

## **REPEATER PHILOSOPHY AND GUIDELINES**

(Revised November 25, 2001 Rev. A)

### **INTRODUCTION**

The Santa Barbara Amateur Radio Club (SBARC) is a non-profit organization under the provision of the United States Internal Revenue Service and is incorporated under California State laws. The primary purpose of the Club is to foster the growth and development of Amateur Radio at the local level for the mutual benefit and enjoyment of the majority of the membership and as a public service, especially in times of emergency. SBARC maintains an active affiliation with the American Radio Relay League, Inc., of Newington, CT, and is dedicated to the support of an active Amateur Radio Emergency Service (ARES) operation.

These purposes can only be effectively and democratically fulfilled if clear philosophies for the various Club functions are established and understood by the members and non-members of the Amateur community of Santa Barbara and surrounding areas. It is the intent of this document to state the SBARC philosophy with regard to its repeaters and the guidelines for the use of them.

### **BASIC PHILOSOPHY**

The basic philosophy of SBARC with regard to repeaters is nearly the same as the Club itself: "To foster the growth and development of Amateur Radio at the local level for the mutual benefit of the majority of the membership and as a means of providing public service, especially in times of emergency."

There are two key words in the basic philosophy: "majority" and "emergency." In a Club as diverse as one associated with the many facets of Amateur Radio, management and direction can be effective only if the needs and will of the majority are primary considerations. The Board of Directors weighs heavily these factors in the policy and decision making process. However, the Club management also considers the concerns of the minority interests at all times so unity can be achieved.

Priority of SBARC decisions will also be given to the ability to be prepared to provide adequate communications in times of emergency. This is consistent with Federal requirements of the Amateur Radio Service and is also consistent with our commitment to the City and County of Santa Barbara regarding the use of our repeater sites on their property and our Memorandums of Understanding between SBARC and various governmental and emergency services agencies.

Should you have a question or complaint about system operation or an idea on how it could be improved, contact a member of the K6TZ Repeater Systems Committee. This committee interfaces on your behalf with the repeater management and technical committees and the Board of Directors. Members of the committee are listed on the inside cover of *Key-Klix*.

## **OPERATIONAL GUIDELINES**

The following are presented as guidelines for operation on any SBARC repeater and are represented by one basic rule: ***common courtesy and decency which respects the rights of all users.***

1. The best repeater user is one who listens a lot. This is particularly true for newcomers.

2. If you are not a newcomer, you have an obligation to set a proper example for them. We have spent many years establishing and maintaining our reputation as being a family-oriented, friendly repeater. We have also carefully cultivated our posture and relationships with local police, fire, and other public service agencies. What you say in a few moments could destroy years of hard work building our good reputation. Don't leave a bad impression of our hobby by making thoughtless or off-color remarks over our big party line, which is monitored by the general public on scanners as well as our fellow Amateurs.

3. The basic order of traffic priority is:
- A. Emergency traffic - life and/or property
  - B. Traffic of substance or directions
  - C. General conversation
  - D. Non-emergency autopatch calls
  - E. Demonstrations

4. All SBARC repeaters are PL-activated on 131.8 Hz and the PL is on at all times to help alleviate interference with other repeaters on the same frequency in Southern California. If you do not have PL on your radio, you can push 991 on your touch-tone pad, which will remove the PL and allow you to transmit. When you complete your use of the repeater, please push 990 to restore the PL on the repeater. (If you should forget the code, the PL will automatically go back on after 30 seconds without further input on the repeater.)

