# A C R E M - N S W

**AUSTRALIAN CITIZENS RADIO EMERGENCY MONITORS - NEW SOUTH WALES**

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***Our Ref:*** S05-ACA0101
***Your Ref:***

21st January 2005

Ms Maureen Cahill
Executive Manager
Communications Operations and Service Group
Australian Communications Authority
PO Box 78

BELCONNEN ACT 2616

Dear Ms Cahill

**RE: CBRS EQUIPMENT**

Please find attached a submission from our organisation regarding possible changes to requirements for CBRS equipment type-approval.

We have written this submission due to an increasing number of stations on the UHF CBRS band causing harmful interference to the emergency channels and 5/35 emergency repeaters, primarily because they are unaware that the emergency channels exist or that they are indeed using CB frequencies. This problem was particularly highlighted following a death in Queensland several months ago when it took some **40 minutes** before an emergency call regarding a serious motor vehicle accident could be received due to the amount of accidental, and deliberate, interference on the emergency repeater.

Our submission addresses a number of issues, so we trust you will be able to pass copies to other ACA groups as appropriate, however the primary purpose is to seek changes to the type approval criteria that would require manufacturers attach labelling, and print appropriate information in the user manual, as part of the type approval process rather than voluntarily. This is seen as an effective and affordable method of ensuring new users are aware of the emergency channels, and that legislation exists governing use of the CB bands in Australia.

It is hoped that these measures, plus other proposals described in the submission, will help to ensure the CBRS emergency channels are available for use during an emergency, and that a repeat of the Queensland incident does not occur. Our concerns are that unless action is taken immediately to remedy the growing problems, further deaths will occur. What we seek in this submission is the assistance of the governing agency, the ACA, to instigate changes that will assist the band with the task of 'self-regulation', a concept that is presently unrealistic. We believe that the ACA has both a

legislative and moral responsibility to do what it can to help remedy these problems especially given the primary concerns are regarding frequencies reserved by legislation for emergency use only.

This submission, although composed by this organisation, has been considered by the Australian Association of Citizens and Band Radio Operators (ACBRO), who as you will know represents the interests of the Australian CB operators. After considering the contents of the submission the ACBRO Committee have given their support. We have also sought the assistance of Emergency Communications Operators in other parts of Australia to ensure we were not only addressing the problems of one specific region.

I trust you, and other relevant ACA groups, will give this submission due consideration along with the concerns raised. We would be pleased to discuss this further with the ACA if deemed necessary or desirable.

Thank you.

Yours Sincerely

**Martin Howells (VK2UMJ)**
**State Coordinator**
**A C R E M – NSW**

CC Executive Manager, Australian Communications Authority.
Minister for Communications, Information Technology and the Arts.
Department of Communications, Information Technology and the Arts.
Uniden Australia.
Standard Communications (GME Electrophone).
Icom (Australia)
ACBRO Inc.


# Australian Citizens Radio Emergency Monitors
# New South Wales

## Submission to the
## Australian Communications Authority
## regarding changes to
## Citizens Band Radio Service
## equipment labelling requirements

**A.C.R.E.M. – NSW**
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**January 2005**

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# Introduction

The Citizens Band Radio Service (CBRS) has been a popular and affordable method for ordinary citizens to keep in touch since the service was first legalised in July 1977. Presently the CBRS consists of frequency allocations in two bands – the 27MHz band (40 channels from 26.965MHz to 27.405MHz, spaced 10kHz apart), and the UHF band (40 channels from 476.425MHz to 477.400MHz, spaced 25kHz apart). The UHF band has become extremely popular amongst both hobbyists and commercial operators, the latter utilising the now 'no licence fee' service as a means of providing communications without the expense involved in the use of commercial frequency allocations. Since legalisation in Australia certain channels have been allocated by legislation for specific uses. Among these are the CBRS Emergency Channels (Ch.9 on 27MHz and Chnls. 5 and 35 on UHF). These channels have always been reserved by legislation for use by any station requiring emergency assistance, and they are often monitored by volunteers around Australia. Other channels allocated by law include calling channels – channels 11 and 16 on 27MHz and channel 11 on UHF.

