

VK3AWS



WANSARC NEWS

May 2008

Western and Northern Suburbs Amateur Radio Club
(WANSARC)
Incorporated in Victoria
A7611S

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A WIA Affiliated club

News and views from the Western and Northern Suburbs Amateur Radio Club VK3AWS—MAY 2008



Now don't try this at home! Many amateurs in Melbourne recently lost power for significant periods due to, allegedly, one in one hundred year storms.

Never one to be backward in coming forward and with more than a hint of technical expertise, Dallas VK3EB decided to check his local mains power after blackouts to see and "feel" power restored.

Needless to say by the look on his face, all was well and power had been restored! Phew! How excited is Dallas!

Whether the weather is fine, Whether the weather be not, Whether the weather be cold, Whether the weather be hot, We'll weather the weather, Whatever the weather, Whether we like it or not!

NEXT MEETING MAY 2 2008

'Tis AUCTION time at WAN-SARC this month, with a range of items for the bidding. So bring along your shillings and pence (what are they, you say?) and have yourselves a bargain.

The meeting will be held at the usual spot, NMIT St. Georges Road, Preston, Building K starting at 1930 hours local time.

Inside this issue:

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PSK31 by Peter VK6YSF formerly VK3YSF

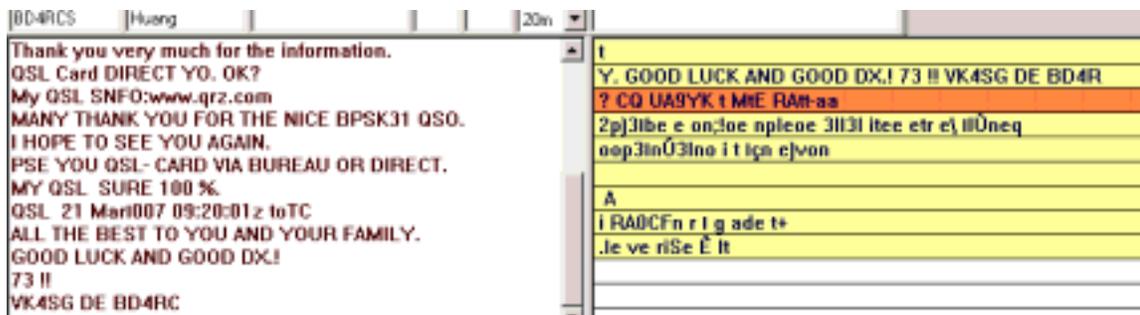
Part 2 of a 2 part article.

Up to twelve PSK transmissions can be monitored simultaneously (4) in a scrolling fashion. Selecting anyone of these scrolling channels will populate the main receive screen (3) with entire content from when monitoring began and align the red diamond at the appropriate position on the waterfall.

The scrolling channel screen may also be set up to recognize various strings of characters and upon recognizing that string highlight the channel. For example I have set it up to alert me to any transmission that has CQ in it and highlight that channel with an orange background or my call sign with a yellow background.

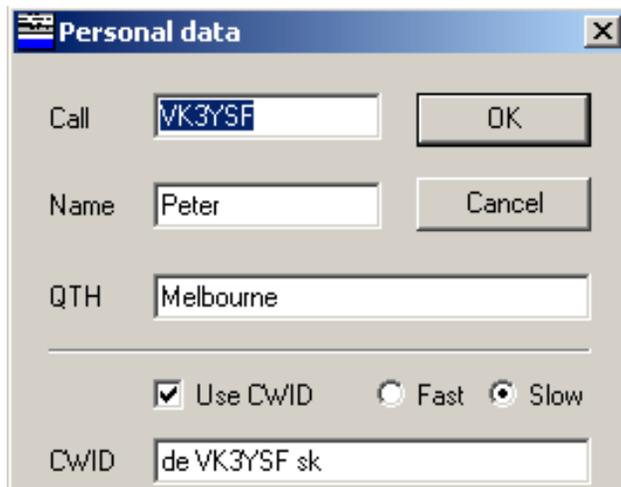
A small vector scope (2) will help identify the transmission type and the quality of the transmission.

To contact a station on one of the scrolling channel rows (4), just click anywhere on the row and then double-click on the call-sign in the single channel window (3) to capture that call sign and use it with the macros and log.



