EmComm Toolbox

Practices, Guidelines, Procedures and Etiquette

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EmComm Tools

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ITU Phonetic Alphabet

Char	Word	Pronunciation	Char	Word	Pronunciation
A	Alfa	**AL**FAH	N	November	NO**VEM**BER
B	Bravo	**BRAH**VOH	O	Oscar	**OSS**CAH
C	Charlie	**CHAR**LEE	P	Papa	PAH**PAH**
D	Delta	**DELL**TAH	Q	Quebec	KEH**BECK**
E	Echo	**ECK**OH	R	Romeo	**ROW**ME OH
F	Foxtrot	**FOKS**TROT	S	Sierra	SEE**AIR**AH
G	Golf	GOLF	T	Tango	**TANG**GO
H	Hotel	HOH**TELL**	U	Uniform	**YOU**NEE FORM
I	India	**IN**DEE AH	V	Victor	**VIK**TAH
J	Juliett	**JEW**LEE ETT	W	Whiskey	**WISS**KEY
K	Kilo	**KEY**LOH	X	X-ray	**ECK**SRAY
L	Lima	**LEE**MAH	Y	Yankee	**YAN**GKEY
M	Mike	MIKE	Z	Zulu	**ZOO**LOO

ITU Phonetic Numbers

Char	Word	Pronunciation
0	Zero	ZEE-RO
1	One	WUN
2	Two	TOO
3	Three	TREE
4	Four	FOW-ER
5	Five	FIFE
6	Six	SIX
7	Seven	SEV-EN
8	Eight	AIT
9	Niner *	NIN-ER

* Niner only when using phonetics; Nine in normal usage.

Break Tags

- A method of getting attention and establishing message priority

- Seven common one-word break tags

- Have been used with great success in large public/emergency services nets

- Operator uses the word specified as a Break Tag without a call sign

- They are to be used only when the operator's traffic will be appreciated by net control and results in more efficient communication

- Message that follows a break should be as short as possible (after net acknowledges)

Break Tags
Definitions and Usage

- **ANSWER**
  - To be used when you have the definitive answer to a question currently being discussed on the air

- **QUESTION**
  - To be used when asking a question that can't wait
    - For example, use when the mayor is standing next to you and requesting you to get information using your radio

Break Tags
Definitions and Usage

- **INFO**
  - To be used when information needs to be transmitted rapidly but is not related to what is being said on the air
    - For example, if an event that net control needs to know about is going to happen in the next few seconds or if waiting for the end of an exchange will negate the value of the information

Break Tags
Definitions and Usage

- **PRIORITY**

  – To be used to report an important but non-life threatening situation such as a traffic accident that just happened

- **MEDICAL**

  – To be used to report a minor medical incident that affects the operator in some way

    - For example, having to leave his/her post for a few minutes to walk someone with a minor cut over to a med tent

Break Tags
Definitions and Usage

- **EMERGENCY**
  - Only to be used to report an ongoing life or property threatening or damaging incident

- **(MY CALL SIGN)**
  - An indication that the operator has traffic that can wait and does not require the cessation of the ongoing exchange. This tag is an expectation to be put on hold and in queue for transmission

Tactical Call Signs

By using Tactical Call Signs, the net can be conducted without regard to which operator is at the radio. They identify the position and not the operator.

Tactical Call Signs

- Use the Tactical Call Sign to identify your transmission and to address another station by its Tactical Call Sign.

- No call sign is necessary in a two-way conversation once communications has been established.

- To comply with FCC rules, add your FCC call sign to your last transmission in a series.

- It is not necessary to add the receiving party's call sign, just your own.

Tactical Call Signs

Example

Rest Stop Two:	**Water Two**
Net Control:	**Go, Water Two**
Rest Stop Two:	**The lead Marathon runner just passed this point**
Net Control:	**Copy, lead runner passing rest stop 2. WC5EOC**
Rest Stop Two:	**K5ABC**

Signing with your FCC call sign will signify ending your transmission.

