

APC NEWS



Sunset at McCrae. It doesn't get much better.

In this issue: Reports on Club AGM, ILLWE, Talks, & more



Kaye VK3FKDW and Dennis VK3BGS joined Ian VK3IFM and Gerard VK3GER for lunch at McCrae during the Clubs ILLWE activity

© All material in this magazine is subject to Australian Copyright Laws. Contact the editor if you wish to reproduce any of the contents.

CONTENTS

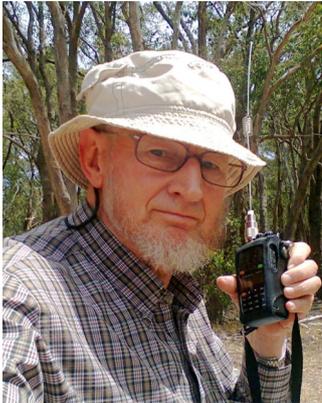
Item	Page
AGM Report	5
Antenna Myths	15
Arduino Group	28
August Talk—Donald Mackay	9
Club Meetings	40
Club Nets	39
Coming Activities and Meeting Speakers	36
Committee members	41
Events Calendar	33
Getting back into Amateur Radio #5	30
ILLW at McCrae	19
Jamboree on the Air	27
Join the Club	35
Meetings	39
Paying Subscriptions	36
Repeater Status	29
September Talk—FT8	16
The Editor's Desk	4
Trade Discounts	38
Wiring the Radio in the Car	22



**BUILT SOMETHING?
BEEN SOMEWHERE?
DONE SOMETHING
INTERESTING?**

Tell the Editor. He needs material for the next issue of APC News. Please include pictures too.
Email: vk3apc@wia.org.au

THE EDITORS DESK - Ron VK3AFW



Some good news; we have a Club President. Read the report on the AGM. Congratulations to all the elected committee members. It's now up to the membership to support these people.

If you can recruit a new member, or get a past member to rejoin that would be a great start to helping the Club.

Our Tuesday group numbers are down and need a boost. Joe and Julie's Electronics for kids is going extremely well and the Arduino Group is making great progress.

The Lighthouse Weekend (ILLWE) was a resounding success. What else should we be doing?

Tony VK3CAT is heading to France for some RnR and SOTA. Brian VK3MCD is still keeping up with the SOTA activations—he needs to keep busy to stay in the top 100 activators world wide. And I managed one after the ILLWE

73,
Ron,
VK3AFW

THE 2017 AGM REPORT



The biggest change was the election of a President, Lee VK3GK. Ken Millis VK3KIM was elected as vice President and Secretary. All other incumbents were re-elected.

Congratulations to all elected members.

The treasurer submitted a report which showed a small trading loss but nothing to be concerned about. A copy of the report can be obtained by emailing Brian VK3MCD at bmcdern@tpg.com.au.

The vice president for 2016-17 presented a report which follows.

Presidents Report, MDRC AGM, Friday 11th August 2017

I would like to thank the outgoing committee for their commitment and support throughout this last year.

A vote of thanks to all those in the background who continually help out at all the meetings and gatherings held by the club, events like our major hamfest, field day excursions, International Lighthouse Weekend, the scout muster held earlier in the year and a special thanks to Joe and Julie for their tireless efforts in promoting Amateur Radio to the younger fraternity, the future of ham radio. All our activities or projects need these helpers to continually make them a success.

The "Tuesday Group" numbers have been holding up, thanks to a few new members that have joined.

This years hamfest once again was another huge success, so the largest hamfest in VK3 is a title we can still claim. I heard a rumor that it went "as smooth as silk".....maybe that was because I was unable to attend as I was in the USA for the Dayton Hamvention.

Thanks goes to our members and friends that donated equipment that was sold at the "Club Table" as that revenue adds to our bank balance.

Education courses haven't been running this year as the applicant numbers are quite low, although Graeme and Lee assessed a few successful exams last year.

Presidents Report, MDRC AGM, Friday 11th August 2017 cont'd

The new MDRC website is up and running with continual tweaking by Cohen Lewis VK3HCL –it seems to be performing its job well.