5. The courtesy tone generated at the end of a transmission is created to indicate to listeners: (1) when a person has ended a transmission, (2) when a person's transmit signal has dropped below squelch level at the repeater receiver, and (3) what mode of operation the repeater is operating in. There are three operating modes in the repeaters. These operating modes are signified audibly by the repeater in the form of the courtesy tones generated after the transmitting station releases the push-to-talk switch. The modes are as follows:

Repeater Mode	Tone (All Repeaters)
Normal	Single Tone
Club Net	Double Tone
ARES Net	Triple Tone

You will find that the best procedure to follow when you first turn on your radio and prior to transmitting is to:

- First, LISTEN for a few seconds to see if there is a conversation in progress.
- Second, press your microphone button (push-to-talk switch) once for about one second, release the mike button and listen for the courtesy tone to determine what mode the repeater is in.
- Third, if the mode is Normal and you still hear no traffic, make your call or identify yourself to indicate who transmitted to activate the repeater (as required by the FCC).

If you find the repeater is in a mode other than Normal, you should not make any further transmissions (except your call sign) without going through the Net Control Operator. Both the Club Net and ARES Net Modes indicate a formal net is in progress and no traffic or autopatch calls are initiated without going through the Net Control Operator, who may or may not approve the request, depending on circumstances.

6. Allow time between each transmission to allow breakers to make themselves heard. Remember, an emergency can't wait for your conversation to finish. Always allow some space by waiting a second or two after you hear the courtesy tone(s) before transmitting. This insures that the other person has released the microphone push-to-talk switch, is no longer transmitting, and allows a person with an emergency to break in.

7. Rules for interrupting a conversation already in progress:

A. If you interrupt a conversation, it is assumed that you have a desire to join in on the conversation in progress or that you have a higher priority of traffic than that of the conversation in progress. (See Paragraph 3 above.) If your reason for interrupting doesn't fall into one of these two categories, ***then you should not interrupt the conversation***. If you feel you cannot wait with your traffic, but you don't have an emergency, it is considered courteous for you to ask for permission to make a call by giving your callsign (or last portion thereof) and, after making your contact, move to another frequency with your conversation. (After completing your interjection into an existing conversation, have the courtesy to thank those who relinquished the repeater to you.)

B. To interrupt a conversation for non-emergency situations, use this procedure:

“WB6XYZ” or “XYZ” (i.e., your call sign or suffix)

“Info” or

“Question” or

“Comment”

**NOTE:** Because of differing agency standards regarding the use of the word “Break,” do not use it to request a non-emergency interruption of an in-progress conversation.

C. To interrupt a conversation for emergency situations, use:

“Break, break” or

“Emergency” or

“Help” or

“MAYDAY” or

“Priority”

## **AUTOPATCH GUIDELINES**

1. We maintain an open repeater philosophy with regard to basic operations and emergency autodial functions. The emergency autodial codes for the 146.79 MHz, 224.12 MHz, and 446.40 MHz repeaters are given out to all members of SBARC on the Club membership card. **NEVER** give out any codes for operation of any functions over the air. This will insure the continued integrity of operations. Members may give the codes to non-members who will, based on personal confidence, operate within our operating guidelines. This personal confidence should be based on the member's knowledge of the individual and that person's need for the codes. The integrity of the repeaters and the capability of the telephone autopatch we enjoy and depend on is up to each of us to protect. We welcome to the system those who are not members but who have more than a casual need for codes and will likewise protect the integrity of the system.

2. The use of the telephone autopatch is particularly sensitive, primarily because it has the potential for causing problems for the Club. Most times the autopatch is used, one of the persons talking over the repeater is not an Amateur and is not accustomed to the rules we have to follow. Our control operators pay closer attention and may admonish operators for improper operation.

Be sure you are within clear operating range of the repeater when making the call. If you are not solid into the repeater, the person you call will not understand why you are breaking up or why you went away in the middle of your conversation. Keep your transmissions short so you will quickly know if you have moved into a poor path to the repeater. Remember, if you can not hear the repeater full quieting (without background noise), then you will most likely not be able to transmit to the repeater full quieting. Get to a good area or stay in a good area to make your call. If you are poor copy to the repeater, you may not be able to disconnect the autopatch, which will lock the repeater on. You waste valuable time if you can not clearly communicate.