Tactical Call Signs

Best practice: Establish contact using your Tactical Call and end the contact with your FCC Call.

Prowords

What are Prowords?

PROWORDS - Procedural words or "Prowords" are words or phrases that have special meaning to expedite the flow and accuracy of voice communications.

A Proword is a standardized procedural word used to facilitate understanding.

Examples given in the following slides.

Prowords

OVER – I have completed my transmission and I am awaiting a response.

OUT – I have completed my transmission and no response is necessary.

CLEAR – I am leaving the net or frequency or I am closing my station.

Prowords

ROGER – Your last transmission was received satisfactorily. Not to be used in place of Affirmative or Yes.

COPY THAT – Sometimes preferred to Roger.

AFFIRMATIVE – I agree, Permission Granted, or "Yes".

NEGATIVE – I disagree, Permission denied or "No".

Prowords

SAY AGAIN – Repeat (the indicated portion) of a transmission.

TALK SLOWER – Pause between phrases to allow the writer to catch up with the sender.

I SPELL – The word or abbreviation that follows is spelled phonetically as: _____.

NUMBERS – The following will consist of a group of numerals.

Operating Procedures

- When transmitting, **always talk across the face of the microphone**, not directly into it.

- Speak slowly, distinctly and clearly.

- Hold the mike button down for at least two seconds before beginning your message. This will assure that the first part of your transmission is not cut off.

Operating Procedures

- Know what you are going to say before you push the mike button. Do not fill the air with hesitations.

- **Listen**… before transmitting to be sure you are not 'doubling' with another station.

- Under stress, many operators have a tendency to talk fast. Even if you are in the midst of action, speak slowly and clearly. REMEMBER, ACCURACY FIRST, SPEED SECOND.

Operating Procedures

STAY CALM

Operating Procedures

- Net Control stations are frequently busy with work that is not on the air. If you call the NCS and do not get a reply, be patient and call again in a minute or two. If it is an emergency, so state; otherwise just space your calls to the NCS.

- Only transmit facts. If your message is a question, deduction, educated guess or hearsay, identify it as such. Do not clutter the air with non-essential information.

Operating Procedures

- Always keep a monitor on the net frequency. If you must leave the frequency, ask permission from the NCS. Advise NCS when you return to the frequency. It is important that the NCS know the whereabouts of each station in the net.

- Always acknowledge calls and instructions. You can acknowledge by just giving your unit identification. Nothing is more disruptive to the smooth flow of traffic than dead silence in response to a message.

Operating Procedures

• Use a headset whenever possible. This is very important. Many times there are people near your position that are not involved in the operation and are not aware of what is happening. A few words over heard and misunderstood could soon become a problem for all. **False rumors can be disastrous**.

IN A HIGH AMBIENT NOISE LEVEL, A HEADSET IS A MUST….

Operating Procedures

- When contacting Net Control, WAIT for NCS to acknowledge you before giving your traffic. You don't know what NCS has going; usually a lot.

- Remember that FCC Rules REQUIRE stations to ID every 10 minutes. Nets are on-going contacts.

- Hint: ID when repeater does. Most repeaters are set to ID every 9 minutes.

- When passing a message, it's a good practice to write the message as you speak it. That way you'll slow down so the recipient can copy the message.

SLOW DOWN!

Operating Procedures

These suggestions are intended to help you become a better operator whether in a ham contest or public service mission.

As you can see, most of this material is directed toward voice operation, as it is this mode that is most used in events communication.

Ham Radio Etiquette

Congratulations on your new ham license. We understand that getting on the air can be a bit intimidating. Don't worry; we all were new hams once.