Screen (5) is for transmit text either directly key in or dumped in from one or more of the macros along the top of the screen (6)

Macros are an integral function of DigiPan and the first thing that is needed is to set up your personal data as a number of the commonly used macros will refer to this information.

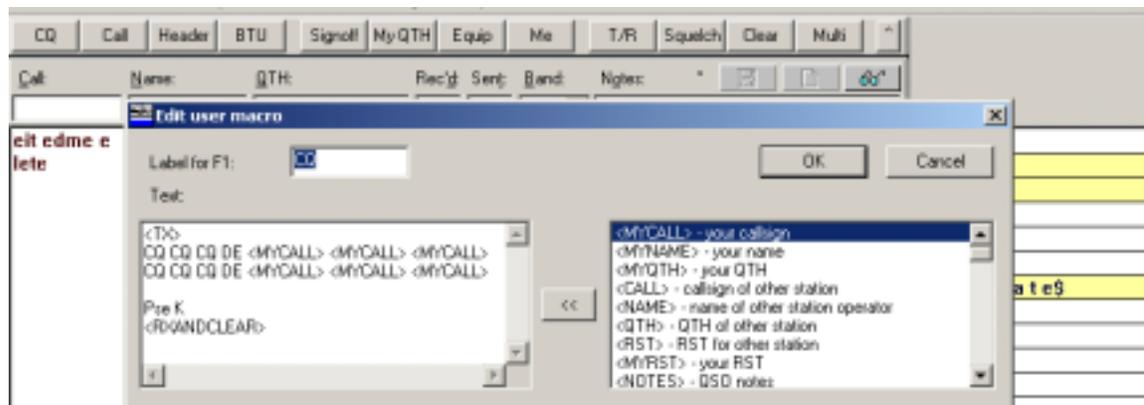


Pre-loaded macros of commonly used text such as CQ, name, location, station equipment etc can reduce the amount of typing. Commonly used in contests or working foreign station where English is perhaps not the first language.

DigiPan contains a macro language and 24 Macro keys, each of which is associated with one of the Function keys. Twelve are associated with F1 through F12 and another twelve associated with CTRL-F1 through CTRL-F12. Right mouse key allows the editing of the macro. The below screen dump shows the example of the CQ macro button after the right mouse button is keyed. First is the macro button label (CQ), below the label is the text box. Any text in this box will

populate the text to be transmitted when the macro is activated. To the right of the text box is the selection of macros.

The below example shows the CQ macro button which when keyed will first detect the <TX> macro in the text box and key on the transmitter. Transmit the CQ CQ CQ text then detect the <MYCALL> macro and insert the call sign from the personal data, continue with the rest of the message and finally detect the <RXANDCLEAR> macro, un-keying the transmitter returning to receive and clearing the text from the to be transmitted text box on the main screen.



My count shows that there are more than 50 macros that may assist in the operation of the DigiPan package. The eight below are some of the more straight forward examples!

- <TX>** Places DigiPan in Transmit mode
- <RX>** Places DigiPan in Receive mode
- <CALL>** The remote station's call
- <MYCALL>** The Call entered in DigiPan's Personal Data dialog
- <MYNAME>** The Name entered in DigiPan's Personal Data dialog
- <NAME>** The Name of the remote station
- <MYQTH>** The QTH entered in DigiPan's Personal Data dialog
- <QTH>** The QTH of the other station

DigiPan can be downloaded from <http://www.digipan.net/>

Connection

This has been covered in the SSTV article, but it is important so hear it is again!

The interface between the radio equipment and the computer is very straight forward. The audio output and input from the radio can be directly plugged into the relevant input and output of the computer's sound card. While many operators have had success with hard connection method I have chosen to use isolation transformers to ensure that stray R.F. can not find its way into unwanted areas by way of ground loops.

Feeding the signal into the microphone socket of the transceiver will require a substantial attenuation of the PSK31 generated signal to prevent over driving the transmitter. This can be achieved by feeding the signal via a simple resistor network and fine tuning with the transceiver mic gain while monitoring the RF power level.

A search of the internet will find a large range of circuits to achieve the interface between computer sound card and the transceiver. There are also a number of commercial interfaces available for the task.