Initially each station required a licence to operate on the CBRS band, and as such they were supplied with documentation to show them what channels were allocated for specific purposes. Even during the times when almost half of the CBRS stations in Australia were unlicensed, knowledge of the various legally allocated channels was still widespread and generally observed by all operators. With the introduction of the ***Citizens Band Radio Stations Class Licence*** in 1994 documentation from the Government agency responsible for radiocommunications was no longer issued, and many new operators with no prior CBRS experience commenced operations with no knowledge of channel uses or allocations. This presented new problems for the CBRS band, especially when new operators would select the emergency channel as a chat channel, unaware of its allocation.

This situation has slowly worsened over the years. Recent popularity of the cheap 40 channel UHF hand-helds, now available at numerous retailers for under $50/pair, has seen the number of children and travellers using the UHF CBRS frequencies increase dramatically. Unfortunately most often these radios are sold simply as "Personal 40 channel UHF radio" with no mention of the fact that they are, indeed, CB radios and, more disturbingly, often no mention of the CBRS Class Licence or the relevant channel allocations specified in that document. The result is an ever increasing number of users utilising inappropriate channels, such as repeater inputs, call channels and the two UHF emergency channels, for regular contact. Where there is a 5/35 emergency repeater in operation, this utilisation of channel 35, even with the extremely low power units, can cause significant problems and totally block access to the emergency repeater.

# The Class Licence

The ***'Radiocommunications (Citizens Band Radio Stations) Class Licence'*** ('the Class Licence') was first introduced in 1994 to replace individual Apparatus Licence requirements for CB stations. The Class Licence is issued under the provisions of subsection 132 (1) and 135 of the *Radiocommunications Act 1992* and specifies operating parameters and conditions applicable to stations operating on frequencies allocated to the Citizens Band Radio Service. The Class Licence in force at this time is the ***Radiocommunications (Citizens Band Radio Stations) Class Licence 2002***.

Section 6 of the Class Licence specifies:

"**6 Conditions — general**

A person must not:

(a) except in an emergency — operate a CB station on:

(i) carrier frequency 27.065 megahertz; or

(ii) carrier frequency 476.525 megahertz; or

(iii) carrier frequency 477.275 megahertz; or"

The frequencies referred to above are specified in Schedule 1 to the Class Licence as:

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|---|---|
| 27.065 megahertz | HF channel 9; |
| 476.425 megahertz | UHF channel 5; and |
| 476.275 megahertz | UHF channel 35. |

Part 3.4, subsection 132 (3) of the *Radiocommunications Act 1992* specifies:

> "Operation of a radiocommunications device is not authorised by a class licence if it is not in accordance with the conditions of the licence."

The implications of this provision is that any person operating on the emergency channels for non-emergency purposes, or indeed on any other channel specified in the Class Licence contrary to the use specified, is in fact operating an **unlicensed radiocommunications device** as the operation is no longer authorised by the Class Licence.

Part 3.1, subsection 46 of the *Radiocommunications Act 1992*, specifies:

"**46 Unlicensed operation of radiocommunications devices**

Subject to section 49, a person must not, without reasonable excuse, knowingly or recklessly operate a radiocommunications device otherwise than as authorised by:

(a) a spectrum licence; or
(b) an apparatus licence; or
(c) a class licence.

Penalty:

(a) if the radiocommunications device is a radiocommunications transmitter:
  (i) if the offender is an individual—imprisonment for 2 years; or
  (ii) otherwise—1,500 penalty units; or
(b) if the radiocommunications device is not a radiocommunications transmitter—20 penalty units."