Ron VK3AFW needs a round of applause for his continuing of the APC magazine with his ability to find interesting articles to publish as this is the glue that keeps the members informed and along with our guest speakers, which makes for a fun Friday night meeting.

The club shack had an overhaul earlier in the year with new feedlines installed. The non functioning Emotator rotator was replaced with a Yaesu G1000 from Strictly Ham (although tested ok and was rotating perfectly on the day of installation, it now seems to have developed an issue which will be resolved in the next month or so). The HF yagi was checked and was in working order. The Fritzel was checked and new 6m/2m/70cm/23cm vertical antennas were installed. This will enable the club shack to be fully operational for demonstrations and use for visitors and club events, contests etc.

Graeme has continued to manage the MDRC repeater site at "Mt Tip" in Berwick. The location gives significant coverage of SE suburbs and surrounds from Pakenham to Wonthaggi to the other side of the bay. 2m, 70cm and 23cm are covered with Dstar, analogue and a new digital mode repeater has been added. We really have quite a complement of equipment at the site.

Presidents Report, MDRC AGM, Friday 11th August 2017 cont'd

The incoming committee will have a few projects this year.

The remote radio station is still on the agenda, along with activating the Club Callsign VK3APC in some of the local VK contests.

Initial discussions have been made regarding a Birthday Celebration Luncheon or Dinner for MDRC.

73,

Lee Moyle
VK3GK

Outgoing Vice President,
new President,
MDRC

AUGUST TALK REPORT

Donald Mackay (1870 – 1958):

The Last of the Great Australian Explorers

Ken Millis VK3KIM gave the Club members an interesting and well researched illustrated talk on Friday 15th July 2017.

Mckay inherited a large successful pastoral enterprise at age 20 and was able to indulge in his passion for exploring. One for which he became well known was riding a bicycle around Australia, setting some records that held for many years and are still very respectable when compared to today's achievements.

Over the years he surveyed part of Papua, the Northern Territory, part of the Peterman ranges and took part in expeditions looking for pirate loot in the pacific.

AUGUST TALK REPORT cont'd



D. G. Mackay.
From State Library of Victoria

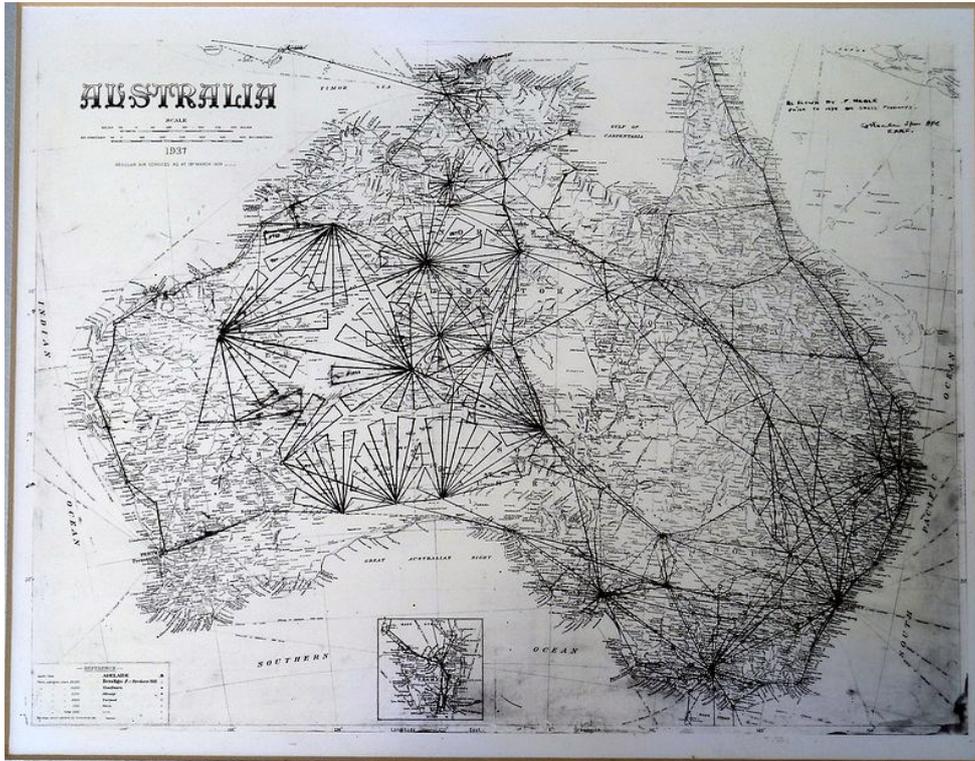
It wasn't until, in his 60's that he decided to use aircraft to undertake mapping of the vast areas of central and western Australia that had been rarely seen, let alone mapped by white men. Aerial surveying of the country was very limited at that stage.