Also see my website for details of my transceiver to computer sound card interface:

<http://members.optushome.com.au/vk6ysf/vk6ysf/scits430s.htm>

The critical interface issue to watch for when transmitting is over driving the transmitter which will result in a lot of adjacent channel interference and possibly damage to the transmitter.

Duty Cycle

The PSK31 generated signal is a continuous phase modulated tone causing the transmitter to work hard. Therefore it is recommended that the transmit power be wound back to around twenty watts for the average 100W HF SSB transceiver or to about the AM rating of the transceiver.

Operating

Spend a bit of time listening (Watching) to get a handle on the operating practices, if you have used RTTY or even CW before many of the abbreviations will be familiar.

Something that is cute about the real time keyboard to keyboard contact is that if you type out a spelling mistake and instinctively back space and retype the word that is exactly what happens on the screen of the station receiving the text. Everybody does it!

PSK31 is a fantastic addition to the arsenal of radio communication modes particularly when band conditions are less than optimum.

73s

Peter Miles VK6YSF

vk6ysf@arrl.net

<http://members.optushome.com.au/vk6ysf/vk6ysf/main.htm>

Congratulations to Peter on another excellent article—thanks on behalf of WANSARC—Mark VK3PI

Spectrum reviews underway from Amateur Radio Victoria

The top end of the 70cm band and the 6-metre band are included in two wide sweeping consultation papers just released by the Australian Communications and Media Authority (ACMA). One of the documents 'Spectrum Options: 403 – 520 MHz' looks at addressing increasing pressure from industry and users of the band to increase their access to it for future communications needs.

The 70cm band, which the Amateur Service shares on a secondary basis primarily with Defence, is virtually 430-450 MHz after 420-430 MHz was withdrawn in some states for use by government emergency services. Reference is made to the Amateur Service only having 430-440 MHz in the United States and Europe.

The ACMA review includes 440-450 MHz which it describes as having 'relatively limited use by any service, and its major use is by the Amateur Service for repeater links and television transmissions.' The ACMA has under consideration the increased use by land mobile systems of 440-450 MHz.

The ACMA acknowledges the value of the Amateur Service in "promoting self training, intercommunication and technical investigations and its role in providing backup emergency communications at times.' It continues, 'nevertheless the demand for spectrum for the land mobile service is significant and may be a more efficient use of this spectrum'.

A similar approach as that taken to 420-430 MHz could apply to 440-450 MHz, with amateur access prohibited only in those geographic areas where land mobile systems are operated on those frequencies.

The 56-page paper also raises a range of matters for consultation including digitalisation, reduced bandwidth, time-sharing, spectrum pricing and a possible class licence for low power single channel UHF channels in the land mobile spectrum. The second paper 'Five-year Spectrum Outlook 2009-2014' also includes matters of interest to the amateur radio and CB radio communities.

The papers can be found on the ACMA website <http://www.acma.gov.au/WEB/HOME/PAGE/PC=HOME> or on the club website at www.wansarc.org.au

My Icom IC-91AD D-Star Hand Held by Graeme VK3PGK



Some of you are familiar with this radio, there are others out there that have not yet had the pleasure of operating the IC-91AD .

It is a dual band 2 metre/70 cm hand held, dual mode analogue/digital and dual receive with 5 watts output on high power and 0.5 watts on low power. The supplied battery pack is a Lithium-ion 7.4 volt 1300mAh which takes about 5 hours to charge, but being a bit impatient I ended up purchasing a drop in quick charger which takes 2.5 hours for a full charge. I found that the battery pack lasts only a few hours of heavy use so I purchased a second battery as a back up.

There is a wide range of accessories available for the IC-91AD of which I will not list here as there are many, but all are available locally. As stated earlier the radio covers both 2m/70cm, 144-148, 420-450 MHz (modes FM and DV) transmit with 1300 memories available to store your favourite frequencies. It has the ability to transmit text messaging and with a GPS receiver connected it can transmit your location (may not be a good thing if you have an XYL who is also an amateur). It also has a wide band receiver with frequency coverage of 0.5 – 999 MHz. Modes on receive are FM, AM, WFM and DV (Digital Voice) which gives you a very wide range of listening options.