Obviously the above penalties are for worse case scenario, however it can be clearly seen that the operation of a CB station contrary to the provisions of the Class Licence can have serious legal implications. This is apart from any additional ramification should the operation cause the death of a person due to an emergency call being blocked.

## Growing Problems

It has become obvious that the situation on the UHF CBRS band is worsening at a rapid rate. It is becoming more common for 5/35 emergency repeaters to be rendered totally useless by children, truck drivers or travellers using the input channel, channel 35, for normal conversations unaware that channel 35 is indeed an emergency channel. If the operators happen to be within range of an Emergency Monitor, often they can be advised of the channel allocation and will then move, but far more often the stations are only within range of the repeater and Monitors are unable to make contact. The obvious fear is that this situation could block a serious emergency call from being heard and could therefore contribute to a death. The low cost of these low-powered UHF hand-held radios has seen a massive increase in the number of children being given these as gifts rather that the traditional 27MHz 'toy walkie-talkies'. Often both the

children and their parents are unaware that the hand-helds utilise CB channels, and they believe they have free access to any of the available 40 channels. When this is combined with the CTCSS option that is often also provided the potential for disaster is multiplied 100 fold.

Over the years the CBRS emergency channels have been used to obtain assistance for a wide range of incidents, from simple breakdowns and road directions, to severe motor vehicle accidents, boats in distress, and more. It is not uncommon for a call to involve the immediate safety of life and/or property, and although mobile telephones have now become the primary means for the public to contact the emergency services, there are still instances where the CBRS emergency channels are used as the primary link. A valid example of this would be during severe bushfires, when landline and mobile telephone services may fail for a number of reasons. Another example involves an incident in the NSW Barrington Tops region in 1998 when a teenager was severely injured during a camping accident. Rescuers were unable to use their own dedicated radio networks due to the terrain and location, and it fell to CBRS emergency monitors to relay information between the rescue party and Ambulance Control, including co-ordinating the use of the Rescue Helicopter. It is only a matter of time before an emergency call is blocked by operators using the emergency channels to chat and it is a real possibility that this call could involve the immediate safety of life and/or property.

The problem is not limited to only new users such as children and travellers. Many truck drivers are now using UHF in preference to 27MHz and are also unaware that there are two emergency channels on UHF CB, meaning that they often 'drop down a few channels' from the Highway Channel (channel 40) and end up chatting on channel 35, potentially preventing many other stations from using any 5/35 emergency repeater in the area. As the trucks are often travelling in close proximity to each other, attempts to make contact and clear the channel is often extremely difficult if not impossible.

Obviously the problem is one of 'education', in that new (and existing) users need to be made aware of a number of factors, being:

1. the fact that the equipment uses CB frequencies;
2. the fact that operation is governed by a Class Licence; and
3. the fact that certain channels are reserved for specific uses.

Although some manufacturers do list channel allocation details within the instruction manual, it is becoming more common, especially with these cheap hand-held radios, for no information to be included regarding channel uses or the Class Licence. We believe this is unacceptable and that it would be in everyone's best interest if manufacturers were forced to include this information as part of the approval criteria. This, however, will probably not solve all of the problems, especially as many people fail to read instruction manuals.

## A Death Has Occurred

Emergency operators in Queensland have drawn our attention to an incident several months ago near Deception Bay, north of Brisbane. Monitors report that an influx of channel blockers and abusive language on the emergency repeater 'BNE05' prevented Monitors from receiving an emergency call from a person involved in a serious motor vehicle accident. Up to four Monitors attempted to clear the repeater so the call could be received and actioned. Eventually when the call was able to be taken, some **40 minutes later**, the caller 'broke down in tears' advising Monitors, and those that had blocked the call, that his friend had died.

Had the emergency channel been clear and that call taken immediately, perhaps that person would have survived. At the very least a person involved in a serious accident that claimed one life was put through the added stress and anxiety of having to battle and argue for 40 minutes just to place a call for emergency assistance. This is totally unacceptable and proves that immediate action is indeed warranted before further lives are lost or, at the very least, placed in jeopardy.

Perhaps even more disturbing is the added news that the ACA were advised of this incident, by telephone and e-mail complaint, and to date the person lodging those complaints has heard nothing further from ACA and the BNE05 repeater continues to suffer interference from truck drivers and other conversations on channel 35, children with 'personal UHF radio equipment' on channel 5 simplex and 35, and those operators that generally have very little regard for the operating rules and conditions laid out in the legislation. How many deaths need to occur for ACA to begin enforcement action to assist those that volunteer their time and equipment to provide the community with an emergency monitoring service?

## Definition of Emergency

The Oxford Dictionary defines "**emergency**" as: *"a serious, unexpected, and potentially dangerous situation requiring immediate action"*

The dictionary at 'LAW.Com' defines "**emergency**" as: *"a sudden, unforseen happening which requires action to correct or to protect lives and/or property"*.

The question asked of the ACA is simple – **should a channel designated by law for use following "a sudden, unforseen happening which requires action to correct or to protect lives and/or property" be allowed by the relevant regulatory authority to continue being blocked, both deliberately and accidentally by users unaware of the channel allocation?**

## Use of CB Channels

As at the date of this submission we had not undertaken serious or extensive research in order to provide 100% accurate figures for all of Australia. Our priority is not the provision of statistics for use by government bureaucrats but rather the availability of the emergency channels when those that require assistance need to call. It is, however, plainly obvious from the constant reports received from our own Monitors, and other CBRS Stations, that extensive problems exist in almost all populated regions where CBRS equipment has become popular.

- As an example only, on 27th December 2004 the BNE05 5/35 Brisbane repeater was monitored for a period of 75 minutes from 10.15AM to 11.30AM, using software that logged every transmission. Out of that period, some 6.48 minutes or 8.64% of the time the repeater was busy from transmissions on channel 35 or 5 simplex. Although this seems insignificant, remember this was during a public holiday when many business users were absent, and was only one small portion of an entire day.

- Another report from South Australia advises that the repeater 'VLE01' is "virtually useless during the day" with children "playing music and hurling abuse at other operators" or from stations using illegal RF power amplifiers, or 'linears', to interrupt operations on the repeater. Despite the fact that these amplifiers are illegal to use on CB bands, this operator reports that it is not uncommon for RF amplifiers in the range 50W to 150W to be advertised for sale in the local newspaper. It is also common, in all parts of Australia, to find high powered commercial equipment programmed for UHF CB frequencies and power outputs of 25W or more, a fact that can be easily confirmed by watching e-Bay listings. Although e-Bay does not condone the selling of this type of equipment, and will withdraw the listing if notified, they can not stop all listings.

- Yet another operator from Victoria advises ongoing problems from communications companies programming UHF CB frequencies, with full CTCSS, into customers equipment and then advising the customer that they are on a licensed private frequency. This, of course, creates immense problems when other CB operators encounter these stations, who often verbally abuse any other station for operating on 'their channel'. An example of this, which was confirmed by operators in Victoria, was 'Warringal Shopping Mall' who apparently were provided with commercial equipment by 'Crosscomm Communications' with that equipment programmed to operate on UHF CB channel 3, which is the output channel for a UHF CBRS repeater used in Melbourne area. Another example

involved the RACV Country Club in Healesville using Motorola GP300 equipment programmed to operate on UHF CB channels 30 and 33 with full CTCSS.

- Melbourne operators advise that CREST in Victoria resorted to using a 'remote base link' to transmit calls on channel 5 to Monitors over commercial frequencies, and disable the conventional 5/35 repeater, due to the fact that local operators would use the 5/35 repeater for general conversation with no regard for its emergency status. It is reported that prior to 1997 the MEL05 5/35 repeater was in use by Melbourne stations some 90% of the time, forcing volunteers to resort to non-conventional means to provide emergency monitoring services.

- A commercial operator in the Lake Macquarie region (Newcastle) occupies some 18 channels of the UHF CB band, allocating a different channel to each 'call group' within the same plant. This severely limits the number of channels available to other CBRS stations in the area.

- UHF CB channels are often used by commercial operators for safety communications, such as crane chasers and traffic control, where interference from other stations at the wrong time could easily cost a life, however these operators are often unaware that they share the channel allocations with numerous other stations. As most of these operators have been equipped with CTCSS, the ability of the average CB hobbyist to advise them that they are using an occupied channel, or a repeater input channel, or even the emergency channels, is extremely limited – even if the hobbyists radio is also equipped with CTCSS there are some 64 different tones that the stations could be using.

### CTCSS

Continuous Tone Coded Squelch System, or CTCSS, was legalised on CBRS bands in 2000 by the ACA, despite the objection of the majority of CBRS users (some 94% of respondents). CTCSS utilises a constant 'sub-audible tone' that is sent with all transmissions. At the receiver the signal is only heard by the user if it contains the correct 'tone'. If an incorrect, or no, tone is received the signal is 'ignored' by the receiver.

## Proposed Solution

### 1. Improved Labelling and Information

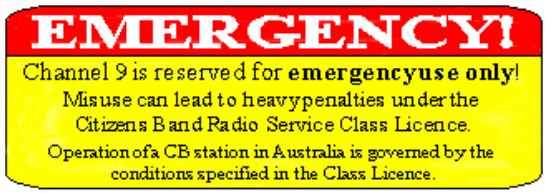
What we propose is a two part remedy to help alleviate future difficulties and hopefully reduce the number of stations accidentally using the CBRS emergency channels for non-emergency purposes. We submit that these remedies will not prove to be overly expensive for the manufacturers to implement and should be mandated by the ACA as a requirement for type-approval of CBRS equipment for use in Australia. The proposed remedies are:

1. **Inclusion of channel allocations and brief Class Licence information in the instruction manual**. Although some manufacturers already comply with this, it should become a mandatory requirement that all equipment utilising the CBRS frequencies contain information to alert the user as to the existence of the Class Licence, and to the CBRS channel allocations. It is far too common for new users to be totally unaware that their equipment even uses CBRS frequencies, let alone the existence of a Class Licence. With these cheap hand-held radios now being sold by supermarkets and the like, the days of the salesman informing the customer about CBRS rules and allocations are long gone, and we believe it is the responsibility of the manufacturer to ensure that customers are aware that certain rules governing the use of the equipment exists. We are not suggesting that the actual Class Licence needs to be included, just information regarding the channel allocations and advice that the use of the equipment is subject to the Class Licence.

Where instruction manuals have already been printed, to help reduce costs a supplement could easily be added consisting of just one or two pages containing the relevant information. In fact this could be an acceptable alternative for manufacturers that, for whatever reason, did not wish to actually amend the manual or wanted to allow an Australian distributor to add the supplements prior to distribution in Australia.

2. **Visual indication on the equipment regarding the emergency channels**. The simplest and cheapest way to accomplish this would be by a small sticker that could be attached to each radio to alert the user that channels 5 and 35 (UHF) are allocated for emergency use only. An example of a suitable sticker appears below. It is our belief that such a visual warning could prove more beneficial than any other form of advertisement or education as it would bring the warning to the attention of the person actually using the equipment, rather than just the person that reads the instruction manual. Perhaps the ACA could print the stickers in bulk and then sell them to the manufacturers, in order to reduce the costs by having a large quantity made.


*Label for UHF equipment*




*Label for 27MHz equipment*

An alternative to the placement of a sticker would be some other form of visual indication that an emergency channel has been selected, such as an LED indicator clearly marked "Emergency" that illuminates when the relevant channel is selected, or a similar indication on the LCD display. Although it is estimated that this option would prove far more expensive for manufacturers, it should still be made an available alternative to the use of a warning sticker.