The expeditions were well planned and the members carefully selected. Amongst them were Bob Buck, the man who later found Lasseter's body and Howard Kingsley Love of AR7 fame.

A radio expert who also had a pilot's licence, Kingsley Love VK3BM was responsible for receiving radio time signals from 3LO so as to set watches accurately. A 1 second error would result in about a half kilometre error on the map.

Radios were also used to keep in contact with a couple of other radio amateurs and the aircraft.

AUGUST TALK REPORT cont'd



The map shows Mackay's bike trip route and his aerial surveys. The fan shaped flight paths allowed efficient coverage of the countryside consistent with the need to return to the home base. The photo's were developed and printed on site to allow approximate maps to be drawn that evening. The accurate maps were done after returning home.

AUGUST TALK REPORT cont'd



A Lacowl 9—11 seater utility aircraft. They look a bit strange today but were quite capable. Landing on un-made strips was quite common. All that was required was a couple of hundred metres of open flat ground without large bushes

The aircraft used for most of the surveying were locally modified British aircraft based at Melbourne aerodrome on Coode Island. See <http://www.australiangeographic.com.au/topics/history-culture/2010/02/aviation-the-adventures-of-love-bird-and-diamond-bird> for more details.

AUGUST TALK REPORT cont'd



Aerial surveying became the norm for accurate mapping, with 3d imaging being used to map contours. By the 1990's this was computer aided but a skilled operator was still needed in the loop. 3D radar from Space Shuttle flights has enabled most of the earth's surface to be mapped in some detail and other satellites provide the detailed imaging for Google earth. Neither are better than the best aircraft surveys and on-ground surveying is still necessary for accurate reference points..

Left: Ken VK3KIM answering a question.

AUGUST TALK REPORT cont'd

The country surveyed was and still is difficult to access with vehicles encountering impassable sand dunes, rocky outcrops and sticky salt pans. Camels found the going hard and progress could be limited to a few miles in a day. The possibility of new grazing land was of interest and the maps were of great value to later mineral expeditions.

Lake Mackay, the second largest lake in Australia was named after the explorer.

MacKay's surveys covered more square kilometres than any other Australian explorer and completed our knowledge of the interior , all at his own expense. A remarkable man.

As with all good talks there was much follow-up research—in this case into the original Melbourne Airport at Elsternwick on the old Lehman swamp. But that's another tale.

ANTENNA MYTHS

Want to learn what are the common antenna myths?

Go to :

[http://www.moosedata.com/
K7FE_antenna_myths.pdf](http://www.moosedata.com/K7FE_antenna_myths.pdf)



“Running an all band 40 dB gain Myth here OM....”

SEPTEMBER TALK

Ron VK3AFW gave a presentation on FT8. Although only released 2 months ago in Beta format it is already the most popular mode in the World

This is a DX digital mode. A 13 character limit per over means it isn't great for rag chewing. But with poor conditions it has become popular as DX can be worked when even CW falls short by 8 dB or more.

The screen is similar to other JT modes, with a waterfall giving instant information about the band and a main screen for decodes and sent messages.

It is slow because it needs time to dig out the signal. Overs are 15 seconds each and QSO's can be completed in under 2 minutes. This seems to be fast enough for the average DX chaser.

Once a QSO has commenced the computer will send the right messages in sequence, which is pretty much mandatory given the operator has about a second to read the decode and hit the right message button.

SEPTEMBER TALK cont'd

Left is a recent screen shot of FT8 on 18 MHz.