I found that this unit is very easy to program unlike one of Icom`s other D-Star units namely the ID-800H, but that is another story for a later article. I had no problem programming all the necessary frequencies, repeater offsets, and tones (DTMF and CTCSS) for the standard repeaters and digital data which is required to access the digital repeaters. If you wish to make programming even easier the software and cable that is available makes it a breeze. The 124 page manual is very easy to read and use as it has illustrations for dummies like me and once I did program the radio I didn't have to refer to it too much after that.

I have many hand held radios at my disposal but have not used them near as much as this one because it is so enjoyable to use, the audio is the best I have heard in any hand held both on analogue and digital even in a noisy environment. Without looking at the manual the sensitivity of the receiver seems to be good as I was picking up some strong signals on simplex up to 15 Kilometres away but not able to get back to them unfortunately. The stations I have spoken to have reported my audio quality both in analogue and digital modes as excellent. The unit is housed in a fairly rugged case of high impact plastic on an aluminium frame (yes I did look inside) and has a large screen with plenty of information to keep you entertained, although I found I did have to put on my reading glasses in low light situations and the small buttons on the front panel caused me a few problems with my stubby fingers. I have also picked up a Nagoya dual band antenna on Ebay for this unit which is stated at 3.0db gain which is 30cm long and is very flexible which makes it handy when bush walking under low lying trees and it seems to work a little better than the supplied antenna.

Also a speaker microphone is a must if you wish to read the data that scrolls across the screen when transmitting and receiving. Icom have since released another version of this radio the IC-92AD which is water proof for those rainy field days, and has an optional speaker microphone that has a built in GPS receiver, this particular microphone cannot be used on the IC-91AD. There are many other great features of the IC-91AD that I have not mentioned here but I have covered most of the basics that interest most people and think personally that you couldn't at this stage do much better than one of these, the price might be a stumbling block for some at around \$700.

If anyone has any doubts about buying a D-Star radio at this stage, just think that in the last 6 months we in Melbourne now have 5 operational D-Star repeaters, one on 2 metres, two on 70 cm and two on 23 cm (one 23cm is data only) with one 2 metre and two 23 cm soon to go on line and one 70cm now operating in Ballarat as well. All other capital cities have or will have operational D-Star repeaters by the end of the year except for Hobart. **Yes I am a fan of D-Star.** More information on D-Star radios and D-Star in general can be found on www.dstar.org.au **73 de Graeme VK3PGK**

WANSARC May 2, 2008 MEETING—AUCTION NIGHT

This coming Friday night is AUCTION night, in memory of Hal VK3EKF, who passed away earlier this year.

By Friday members on email and “snail mail” should have received a list of equipment for auction, with all proceeds to be given to Hal’s XYL, Alva.

Please bring along your hard earned “sheckles” and let’s have some fun with the auction and at the same time support Alva.

Note also that auction bids will be accepted from **MEMBERS OF WANSARC** only.

Members are encouraged to bring along other items for **AUCTION or sale**—please contact Mark VK3PI prior to the auction commencing so that your equipment sale wishes can be slotted into the evenings proceedings.

The meeting will commence promptly at 1930 hours and the order of auction will be as per the distributed list, followed by other member items.

Look forward to seeing a healthy roll up of members for this night—NMIT, St. Georges Road, Preston, Building K with parking at the rear.

ShackChat

Recently I caught up with one of our new, enthusiast members, in Chris VK3HGX. Chris hails from downtown Richmond and is the one on our club net with the excellent broadcast audio. Bottom left is a shot of his microphone system—note the professional “anti pop” screen. Antennae consist of a homebrew open wire fed system for HF and a vertical for VHF. Chris is currently swotting for his licence upgrade, so if Chris gives you ahoj for some extra knowledge, lend a hand. Let’s face it, old rockers

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have to stick together! Nothing like Rock and Soul, and Chris has plenty of soul when it comes to supporting WANSARC and our members. So keep up the good work Chris and look forward to hearing you on the next net.....in the near future with a brand new call-sign!!



BITS AND PIECES

Alan, VK3SM, has been on the sick list of late so our best wishes to Alan for a speedy recovery. Caught up with former members, Len VK3BYE recently and he is well at 81 years of age. Len has donated some books and gear to the club which will make its way to a forthcoming meeting.

