Time (GMT) and stations worked. Log to be signed by two other amateurs..Contacts 24 hours apart with the same stations allowed..All funds generated by this award go to charity.

This award is one of a kind and the A.S.C.C.R.C. hopes that it will be treasured by the 2,000 people lucky enough to obtain it.

For further information write to.. Awards Manager A.S.C.C.R.C.
P.O. Box 2953 Alice Springs
Northern Territory 5750

THE ATHOL JOHNSON MEMORIAL CONTEST

In line with previous contests, some minor changes have been made to try and improve the participation rate.

Taking all suggestions into consideration, this year the shortened, eight hour contest will run from 1200 local time to 2000 Feb 23rd.

Object : To promote VHF activity in VK7

- Rules
- 1) There is only one section, transmitting open.
 - 2) All modes may be used, cross mode contacts are allowed but not cross band except for satellite contacts.
 - 3) Repeaters may be used but score one point per contact.
 - 4) A scoring contact may be made every hour.
 - 5) Entrants must operate within the terms of their license.

Cyphers Before points may be claimed for a contact, a 5 or 6 figure number must be exchanged, this will consist of a R.S.(T) report, plus three figures to commence with 001 and to increase by one for each successive contact

Scoring 2 points for each QSO on each of the VHF bands, 52 MHz and above. Repeater contacts score 1 point.

Cover sheet to show call sign, name and address, details of equipment, points claimed and a signed declaration that all rules and regulations have been observed.....All logs to be sent to : The VHF Officer
P.O. Box 1010
Launceston 7250

Reprinted from an article by VK5AVQ in S.A. Division Journal Oct 79

Beacon transmitters, which produce an identifiable signal throughout the year, 24 hours per day, are a valuable guide to band openings for interstate and overseas stations.

In June 1963, the VNF group of the S.A. Division of the WIA first commissioned the 6 metre beacon on a frequency of 50.5 MHz. In July of the same year, the 2 metre beacon was operational on 144.3 MHz with the call sign of VK5VF. However, there were problems with the 2 metre frequency selected originally and this was subsequently changed to 144.8 MHz, as it is now.

In 1964, the 50 - 52 MHz allocation was withdrawn in Australia and on April 1st 1964, the frequency of the 6 metre beacon was changed to 53.0 MHz. The site at that time was Mt. Lefty, thanks to the management of television station ADS7.

Shortly afterwards, there was a slight relocation of the site, with the antennae for both beacons being mounted on a Stobie pole. These are stacked "pig wheels" giving 6 dB gain on 2 metres and a turnstile for 6 metres.

Both transmitters have about 15 watts output and use 6 6BW6's, with a 6/4J output stage and a 3/20 on 2 and 6 metres respectively. The units are keyed by an optical keyer, which consists of a rotating coded disc intersecting a light beam to a photocell. The identification lasts for 7 seconds in every 30 seconds of transmission. A couple of years ago the antennae were rebuilt, as they were badly weathered and scorched by many lightning strikes.

The beacons have been highly reliable and it has seemed pointless to modernise them. However, spare valves are becoming increasingly difficult to obtain and if anybody can help in this area it would be greatly appreciated. Many thanks to Bob VK5MM, who has maintained the transmitters over the years. Dave VK5CK and myself now take care of the task. Our thanks also to the staff of ADS7 who keep a benevolent eye upon the equipment.

Mark VK5AVQ

Footnote Mark VK5AVQ was a visitor to the Northern Branch General meeting on 11th of January this year. Thanks for the article Mark and perhaps QRM could provide something similar for use in S.A. Journal. 73 72KT



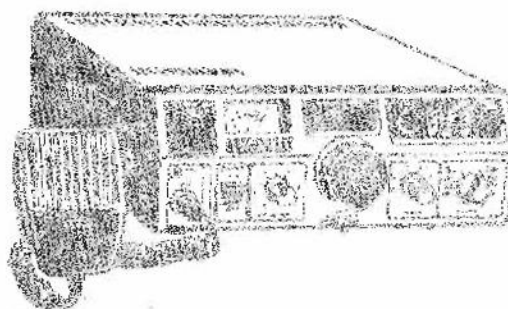
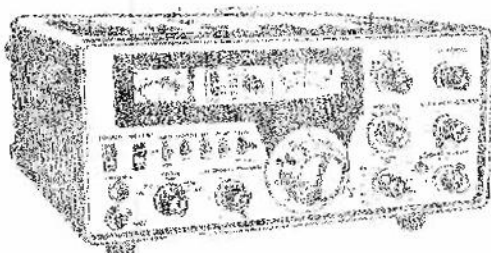
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AMATEUR EQUIPMENT AND ACCESSORIES



Forty Meter Folded Dipole and Other Bands

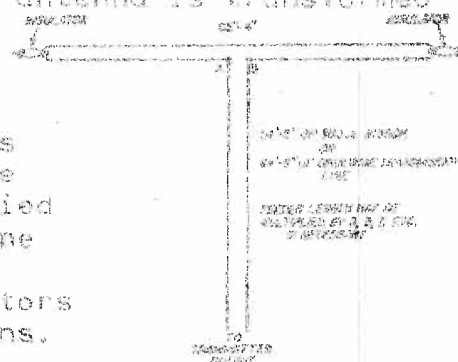
It is general knowledge that a forty metre halfwave folded dipole can be used on its third harmonic (15 metres) as a one and one half wavelength antenna, but it is not nearly as well known that it can also be used on eighty metres.