Note the waterfall at the top where at least 12 different QSO's are in progress.

Zoom your view to see details more clearly. The highlighted lines are stations in the US and Japan calling CQ. Note the preformatted messages ready to send.

The screenshot displays the WSJT-X software interface. At the top, a waterfall plot shows frequency activity from 0 to 2400 kHz. Below it, the 'Band Activity' table lists active QSOs with columns for UTC, dB, DT, Freq, and Message. Two entries are highlighted in blue: '231815 -11 0.7 1207 ~ CQ NA6MG DM04 ~U.S.A.' and '231830 -16 0.4 1694 ~ CQ W6SA DM26 ~U.S.A.'. The 'Rx Frequency' table is empty. The interface includes a 'Monitor' button, a frequency display showing '18.100 000', and a list of preformatted messages for transmission, such as '7L4IOU VK3APW QF22' and '7L4IOU VK3APW -13'. The status bar at the bottom indicates 'Receiving FT8' and 'Last Tx: 7L4IOU VK3APW QF22'.

UTC	dB	DT	Freq	Message
231815	-16	0.0	537	~ JH1CJY VK2AR RRR
231815	-16	0.0	603	~ KJBU K6SJT 73
231815	-4	-0.0	1014	~ R6GFJ JA8HK R-02
231815	-11	0.7	1207	~ CQ NA6MG DM04 ~U.S.A.
231815	-6	0.0	1465	~ CQ JH1PXH PM95 ~Japan
231815	-11	0.0	1856	~ 9M6XRO NA6L R-15

17m				
231830	-4	0.0	538	~ VK2AR JH1CJY 73
231830	-16	0.2	652	~ KB5TB NX6D CM97
231830	0	0.6	954	~ NX6D JA4DNC -14
231830	-17	0.6	1013	~ JA8HK R6GFJ -08
231830	-6	-1.0	1105	~ K6RLQ JG1ERW -12
231830	-16	0.1	1192	~ RWDLT W8AF EM99
231830	-16	0.4	1694	~ CQ W6SA DM26 ~U.S.A.

SEPTEMBER TALK cont'd

The whole FT8 sub-band is 2 kHz wide and can accommodate well over 100 QSO's as the mode requires less than 50 Hz. In VK the band is in what is nominally the SSB allocation on 160, 80 and 40 m, however it is covered by a footnote.

Ron said that 40, 30 and 20 m were the main DX bands with 80 m and 17 m and above throwing up some surprisingly good contacts.

The program and user info sheets can be downloaded from:

<https://www.physics.princeton.edu/pulsar/K1JT/wsjsx.html>

This is the WSJT-X home page. Scroll down to:

Candidate Release for WSJT-X Version 1.8.0-rc2

Download the version for your operating system.

Read the Notes. Surprisingly it helps if you know what to do and how to do it.

You will need to interface the rig and your computer. You can just use acoustic coupling—rig speaker to computer mike and computer speaker to rig mike just to get a feel for it.

ILLW at McCrae



This year Gerard VK3GER, Ian VK3IFM and Ron VK3AFW manned the Club station, arriving on site at 10 am and getting on air after lunch. They worked through into the evening with a break for a Pizza dinner, After Ian's classic egg bacon and muffin breakfast operations continued until lunch when as per tradition we packed up.

Above: Gerard VK3GER on 40 m

Ron detoured via Arthur's seat for a quick SOTA activation.

We had a number of visitors, some unfortunately turning up at 1 PM Sunday when we were loading the vehicles. On Saturday Graham VK3FGKE and grandson Recce dropped in for a

ILLW at McCrae cont'd

**Left: Ian VK3IFM
makes some adjust-
ments**

The weather started with a clearing shower on Saturday en-route and slowly got better. It was perfect on Sunday morning with hardly a breath of wind and a pod of dolphins lurching not far off shore to add to the view.



In spite of poor conditions a good number of lighthouses were worked and contact totals were good. Ron trialed the digital mode FT8 with some success, including a QSO into the US on 80 m with the 3 half-waves on 20 m dipole. See table on next page.