Thanks to one of our members for the following feedback (you know who you are!) - *Just a thank you for your efforts with the newsletter. Most enjoyable as always—your sense of humour and good spirit really add to the great articles. That quote from Dallas VK3EB of “we won, we lost, we dunno—who cares we had fun!” was a goodie. It is also great to see the effort from members with their articles.*

Your comments are really appreciated—let’s call you **Dave**.....the newsletter is hopefully about WANSARC, for WANSARC and by WANSARC members! Keep those articles coming.





GET TO IT !!!!

DO YOU HAVE INFORMATION OR AN ARTICLE YOU WANT TO SHARE WITH MEMBERS?

Why not write it up for the magazine in word format, with pictures, and send to the club:

**WANSARC, PO Box 336, Reservoir 3073.
or via email to vk3pi@optusnet.com.au**

It's your magazine!!

WHAT ABOUT THIS ? Contributions from members

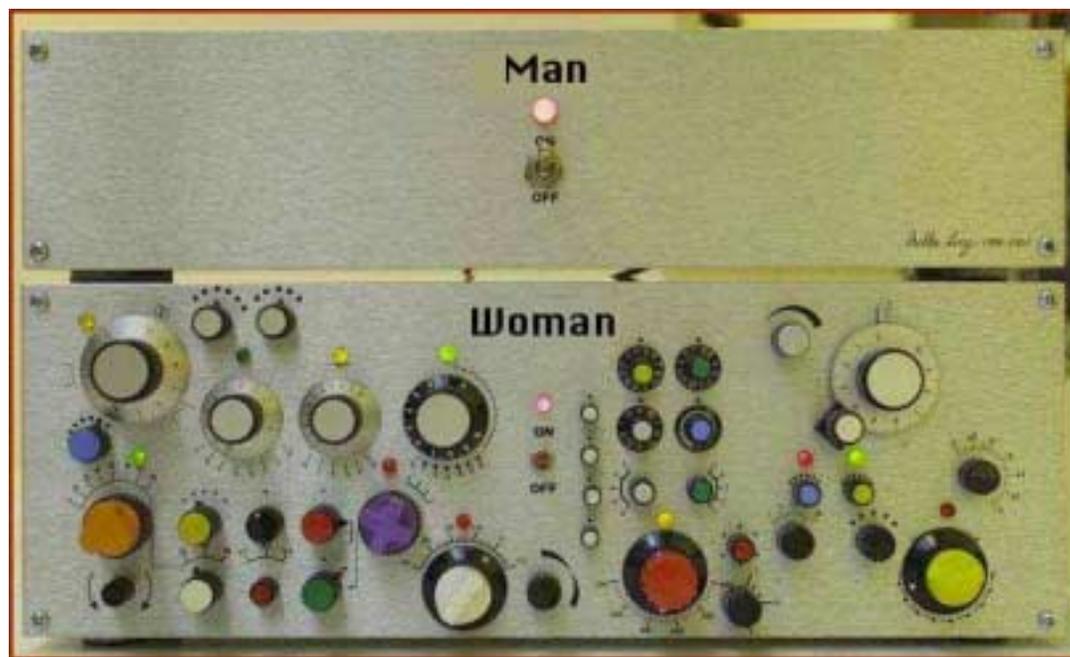
MURPHY'S LESSER KNOWN LAWS

From Bob VK3EL

1. Light travels faster than sound. This is why some people appear bright until you hear them speak.
2. Change is inevitable, except from a vending machine.
3. Those who live by the sword get shot by those who don't.
4. Nothing is foolproof to a sufficiently talented fool.
5. The 50-50-90 rule: Anytime you have a 50-50 chance of getting something right, there's a 90% probability you'll get it wrong .
6. If you lined up all the cars in the world end to end, someone would be stupid enough to try to pass them, five or six at a time, on a hill, in the fog.
7. The things that come to those who wait will be the scraggly junk left by those who got there first.
8. The shin bone is a device for finding furniture in a dark room.
9. A fine is a tax for doing wrong. A tax is a fine for doing well.
10. When you go into court, you are putting yourself into the hands of 12 people who weren't smart enough to get out of jury duty.