Equipment manufactured for sale in New Zealand where these channel allocations don't apply would not be effected by these changes as wording to indicate that the allocations are applicable in Australia only could easily be incorporated

## 2. Increased Enforcement

It is our belief that the ACA as the "government regulator of radiocommunications" has a duty of care to ensure that radio frequencies designated for emergency use are kept available for such use, as far as possible. Whilst we understand that the ACA can not be 100% responsible for keeping these channels clear, and no amount of enforcement can guarantee that these channels will remain clear and available at all times, a certain amount of active enforcement is necessary.

Over the years the respective agencies have advocated the CBRS bands be 'self-regulating', making the actual users directly responsible for ensuring that operating conditions are observed. However self-regulation is only effective if there is an observable enforcement by the regulating authority for those persistently breaking the rules. The CBRS bands have somewhat fallen into a state of 'disarray' over the years, primarily because the 'fear' of the Radio Inspector that loomed over CB operators many years ago is no longer seen as a threat. In fact, many CBers today believe that CB has been totally de-regulated and that the ACA have absolutely no interest (or power) in what happens on those frequencies. It is common practice for UHF operators to utilise commercial equipment with operating powers of 25W or more, or for 27MHz operators to utilise modes such as SSTV, RTTY and digital voice on frequencies above 27.405MHz, and any attempt at 'self-regulation' is often met with abuse and the comment "ACA don't care anymore".

In our opinion the ACA and its predecessors must accept some responsibility for the decline in operating conditions on the CBRS bands. Reductions in staff and budgets has meant that the once feared Radio Inspector is now believed to be an extinct species, and self-regulation is not possible or feasible without the backing of a regulating agency willing to take action against illegal operators. For any attempt at returning the CBRS bands to some level of 'sanity' and educating newcomers as to regulations and allocations to be effective, the governing agency must instigate some form of enforcement activity to reinforce the message that rules and regulations concerning the operation of CB do exist. Speed limits are of little use unless Police enforce these and although not every speeder can be caught, if enforcement takes place often enough word soon spreads and fewer drivers will risk speeding on that stretch of road. Similarly with CB, although every person in breach of the Class Licence can not be caught, eventually if enforcement occurs regularly but randomly word will spread, and operators will realise that if they breach the rules there is a risk that they will be caught and penalised.

With the closing of many regional offices, it is our belief that more field staff should be made available to undertake such enforcement actions. Even randomly visiting a location to inspect equipment, an act that was once feared amongst CB stations, would show that ACA is concerned with CB frequencies.

## Alternative Solutions

No doubt manufacturers will not react positively to a request to add extra labelling as this will increase costs, even if only very slightly and even if these changes could help to save a life. There is little doubt that some type of education needs to take place and the longer it takes for this to occur the more users that are unaware of the CB channel allocations there will be to potentially cause interference to a call for help.

An alternative to the above labelling requirements would be the re-introduction of a licence for all CBRS equipment. If adopted this licence could be a one-off fee only, removing the need for annual renewals and related costs to ACA, and could be issued by the retailers at the time of sale, again reducing the costs to ACA in implementing the scheme. The primary purpose of issuing these 'licences' would be to make users accountable once again for their actions, and to ensure that they are aware of the rules applicable to the use of CBRS equipment. Whilst we agree that an actual Apparatus Licence is no longer desirable for the CBRS, in the form of an annual licence and allocated callsign, etc, the introduction of a 'permit' style licence with a one-off fee, to cover administrative expenses, no callsign allocation and no need for annual renewal may indeed help to alleviate some of the growing problems associated with the CBRS, especially if retailers were made responsible for the issuing of these permits at time of sale.

Another alternative would be for the ACA to fund an ongoing media campaign to educate users regarding the existence of the Class Licence and correct channel usage, including an increase in enforcement action to address the growing problem of users operating on the emergency channels, call channel and repeater input channels. It is anticipated that this alternative would no doubt exceed the available budget for ACA enforcement activities and therefore would never become a serious consideration, meaning that the education of new (and existing) users of the conditions of the CBRS Class Licence must be undertaken by other means such as our initial proposal for labelling of all new equipment.

## Summary

We understand that the ACA would be extremely reluctant to consider any return to a licensing scheme for the CBRS, and that the introduction of a requirement for labelling and increased information to end users would also be met with resistance from the manufacturers, who obviously would be concerned about the increased costs involved. However we ask that ACA carefully consider the potential risk to life and property that exists due to the ongoing misuse of the CBRS emergency channels by users that are unaware they are using CB channels, let alone the fact that such regulations exist. Someone must remain responsible for ensuring that users of the equipment are made aware of the fact that regulations and

channel allocations exist that apply to the use of this equipment, and if that responsibility no longer rests with the ACA then it must fall to either the manufacturer or the retailer.

With an increasing number of retailers such as supermarkets, discount warehouses, etc, now selling UHF CBRS equipment it would be fair to expect that manufacturers need to take appropriate steps to ensure that the end-users of their equipment are properly warned about matters such as regulations and channel allocations, and we submit that on a large scale such as that facing most manufacturers the added costs of the above labelling requirements would be extremely negligible indeed. Uniden Australia have already responded to concerns over information contained in user manuals, and have updated many of their manuals to show all of the current legal channel allocations. Surely if one manufacturer can accomplish this task, it is feasible to expect all manufacturers to follow suit.

We therefore respectively ask that the ACA look at amending the type approval and/or standard to include the requirement for manufacturers to include the suggested information in the manuals and on the equipment, not only to help reduce interference to the CBRS emergency channels but also to assist in the ACA's existing responsibility as the agency responsible for enforcing the conditions of the CBRS Class Licence, including the channel allocations contained therein.

We also see implementation of these suggestions as a way to reduce the impact that the introduction of Continuous Tone Coded Squelch Systems (CTCSS) on CBRS has had on the UHF band. In 2000, despite an overwhelming majority of respondents **(94%)** being **against** the legalisation of CTCSS, the ACA went ahead with their plans and amended the Class Licence to permit CTCSS. Since then an increase in business users utilising CTCSS in order to 'own' a particular channel has caused significant inconvenience to CB hobbyists in many regions. With a distinct lack of enforcement action by ACA to rectify this problem, education by way of equipment labelling to alert operators is seen by this organisation as possibly the best and easiest way to remedy the growing problem. The 'solution' instigated by the ACA at the time CTCSS was introduced was the incorporation of a 'channel busy light' to prevent stations using CTCSS from interfering with other stations. However this feature is of little benefit where users have been misled into believing they are on a private commercial frequency and operators disregard visual indicators – if a station can not be heard, it isn't there!

As UHF CB equipment on the 476-477MHz band is unique to Australia and New Zealand, we do not see these added requirements as adding much expense to the costs of printing manuals and producing equipment.

## A.C.R.E.M. – NSW

A.C.R.E.M. – NSW (Australian Citizens Radio Emergency Monitors – New South Wales) is a volunteer non-profit organisation providing emergency monitoring and communications services on the CBRS frequencies, primarily to relay calls for assistance from the community on the CBRS emergency channels to the required services. A.C.R.E.M. – NSW also represents the interests of the CBRS hobbyists on matters that affect the CBRS emergency channels, the CBRS bands as a whole, and the general safety of the community.

A.C.R.E.M. – NSW is endorsed by the Australian Taxation Office as a public benevolent institution and a deductible gift recipient. It is presently the only CBRS emergency monitoring organisation in NSW that holds this endorsement on a state wide basis. *(Based on records at www.abr.business.gov.au as at 1st November 2004.)*

ACREM is an offshoot of the group ACRM which first formed in South Australia around 1974 as the Australian Citizen Radio Movement to help petition the Government for the legalisation of CB in Australia. Soon after legalisation ACRM concentrated solely on providing a monitoring service for the CB emergency channel, which had rapidly become a popular means for the public to report incidents such as accidents, bushfires, and the like. ACRM changed its name to the Australian Citizen Radio Monitors,

and rapidly spread throughout Australia. Around this time other monitoring groups also formed, but ACRM remained the oldest and longest serving.

In 1982 ACRM in Queensland added the word "Emergency" to their name, and ACREM was created. In NSW members of ACRM (SA), ACRM (NSW) and even ACREM (Qld) operated independent of each other, which made it difficult for ACRM/ACREM to gain any type of widespread recognition in that state. In 1997 members of ACRM (NSW) and ACREM (Qld) in NSW were merged into a single group, and A.C.R.E.M. – NSW was created. At this time a new Constitution and Training protocol was also created, and now A.C.R.E.M. – NSW Monitor training is among the highest in Australia, and certainly in NSW.

A.C.R.E.M. – NSW is affiliated with ACBRO (Australian Association of Citizen & Band Radio Operators) and the VKS-737 Australian 4WD Radio Network. Members over the years have also participated in events such as JOTA, helping to teach children the importance of correct radio operating procedure, and with the Bureau of Meteorology 'Storm Spotter' network, broadcasting to the community via CB frequencies details of severe weather warnings and reporting to the Bureau severe weather events in their community. A.C.R.E.M. – NSW has also made representations to the Australian Federal Police, Missing Persons Unit, on the possible involvement of CB Radio and Australian CB emergency groups in an Australian version of the USA "AMBER Alert" system ***(America's Missing: Broadcast Emergency Response)***, which aims to assist in locating missing or kidnapped children by alerting the public as quickly as possible.

Whilst the primary concern of A.C.R.E.M. – NSW remains the availability of the CBRS emergency channels to anyone that may be in need of assistance, the inappropriate use of other allocated channels, such as call channel, repeater input and output channels, etc also rates high on our list of concerns. We will continue to represent the CB hobbyists on all matters that effect CBRS frequencies and regulations, where it is deemed such representation is appropriate.

Martin Howells (VK2UMJ)
State Coordinator

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## Glossary

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| ACA | Australian Communications Authority – the agency responsible for regulating the radio frequency spectrum in Australia. |
| ACRM | Australian Citizen Radio Monitors (originally started in 1974 as Australian Citizen Radio Movement). |
| ACREM | Australian Citizens Radio Emergency Monitors. |
| CB | Citizen Band – a radio service intended to allow the public access to radio communications |
| CBRS | Citizen Band Radio Service – see CB |
| | Citizen Band Radio Station – a station operating on frequencies allocated to the Citizen Band Radio Service. |
| CREST | Citizens Radio Emergency Service Teams. |
| CTCSS | Continuous Tone Coded Squelch System – a form of signalling that utilises 'sub audible' tones transmitted with a signal to prevent unwanted signals from being heard. (signals that do not contain the correct tone will not be heard by the operator) |
| JOTA | Jamboree On The Air – an annual event held by scout and guide groups around the world using radio to allow children to make contact with other JOTA groups. |
| kHz | Kilohertz - 1000 cycles per second. |
| Linear Amp | An amplifier that is used to boost the level of RF power transmitted by a transceiver. |
| MHz | Megahertz - 1,000,000 cycles per second. |
| RTTY | Radio Teletype – a form of digital communications using radio frequencies. |
| SSTV | Slow Scan Television – a form of digital communications using radio frequencies to transmit images. |
| UHF | Ultra High Frequency – the part of the radiofrequency spectrum between 300MHz and 3000MHz. |
| | The CB band that is allocated between 476.425MHz and 477.400MHz. |