The small price to pay is that the transmission line needs to be a quarter wavelength long at eighty metres. If a quarter wavelength will not reach from antenna to TX then any ODD multiple will do.

If the antenna is well matched with 300 ohm line at both 40 and 15 metres, then any length that calculates to a quarter wave (or odd multiple) on 80 metres will not adversely affect the operation of the system, since the line will still remain "flat" at the two higher frequencies. On 80 metres however, the antenna becomes a high impedance double zepp fed half wave. This can best be observed by tracing the antenna from point A to point B on the diagram. This path is twice the length of the flat top portion and will perform as a bent antenna with the ends folded back. There is some loss due to cancellation of the fields, but the current intensity and the radiation, is far greater in the centre of the antenna than in the ends and the total efficiency is fairly good.

The high impedance at the points A and B would be a poor match to the 300 ohm feed line were it not for the property of a quarter wave section of transmission line to act as a transformer and change the impedance to the opposite of the termination. An open or unterminated quarter wave will reflect a short at the other end and a shorted length would have no effect! Therefore, if the proper length of feed line is chosen the very high impedance of the antenna is transformed to a relatively low one of the transmitter.

The formula for calculating the length of the half wave folded dipole is 468 divided by the frequency in MHz. This formula includes a factor for end capacity. The formula for the feed line is 246 divided by f MHz and multiplied by the velocity factor of the transmission line used, which for 300 ohm IV type ribbon is 0.82 but for open wire line with high grade separators it is 0.975. Both calculations are for feet/ins.



The entire antenna can be made from IV ribbon although the open wire line is less affected by weather. The connection at the centre of the antenna could be encased in epoxy or sandwiched between two pieces of perspex to provide strength. The antenna could be coupled directly to a tuning unit or by coax thru a 4:1 balun to the TX.

QSL BUREAU

There are about 400 unclaimed cards held at the Bureau for the following, a lot of which have been on hand for some time. Unless collected by the end of February they will be destroyed. A phone call to 44 2834 will save them.

VK7AG, DH, GJ, IR, LS, MJ, PH (about 100), RZ, SW, TA, TX, NAA, NAD, NAS, NCW (70), NDH, NED, NEX, NGE, NGH, NNH, NPY, NSW, ZIF (100), ZIS, ZJT

70 cm Beacon VK7RTW

The North West 432.475 MHz Beacon is temporarily removed from service due to technical problems. (shades of Red 3 H!!)

Subscriptions

All members subscriptions fall due on January 1st and should be paid by Feb 1st. While unfinancial members are likely to receive QRM for a few months, Amateur Radio magazine ceases in March. So please pay your sub promptly to P.O. Box 150 Torok, Vic. Notice that your A.R. address label now also indicates your branch : 02 for South, 03 North and 04 North West.

An application for reduced subscription (pensioner, student or family) should be directed to the Divisional Council, PO Box 1010 Launceston. Pensioners should include their pension number.

Annual Meeting

This year's meeting and dinner will be hosted by the Southern Branch on the 15th March at 2PM in Hobart. Notices of Motion should be forwarded to the Divisional Secretary, to arrive no later than 28 days prior to this date. Annual reports from Branches and State office beggars should be available for March QRM.

Council Elections

Nominations are called for Divisional Councillors. Our constitution allows for at least one from each Branch to be elected, and should a Novice Licence be nominated, then it allows for the election of at least one Novice.

Federal Councillors and alternate Federal Councillor positions are also to be filled. Nominations for these positions are to be received by the Secretary (PO Box 1010 Launceston) by the 16th Feb.

Licence Issue Delays

It seems the delays experienced in receiving exam results and station licences is an Australia-wide problem. Nothing can be achieved by chasing results via telephone as it seems all working is now done in Melbourne.

One improvement however has been made. If you live in Hobart and if the equipment listed on your Station application is uncomplicated (obviously within power limits) a call sign can be issued "over the counter" once your certificate of proficiency has been received. Novice applicants should ensure that full details of equipment mods are supplied with the application.

Council would like to hear from anyone experiencing difficulties with these procedures since P&T in Tasmania are keen to ensure that they operate as effectively as possible.