ILLW at McCrae cont'd

ILLW 2017 QSO SUMMARY						
Band	QSOs	Best DX	VK wkd	Light-houses	ILLW Ref	Comments
80 m	20	ZL2 SSB, K7 (Colorado) FT9	VK1, 2, 3, 5, 7	5	AU: 0009, 0012, 0027, 0031, 0049.	1 FT8
40 m	51	ZL6 SSB, F6, OH3, DL6, JT8	VK1, 2, 3, 5, 7	12	AU: 0006, 0007, 0012, 0018, 0021, 0028, 0032, 0036, 0046, 0069, NZ0006	7 FT8, all DX
20 m	28	ZL1, SSB KP3 (Caribbean) JT8	VK2, 3, 4, 5, 6.8	10	AU: 0004, 0008, 0014, 0036, 0046, 0055, 0069, NZ0003, NZ0012, NZ0020	16 FT8 QSO's, 14 DX
TOTALS						
2017	99			27	23 unique	22 DX
2016	87			36	28 unique	
2015	47			27		
2014	73				17 unique	

WIRING THE RADIO IN THE CAR

For about 3 months I have been mulling over fitting my FT857 in my relatively new vehicle. The plan was to fit a second radio battery and install the cabling as much out of sight as was reasonable and to do a workman like job, even if I had to read the instructions and think through my step by step process.

I had a delay getting the right battery cradle end even when I got one to fit there was still some hacksaw and drilling required. Eventually a battery was shoehorned into place. Now for the dc power wiring. I had read an article for CBers on cabling size and the guy had done a good job. So here is how I set about selecting the right size cable.

The transceiver requires 13.8 V +/- 15 %. That is 13.8 V +/- 2.07 V or 11.73 to 15.87 V. A standard Lead Acid battery voltage drops to 12 V as it discharges (75% discharged). You can discharge it further but I figured this is where I would stop. That gave me $12.0 - 11.73 = 0.27$ volts I could drop in the wiring. This wasn't looking good and I knew my previously used generous length of 25 A rated cable had been responsible for some crook signal reports. The rig voltage would have gone way below 11.7 V.

WIRING THE RADIO IN THE CAR cont'd

Further, unless I made a good bond to the chassis under the seat I would have to live with half that drop in each supply lead. That meant that at 22 A peak the maximum resistance I could have was $0.135/22 = 6.1$ milliohms per lead.

Here is the resistance budget, one wire only. Double for both leads.

Ah, golly, more than double my allowance. The heavy duty cable alone takes nearly all the allowance.

Item	Milliohms
Battery lug	1.0
2 m of 56 A rated cable	5.4
Break –out Box, 2 lugs	2.0
30 A fuse at 22 A	2.0
Distribution lead, 0.5 m 25 A rated	3.0
Anderson Pole connector	0.6
Yaesu Plug/socket	2.0
TOTAL	16.0

WIRING THE RADIO IN THE CAR cont'd

The 56 A cable is as large as I could get through the fire wall grommet, and that took some silicon lubricant and about 3 hours of hard cussing. There's no way I'm going to be able to fit anything with a bigger rating. By the way, cables get their rating from the maximum allowable temperature rise, not dc resistance as such.

The lug resistances are estimates and could be double or half my value. They are bolted down with 6 BA bolts. The fuse resistance was obtained from voltage drops published by various makers for 10 A and I have proportioned it and used ohms law. The resistance probably is not linear as the rated current is approached so I'm probably low by maybe as much as 50%.

The battery characteristics, cable resistances, fuse resistances and the Anderson pole connector resistances came from Jaycar and Altronics catalogues and open sources on the WWW.

The distribution lead is 25 A rated cable – the rig came with that on its connector and apart from shortening it I'm not meddling there (well not yet) even though it consumes half the allowance.

At 22A the two cable volt drop is $2 \times 22 \times 16 = 704$ mV. But I can only have 270 mV. 434 mV

WIRING THE RADIO IN THE CAR cont'd

So assuming I want to use 75% of the rated battery capacity I have to rethink the current drain. Indeed there is little wiggle room for engine off operation for more than say half an hour.

Initial measurements show 0.8 V drop from the battery to the rig, or 0.018 milliohm per lead which is 15% more than calculated, so I'm on the right track.

For the maximum voltage drop with a 12.0 V battery terminal voltage, the maximum current will thus be 7.5 A. This equates to somewhere about 20 watts output. Initially twice this could be run but as the battery discharges the power will need to be reduced to stop flat-topping and poor audio reports.

Now I know why those SOTA operators operating FT857's in the field only run 40 W out. It's not only to be able to use a small battery; it's about putting out a clean signal.

With the engine running of course there are no issues as the battery will be kept up around 13.8 V. And until the battery volts drop below 12.3 V full power can be used. For field day operations 20 watts is probably a good setting. I have an 80 AH radio battery and should be able to run 8 hours without stressing the battery or putting out a rotten signal, even when the battery isn't new.

Guess why so many battery powered field stations sound crook as the day wears on and why motor generators are popular.

WIRING THE RADIO IN THE CAR cont'd

The bottom line.

Don't use any cable rated at less than 56A for the battery to breakout box. Use 100 A rating if you can get it through the fire wall. (1 A per watt of output)

Don't use less than 25 A rated cable for equipment. Use double cables if possible

Do keep all leads as short as possible. I had planned to have the rig under the driver's seat but would have required nearly double the distribution cable length.

Do use an isolated radio battery to avoid being stuck. Don't run anything off the car battery if it consumes more than a couple of watts for a short time.

For 24 or 48 hour operation a motor generator is a better option than running the vehicle engine when stationary.

If you want the full 100 watts for a number of hours a motor generator is required.

Every milliohm saved in the wiring is a potential 7.2 watts more output.

VK3AFW

JAMBOREE ON THE AIR 2017



Coming up on 20,21,22
October.

The 60th JOTA.

Contact Murray Taylor to
volunteer.

0417 319 256

ARDUINO GROUP



Above: Two coders at work (David VK3JDA and Gerard VK3GEWR)

The group continues to meet on the Saturday after the Friday night meeting and the 4th Saturday of the month.

Joe VK3YSP assisted by Julie VK3FOWL continues to lead the group with new learning tasks each meeting.

Tone generators are the present project with square wave and PWM audio tone generators being compared for jitter, frequency accuracy and distortion after filtering.

Ron VK3AFW has tested an iambic keyer and hopes to box one up soon.

CLUB REPEATER CURRENT STATUS

VK3RMC Frequencies & Operating Status

Analogue	O/P	I/P	Pwr	Status
2 m	147.325 MHz	147.925 MHz	50 watt	Running.
70 cm	439.375 MHz 439.875 MHz	434.375 MHz 434.875 MHz	45 watt 25 watt	Running (DMR digital only) Running (IRLP enabled)
23 cm	1,273.600 MHz	1,293.600 MHz	TBA	No equipment – freq allocation only

D-star Digital	O/P	I/P	Pwr	Status
2 m	146.7625 MHz	146.1625 MHz	25 watts	Running (Gateway enabled)
70 cm	438.125 MHz	432.725 MHz	25 watt	Running (Gateway enabled)
23 cm	1,273.950 MHz	1,293.950 MHz	10 watt	Running (Gateway enabled)
23 cm	1,298.100 MHz	1,298.100 MHz	10 watt	Future upgrade 128K data

Extracts from

GETTING BACK INTO AMATEUR RADIO # 5

Online information about amateur radio



Hello, can you tell me what the attenuation of RG58CU is at 146 MHz please?

Geographically remote or can't get to a club meeting? Consider asking questions on an online forum or group. Those on grz.com and eham.net are the biggest but there are also country-based and specialist forums. They carry some great answers and informative discussions worth saving or bookmarking. [Facebook](https://www.facebook.com) groups are even more popular and exist for most aspects of amateur radio.

Social media has its dark side, though. Like the village market, participants comprise a cross-section of humanity, including know-it-alls, bigots, inarticulates, the short-fused, the backward and the socially challenged. Post count does not equal technical expertise. And technical expertise does not equal social maturity.

GETTING BACK INTO AMATEUR RADIO #5 cont'd

It's amazing how some who behave acceptably on the air or in person become abrasive trolls online. Nasty comments reflect more on the writer than their target. Ignore them and don't let them affect either you personally or your interest in radio.

At the same time, there are things that returnees (or newcomers) with questions can do to make the forum experience more pleasant for everyone, including those trying to help. These include:

- Use the forum's search function to find past discussions on a topic you wish to know more about. Your exact question may have already been answered.
- Search Google for the answer before asking. Again, there is a high chance others have had similar questions answered.
- Mention the prior steps you took to find an answer when you do ask a question. Replies will be better if respondents can see you've made an effort first.
- Specific questions get the best answers. A broad question like 'what is the best HF antenna' requires a book-length answer that no one will write. Whereas stating preferred bands and distances, available space and cost requirements should elicit useful answers.

GETTING BACK INTO AMATEUR RADIO #5 cont'd

- Respect readers' and respondents' time. This means writing clearly, spelling well and rereading before posting. Results will be better this way.

Without formal vetting of forum posts, answers received will vary in suitability and accuracy. A lot of nonsense is sprouted on antennas, for instance. Someone may claim something 'works' but their definition of this might be signals substantially weaker than those achieved with a common dipole. Other replies may be from perfectionists with professional or engineering backgrounds. Their responses may be technically correct but could prove discouraging if their recommendations exceed available space and budget. Consequently forums should supplement your reading rather than be your sole source of information.

Enjoyed the read? There's more in '*Getting back into Amateur Radio*' by Peter Parker VK3YE. It's available as an e-book through Amazon for \$6.99. Search the title on Amazon, like 'VK3YE Radio Books' on Facebook or visit vk3ye.com for more details.



Think about the readers before you post

EVENTS CALENDAR



CLUB EVENTS FOR 2017 Updated 27 August 2017

The following events are in addition to the normal weekly and monthly meetings. They include the events the Club normally undertakes plus all WIA sponsored events for which there are dates. If you know of an event that should be added please email the editor.

EVENTS CALENDAR

2 nd September	ARV Homebrew Group meets
8 th , 9 th , 10 th , 11 th September	ALARA Meet, Cairns.
10th September	SADARC Hamfest/Comms Day
Up to 30th September	VI4ALARA
7 th , 8 th October 0800 UTC Saturday to 0800 UTC Sunday	Oceana DX Contest, Phone.
14 th , 15 th October 0800 UTC Saturday to 0800 UTC Sunday	Oceana DX Contest, CW
20 th , 21 st , 22 nd October	Jamboree on the Air.
4 th November	ARV Homebrew Group meets
5 th November	Ballarat Amateur Radio Group Hamvention
10th, 11th, 13th November	KRMNP Activity weekend
2nd December	ARV Homebrew Group meets

Greyed out entries have passed.

LIKE TO JOIN US AT THE M&DRC?

**Annual Membership Fees are due 1st July.
Pro rata payment for new members in first year**

Schedule of Fees (Annual)	Amount
Joining Fee	Nil
Annual Membership Fee, standard	\$45.00
Student, Retiree, Pensioner Annual Membership Fee	\$40.00
Family Membership Fee	\$60.00
Honorary and Life Members Membership Fee	Nil

Send your application with cheque to:

The Secretary M&DRC
Box 58,
Highett,
Victoria
Australia 3190.

See next page for other options for renewal and other payments

PAYING SUBSCRIPTIONS

Paying by computer.

Go to **Internet Banking** on your computer and select the account from which you want to make the funds transfer. Do not select a Credit Card Account. In the “Transfer Money” screen enter the following.

- 1 In the ACCOUNT NAME box to which the funds are to be transferred, enter MOORABBIN AND DISTRICT RADIO CLUB INC
- 2 In the BSB box enter the number 033-385
- 3 In the ACCOUNT NUMBER box enter the number 77-4955
- 4 In the TRANSACTION DETAILS or ACCOUNT DESCRIPTION box enter your name or Call sign in uppercase.
- 5 Email the treasurer to advise of your payment. ***bmcderm@tpg.com.au***

Paying by cash over the counter at the bank

Go to a **Westpac bank** and fill out a deposit slip as below. Take this plus the necessary cash to the teller.