DIFFERENCE BETWEEN MAN AND WOMEN

From Graeme VK3PGK



Your magazine contributors this month include—

Dallas VK3EB, Peter VK6YSF, Graeme VK3PGK,

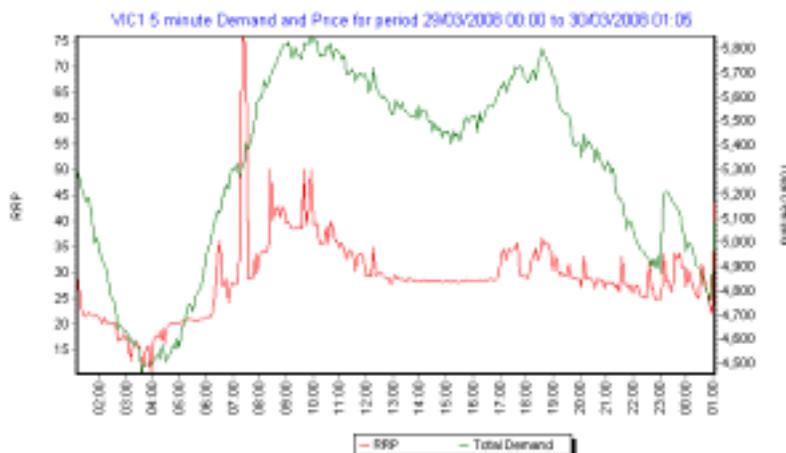
Thanks folks de Mark VK3PI, Editor/Producer.

Remember "Earth Hour" last month—yes, before the power outages. Well Peter VK3YSF, who works in the power game, has supplied some interesting stats for Victoria during the "EarthHour" - seems we used more energy than was saved. For more information have a look at:

<http://www.nemmco.com.au/home.htm>

EARTH HOUR—HMMMMMM?

From Peter VK6YSF





WANSARC is at
www.wansarc.org.au
Or www.wansarc.org

MEMBER SPOTLIGHT



“What do you mean you don’t use PSK31?” says Andrew Hudson Miles just after birth to proud parents Colleen and Peter VK6YSF. “My Dad swears by it and so should you (hmmm, am I allowed to swear at this age?” Congratulations Colleen and Peter from all at WANSARC.....time to build the shack now!!!!

WANSARC VK3AWS

PRESIDENT: Graeme McDiarmid VK3NE vk3ne@wia.org.au

SECRETARY: Mark Stephenson VK3PI Telephone: 0400 443 218
vk3pi@optusnet.com.au

All correspondence to be addressed to the **SECRETARY: PO Box 336**

RESERVOIR 3073

WANSARC CLUB PROFILE

History

The Western and Northern Suburbs Amateur Radio Club (WANSARC) was first formed in 1969 and since then has served the needs and interests of amateur radio operators, short wave listeners and those interested in hobby radio and electronics. The club is not gender specific, having both female and male members. Members come from all walks of life with a mix of experience, young and mature, novice and technical. The most important aspect of the club is the willingness of all members to share their knowledge for the benefit of others. Members mainly reside in the west and north of Melbourne; however membership is encouraged from all interested.

Meetings

Building K, Northern Metropolitan Institute of Technology (NMIT), St. Georges Road, Preston (Western side between Bell Street and Cramer Street) Melway 18 E12 *PARKING at NMIT- Members please note that parking adjacent to the club room building K is illegal and NMIT staff WILL book any cars which are parked in that area. ALL members must park cars in the main car park to the WEST of building K. Just look for vehicles with lots of aerials!* Meetings held on the 1st Friday of each month (excluding January) commencing at 7.30pm local time.

Talk in on 146.450MHz FM—call club station VK3AWS.

Benefits

Free technology and related presentations, sponsored construction activities, discounted (and sometimes free) equipment, network of like minded radio and electronics enthusiasts, excellent club facilities and environment plus an informative monthly newsletter for members to post articles, news, classifieds for all radio, test equipment, etc, featuring Amateur Radio news from WANSARC, WIA, ACMA, Melbourne Clubs, VK and Worldwide.

Club Nets

146.450MHz FM each Tuesday evening commencing 7.30pm local time. Also monitor 28.470MHz on 10 metres USB.

More Information: **Website:** www.wansarc.org.au **Email:** wansarc@wia.org.au

Postal: WANSARC PO Box 336 RESERVOIR 3073

Next meeting Friday May 2, 2008

AT NMIT Building K, 7.30pm

If not delivered within 7 days, please return to WANSARC, PO Box 336, Reservoir, 3073

**Australia Post
stamp here**

TO: