

Response to changes for CB communication

Hello every one!

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First at all I would be very happy that FM gonna be used on Australian 27MHz CB. Many countries like in Europe etc are using FM. That because FM more protected from AM noise etc. Also CB radio in FM mode has better voice quality, radio's noise/ interference limiter works better, transmitter in FM mode works more effective and much stable if compare to AM or SSB.

Also should note that it's better to use narrow FM (similar like on UHF CB band) because narrow FM gives more concentrated signal – I mean bigger density of transmitted power so we can get bigger distance and more channel's in the same band!

About initiation calls on specific channels – I think it's not necessary – CB user should use any channel for that and this will make it more convenient!

I propose to permit to use of a selcall on 27 CB and this can be easy implemented in FM mode. I already developed HF CB sell call in Ukraine using SSB mode – after many test I found out that one bit of selcall should be not less than 500msec in duration to use in very noisy 27MHz CB (I used 600msec in my case). So when my selcall signal received other radio - by base station, base station opens audio amplifier and person at base station can start conversation, all other times base CB radio keeps silent. I used simultaneously two audio frequencies (in parallel) in my selcall signal because this gives almost 99% protection from false opening audio amplifier of other radio's receiver. One frequency at time does not give that because it can match any accidental noise on 27 CB channels and other radio (destination radio) can be opened and nearby person just will hear unwanted noise! This method dramatically reduces unwanted noise from radio which cannot be controlled by radio's squelch! In any case my wife was very happy not to listen noise from base radio who whole day!

Also I added feature when I send a special selcall code then base radio receives it and responds back to me automatically give me idea if I'm in reach distance to my base! Also it would be great to permit to use a packet mode of communication on 27CB channels. In this case must be used the same principle of forming signal using two audio or sub audio frequencies because again – 27MHz is very noisy and just using standard AX25 packet almost not possible! So using modified packet it would be possible to send GPS coordinates from outback to base station or to other CB user in case of emergency etc... And FM radio is much simpler to interface with other devices like to extend a phone calls via mobile phone etc which is important if person traveling in outback where is no mobile phone network! I think CB user can use any channel for emergency where he or she can hear some people's activity and this will be his rescue! Of course such modifications to CB radio and its interfacing to other devices like mobile phone or computer must be done within some rules and by person who understands in electronics etc.. Also I hope that it would be possible to use packet mode (similar to AX25) on UHF channels!

Also it should be noted that in some cases it is only on 27MHz radio signal bends hills and some mountains and communication can be possible where it's not possible on UHF CB!

Thank you for reading my notes which I hope will give some profit in radio communication and thank you for your attention in this matter!

Vitaliy Zamsha, Perth, WA, 8/7/2025, P.S. I give permission to correct this text and ask me any questions!