3. When you place an autopatch call from your radio, the person on the other end answers the phone and assumes you're also using a phone. However, remember the whole conversation is over the radio, there is a new set of rules governing it and only one person can talk at a time. After your autopatch call is answered, tell the person you are calling from a radio. If the person is familiar with the differences, then you need explain no more. If not, you should also indicate that the call is not private and that only one person can talk at a time. You should be safe to go on with your call from there. Also: ***no profanity***. You might want to warn some people about that rule at the beginning.

4. Three SBARC repeaters have a capability to access the phone line. Two repeaters, 146.79 MHz and 446.40 MHz are co-located within the same shelter and share a common phone line at La Vigia Hill in Santa Barbara City. The 224.12 MHz system at Santa Ynez Peak is located in the County. Each repeater has its own control system. There are some differences in the way each system controller responds to phone patch calls. However, each system supports an emergency auto-dial which are identical in operation.

5. The normal operating mode of the repeater has a timer which will terminate your phone call at the end of three minutes unless you purposely extend the length of the call. When two minutes and 40 seconds go by, the repeater will warn you once with a small beep-beep tone. This means that you have 20 seconds to extend the call timer or hang up. If you do not extend the call with the appropriate code, then the repeater will hang up for you at three minutes. If you extend, you will get no more warnings, but you can continue to extend. After the first warning, you have to time yourself to prevent the machine from hanging up the call. Try to keep your calls less than three minutes. When the repeater is in the ARES mode or any emergency autodial mode, there is no timer on the autopatch because most calls being made will be of an emergency nature and are not to be limited. (Reminder: when an ARES operation is in progress, indicated by the three beep tone, ***all*** traffic goes through the Net Control first.)

6. Verify that the frequency is clear before starting an autopatch call and identify yourself, stating that you are accessing the autopatch. At the end of your call, hang up the phone with the appropriate code. Then release your microphone push-to-talk button. You will hear a voice response by the repeater. The FCC requires that you identify at the end of your call. Please do this within 10 seconds of this announcement and indicate that you are clearing the autopatch. If your autopatch call is answered by an answering machine with music or a "colorful" announcement, simply press your mike button. This will cover up the unallowed transmissions. By releasing the mike button periodically, you can usually tell when it is clear for you to transmit and resume your autopatch call.

Here's an example of an autopatch call procedure:

"Is the frequency clear?"

"This is KA6XYZ (your call sign) accessing the autopatch."

(Codes and number entered by touch tone pad.)

(Repeater replies, "Thank you," and repeats the number.)

(Repeater dials number.)

(Phone is answered on the other end.) "Hello."

"Hi, Mary. This is John and I am calling from the radio. Only one of us can talk at a time and we can't talk about business. Also, the whole world can hear us. OK?"

(You complete your conversation and Mary hangs up.)

(You enter the codes for hanging up the patch.)

(Repeater voice response.)

"This is KA6XYZ (your call sign) clearing the autopatch."

The next time you call Mary you should have to announce to her only that you are calling her from the radio. It will become almost automatic for you after a little practice.

7. The emergency autodial numbers programmed into the repeater memory are there *for emergency use only*. We have been specifically requested to NOT dial 911 to report accidents, fires, or other emergencies on the freeway when traffic volume is likely to have the incident reported by cellular phones. If you feel the incident is unlikely to have been already reported, call 911. *One of the quickest ways for us to lose our autopatch privileges and even our telephone connection is for non-emergency calls to be made via our repeater to emergency services agencies.*

**REMEMBER:** just like your home phone, don't dial 911 over the repeater autopatch unless you have an emergency. ***DON'T PLAY GAMES WITH IT!!!***

The only exception to the autodial numbers programmed into the repeater that is not considered emergency use is the time check slot. It was pre-programmed for convenient access to the number, and to allow you to practice use of the emergency autodial capability without actually calling an emergency number. These autodial numbers are listed on your SBARC membership card.