R.D. Contest

Congratulations to VK5 for their win. We made second place, thanks to all those who helped, but surely we can muster a little more wide spread support next year.

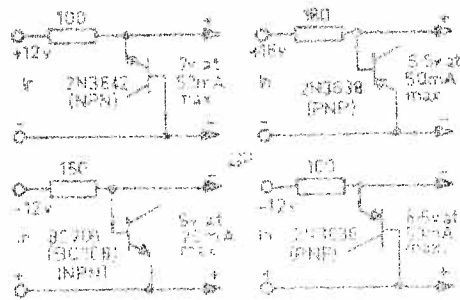
VK6 Novice Award

The West Australian Division offers an award to Novice amateurs to encourage CW operating. Twenty stations in all States of Australia (VK1 - 2) are to be contacted including (2) on CW in all other States but your own and (6) on CW in your own State. More details from the VK6 Divisional Secretary.

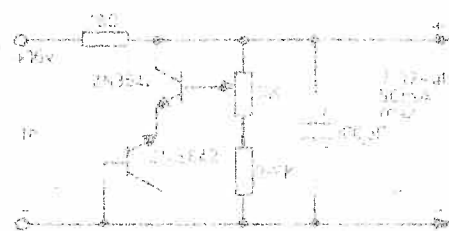
Federal Convention

One frequently hears comments such as "the WIA does'nt do anything about....." or similar, and I guess many of us are'nt too concerned about the administrative side of Amateur radio as it can be a highly satisfactory yet individualistic activity. However, there are bound to be many areas where innovation and enthusiasm can improve our hobby's organisational aspect. Of course you can offer your services to help or you can suggest ideas which can be discussed at a Federal level at the Convention on 25th to the 27th of April. It is hoped that a number of items to be aired will be notified in time to discuss them at our meeting on 17th March. However, if you have suggestions for Agenda items please let them be known.

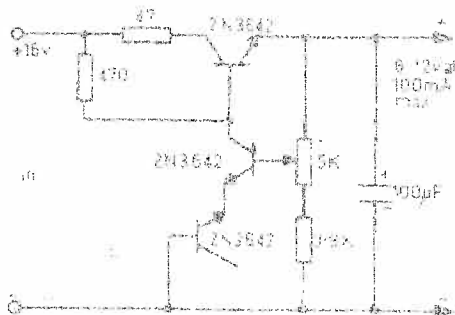
TRANSISTOR	ZENER VOLTAGE	DYNAMIC RESISTANCE	MAX. CURRENT	MAX. DISSIPATION
BC108-208	9	20 ohms	22mA	200mW
2N3642	7	6	70	500
2N3693	7	12	30	200
2N3563	6.5	15	30	200
2N3638	6.5	2	75	500
2N706	6.5	5	30	200



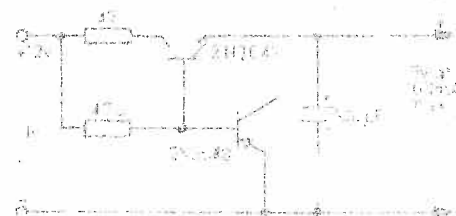
CIRCUITS 1 to 4 (SHUNT)



CIRCUIT 5 (SHUNT)

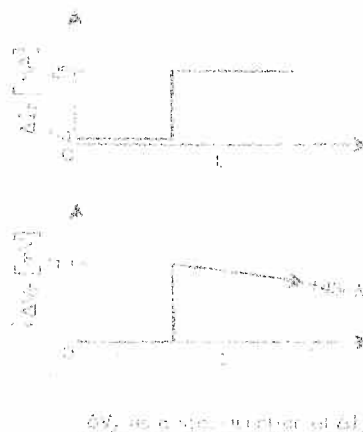
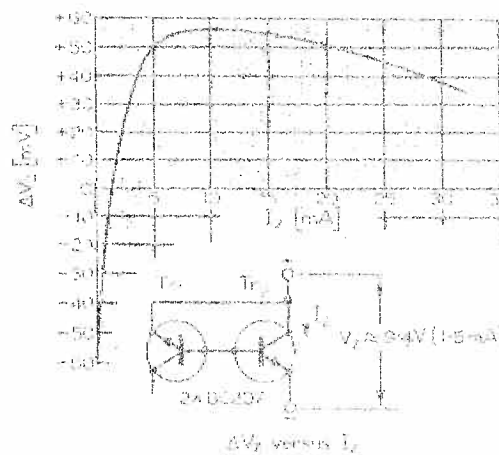


CIRCUIT 7 (SERIES)



CIRCUIT 6 (SERIES)

Comparative zener and "active zener" characteristics



Further examples and characteristics of synthetic zeners are shown in this article from Wireless World. The graphs show the good voltage stability of the active zener.

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