- 1 In the FOR CREDIT OF box enter MOORABBIN AND DISTRICT RADIO CLUB INC
- 2 In the BSB box enter the number 033-385
- 3 In the ACCOUNT NUMBER box enter the number 77-4955
- 4 In the TRANSACTION DETAILS or ACCOUNT DESCRIPTION box enter your name or Call sign in uppercase.
- 5 Collect the receipt and email the treasurer to confirm payment. ***bmcderm@tpg.com.au***

M&DRC MEETINGS, ACTIVITIES AND SPEAKER SCHEDULE 2017

MONTH	DATE	SPEAKER	DATE	ACTIVITY
September	Friday 8 th	FT8, the latest Craze. Ron VK3AFW	Saturday 9 th and 23 rd	Arduino Group meets.
October	Friday 13 th	Arduino show and tell. Various	Saturday 14 rd And 28 th	Arduino Group meets
November	Friday 13 th	TBA	Saturday 14 th and 25 th	Arduino Group meets
December	Friday 8 th	Christmas Party	Saturday 9 th	Arduino Group meets



there or



TRADE DISCOUNTS

FOR CLUB MEMBERS at ALTRONICS and JAYCAR.

Moorabbin and District Radio Club Inc. members can now buy over the counter at Trade prices from both **Altronics** and **Jaycar**. When making a purchase ask for Trade Discount and for **Altronics** quote the Club's Trade account number **32323** and your **call sign** or for **Jaycar** quote Customer Number **45400209**. **This is NOT a charge account so you use your money.**

Note: Minimum purchase of \$20 may apply.

Check out these companies at their websites.



<http://www.altronics.com.au>



**Get your Club photo ID
discount card NOW**

<http://www.jaycar.com.au>

CLUB NETS

VHF net.

Wednesdays: **146.550 MHz FM**
Starts at 20:00 (local)

HF net

Wednesdays: **3.566 MHz (± QRM) LSB.**
Starts at 20:30 (local).

Note: this is in recess but do feel free to come on and call.

Drive Time net

Week days: **146.550 MHz FM**
Starts at about 16:40 (local)

Please drop in and join the Nets and catch up on the latest happenings around the Club.



D- STAR repeaters are now operational.

For more information about D-STAR go to the Club's web page
www.mdrc.org.au
click on the link to Susan VK3ANZ's Newbies Guide to Using D-STAR

CLUB MEETINGS

Formal Meeting.
*Second Friday night of the
month, 8:00 PM and*

Informal Meeting.
*Fourth Saturday morning of the
month 10:00 AM*

**Check the web site and the
weekly Club nets for the latest
doings.**



COFFEE GROUP.

**Every Tuesday morning -
10:00 AM to 11 AM.**

Retired? Come along, swap
yarns, bits of gear and info or
get helpful advice all with a bis-
cuit and a cuppa.

**Visitors are always
welcome.**

**Free disposal items for
financial members at most
meetings**

COMMITTEE MEMBERS AND OFFICE BEARERS

President:	Lee VK3GK	
Vice President:	Ken VK3KIM	
Secretary:	Ken VK3KIM	millisk@hotmail.com
Treasurer:	Brian VK3MCD	bmcderm@tpg.com.au
Committee members:	Gerard VK3GER	
	Graeme VK3GL	
	Mike VK3FRTM	
Combined Clubs Reps:	Ian VK3IFM and Ken VK3KIM	
Publicity Officer	Kaye VK3FKDW	
Repeaters	Graeme VK3GL	
Webmaster:	Cohen VK3HCL	
Museum Officer	Colin VK3UDC	
Speaker schedule	Gerard VK3GER & Ron VK3AFW	
Education and Training	Graeme VK3GL	
Station Officer:	Tony VK3CAT	
QSL Cards	Denis VK3BGS	
Librarian:	Ben VK3FBCN	
Magazine Editor:	Ron VK3AFW	vk3afw@optusnet.com.au
Assistant Editor:	Cohen VK3HCL	