8. Calls to the police or CHP that are not emergency in nature (disabled vehicle, road hazard, etc.) are programmed in other emergency autodial slots. For example, the CHP number connects you directly with CHP Dispatch in Ventura (a non-emergency number). Use this number for road hazards that are not likely to cause an emergency situation. If you get a busy signal, hang up the autopatch and redial.

There are non-emergency numbers in the emergency autodial list that are for "info" type calls to either City or County Dispatch centers. Both dispatch centers agree that you **should** dial 911 if: A) the nature of your call would require *any* response of fire, police/sheriff, or ambulance, or B) if you are not sure if the situation is an emergency. For example: a board laying in the middle of State Street would not normally be categorized as an emergency; however, the same board in the middle of the freeway would be considered an emergency because of the increased speed on the freeway and the potential for

injury to motorists. So, if in doubt, call 911. If it's an info-only type call, use the non-emergency number.

9. When making 911 calls, keep your sentences short and to the point. When the dispatcher answers, say

Who you are (mobile Amateur Radio Operator)

What the problem is (injury/non-injury accident)

Where the problem is (street or highway, nearest cross-street or off ramp, direction of travel, etc.)

The dispatcher can then ask you for further information, transfer you to the proper agency, or tell you the incident has already been reported.

When you dial 911 on the 146.79 MHz and 446.40 MHz repeaters, the Santa Barbara City dispatch center will answer because the repeater (and therefore the phone) is located in the City. The phone for the 224.12 MHz repeater is located in the County and is answered by the County Dispatch. This is why you may sometimes be transferred to another agency.

## OTHER INFORMATION

1. There are a few extra features of the repeater which are not available to all users on an "open" basis. They include a personal speed dial slot for the autopatch and a slot for a personal pager. The speed dial slot allows you to more easily dial a phone number you frequently use by not having to punch in all the numbers. In addition, the number is not repeated over the air, which may be an extra benefit for those who have unlisted phone numbers. The pager privilege is for those who purchase a private pager and wish to have the ability to activate the pager via the repeater. **A word of caution:** before you purchase a pager for this use, please coordinate with the repeater committee to make sure you purchase a pager with the right frequency and pager codes.

2. We are fortunate here in Santa Barbara in that we don't have a lot of jamming by ill-intentioned Amateur Radio Operators. Jammers, by their very nature and action, are immature and trying to attract attention and, in a warped sense, trying to join into the "group." If we talk to them or about them, or respond to them in any way with anger or negativity, we are furnishing their attention. Ignore them. Don't let it be known that you even notice it. The repeater will not be shut down because of jamming. This is for three reasons: a) the jamming may not be intentional and some communications may still be possible on top of the jamming signal; b) if the repeater is shut down the jammer is given the recognition and attention wanted; and c) if the repeater goes away, the jammer will also leave and the control and technical committees will not be able to identify and/or locate the jammer.

3. A normal Amateur Radio rule that bears repeating is: don't use any more power than necessary. If you can easily reach the repeater with one watt of power, don't use 30 watts. It's not necessary and FCC rules state that we can use only the power necessary to maintain communications. But most important, we have neighbors south of us (Anaheim and San Diego) on the same frequency who could be interfered with unnecessarily. Occasionally, when the ducting phenomenon occurs, we both will have mutual interference,

even with minimal power. Neither group is willing to tolerate interference from Amateurs using excess power for no reason.

4. If you feel one or more of your touch tone pads are not operating properly, there is a self-test feature on all repeaters. Contact any repeater user representative (listed on the inside front cover of *Key-Klix*), who will activate this function for you. The user representative will explain how you can test each touch tone key on your radio for proper operation.

5. **Danger! Hamburglars may be listening!** If you are leaving home, especially for an extended period (vacation, week-ending, etc.), don't broadcast it over the repeaters. Amateurs in some communities have had their homes completely stripped after they let it be known of their travel plans over the air.

## CONCLUSIONS

This part is simple:

**LEARN IT.**

**USE IT.**

**PROTECT IT.**

**ENJOY IT.**