- Take the time to listen to the repeaters.
- Speak like you were talking to someone face to face. Key the mike, AND THEN start to talk. Don't start speaking as you key the mike. Repeaters have a short delay before transmitting. If you start speaking too soon, your first few words may not be heard. Make sure you have finished talking before you un-key the mike. Give your call sign clearly, and slowly.
- Use English and avoid jargon as much as possible. Q-codes are really a Morse code short hand. They have their place when voice communications are marginal. Say, "My wife" rather than the "xyl".
- Avoid falling into the habit of using cute-isms: "Roger Roger", "QSL on that"…
- Avoid phonetics unless you are asked to do so. When using phonetics, use standard phonetics. "Alpha, Bravo, Charlie"... etc.
- If you are listening and would like to have a conversation, just give your call sign. You can add "monitoring", or "listening". Using the term "CQ" on a repeater is generally discouraged.
- When you wish to communicate on a frequency, listen for a while before talking, there may be a conversation in progress.

Note: This is generally good info but some of the guidelines are subjective and may run counter to local practice.

Ham Radio Etiquette

- If you want to join into a conversation, just give your call between transmissions rather than using the term "Break Break". You will be acknowledged and allowed into the conversation.
- If you want to talk to a certain person, call their using their call sign once or twice, then your call sign.
- In an emergency, give your call and say "emergency" rather than using "Break Break". Saying "emergency" will make it clear why you are interrupting and it will also get more attention from those just listening.
- Make sure you ID (state your call sign) according to the rules, but avoid over ID'ing. If you are using a repeater system, the repeater has a timer so that it can ID every 10 minutes. Whenever you hear the repeater ID that is a good time to send yours. There is no need to send your call sign, then say "For ID". Your call sign IS your ID.
- It is generally frowned upon to "Ker-chunk" a repeater. That means keying up your radio for just a moment so that the repeater transmits, usually you hear the "courtesy beep" afterwards. This is also annoying to the repeater owners and control operators. If you want to make sure you are transmitting okay, make sure you give your call sign.

Have fun. These are just a few pointers to help you sound like an old pro. You will make friends. Do not be afraid to ask questions. We were all beginners at one time.

Note: This is generally good info but some of the guidelines are subjective and may run counter to local practice.

Repeater Etiquette

Starting a QSO via a directed call. There are two main ways by which a QSO can begin, one is via a directed call and one is via monitoring. A directed call is where one amateur calls another amateur individually, such as "N3XYZ from K3ABC". In such a case, K3ABC is looking for one particular individual, N3XYZ. It generally is not an invitation for anyone other than N3XYZ to return the call. If N3XYZ doesn't answer the call, K3ABC may just clear off by saying "K3ABC clear", or may clear and listen for other calls by saying "K3ABC clear and listening". The "and listening" or "and monitoring" implies they are interested in hanging around to QSO with anyone else who might be listening at that time. "Listening" and "monitoring" don't mean you are listening to somebody else's conversation, they mean you are listening for other people who may want to call you to start a new QSO. Likewise, just saying your call by itself with nothing following it is meaningless. If you were to say "N3XYZ", people listening wouldn't know if that means you were monitoring for calls, whether you were testing, or whether they missed the callsign of a party you were calling. Be concise, but be complete.

Starting a QSO via a monitoring call. If the repeater is not in use, simply stating your callsign followed by "listening" or "monitoring" implies that you are listening to the repeater and are interested in having a QSO with anyone else. Calling CQ on a repeater is generally not common, a simple "N3XYZ listening" will suffice. There is no need to repeat the "listening" message over and over again as you might do when calling CQ on HF. Once every few minutes should be more than sufficient, and if someone hasn't answered after a few tries, it probably means there is nobody around. If someone is listening and wants to QSO, they will answer back. Avoid things like "is anybody out there" or "is there anybody around on frequency"; it sounds like a bad sci-fi movie.

Repeater Etiquette

Joining a QSO in progress. If there is a conversation taking place which you would like to join, simply state your callsign when one user unkeys. This is the reason for having a courtesy tone: to allow other users to break into the conversation. One of the stations in QSO, usually the station that was about to begin his transmission, will invite you to join, either before making his own transmission. Don't interrupt a QSO unless you have something to add to the topic at hand. Interrupting a conversion is no more polite on a repeater than it is in person.

Interrupting a QSO to make a call. If you need to make a directed call to another amateur but there is already another QSO going on, break into the conversation during the courtesy tone interval by saying "Call please, N3XYZ". One of the stations will allow you to make your call. If the station you are calling returns your call, you should quickly pass traffic to them and relinquish the frequency to the stations who were already in QSO; don't get into a full QSO in the middle of someone else's conversation. If you need to speak with the party you call for a significant length of time (say, more than 15 seconds), ask them to either wait until the current QSO has cleared, or ask them to move to another repeater or simplex channel to continue the conversation.

Repeater Etiquette

Roundtables and "Turning it Over". When more than two amateurs are in a QSO, it is often referred to as a "roundtable" discussion. Such a QSO usually goes in order from amateur A to amateur B to amateur C and eventually back to amateur A again to complete the roundtable. To keep everyone on the same page, when any one amateur is done making a transmission, they "turn it over" to the next station in sequence (or out of sequence, if so desired). Without turning it over to a particular station when there are multiple stations in the QSO, nobody knows who is supposed to go next, and there ends up either being dead silence or several stations talking at once. At the end of a transmission, turn it over to the next station by naming them or giving their callsign, such as "...and that's that. Go ahead Joe." or "....and that's that. Go ahead XYZ." If it's been close to 10 minutes, it's a good time to identify at the same time as well, such as "...and that's that. N3XYZ, go ahead Joe."

IDing and Who's Who? By FCC regulations, you must always identify at 10 minute intervals and at the end of a transmission. If you are making a test transmission or calling another party, this is a one-way transmission. Since it has no "length" as there is no QSO taking place, you should identify each time you make a call or a test transmission. When identifying yourself and another party (or parties), or when making a directed call, your callsign goes LAST. "N3XYZ, K3ABC" means that K3ABC is calling N3XYZ, not the other way around. There is no need to identify each time you make a transmission, only once every 10 minutes. You do not need to identify the station with whom you are speaking, only your own callsign, but it is generally polite to remember the call of the other station. Avoid phonetics on FM unless there is a reason for using them, such as the other station misunderstanding your callsign. When phonetics are needed, stick to the standard phonetic alphabet.

Repeater Etiquette

Demonstrations. From time to time, an amateur may want to demonstrate the capabilities of amateur radio to another non-amateur. The typical way to do this is to ask for a "demo" such as "N3XYZ for a demonstration." Anyone who is listening to the repeater can answer them back. Usually telling the calling party your name, callsign, and location is what they are looking for, not a lengthy conversation. Someone doing a demo may ask for stations in a particular area to show the range of amateur radio communications, such as if the calling station is in the Poconos they may ask for any stations in south Jersey or Harrisburg areas, which is more interesting than demonstrating that they can talk to someone in the same town as they are in.

Signal Reports. If you are unsure how well you are making it into the repeater, DO NOT kerchunk the repeater. Any time you key up the repeater, you should identify, even if you are just testing to see if you are making the machine. "N3XYZ test" is sufficient. Do not use the repeater as a "target" for tuning or aiming antennas, checking your transmitter power, etc. Use a dummy load where appropriate, or test on a simplex frequency. If you need someone to verify that you are making the repeater OK, ask for a signal report such as "N3XYZ, can someone give me a signal report?" "Radio check" is a term most often used on CB, "signal report" is what most amateurs ask for.

Repeater Etiquette

Language. Aside from some of the techno-syncracies inherent in amateur vernacular, use plain conversational English. The kind of English that would be suitable for prime-time television, not R rated movies. Avoid starting or encouraging conflicts on the air. If a topic of conversation starts to draw strong debate, change the subject. Avoid "radio-ese" lingo whenever possible. CB has its own language style and so does amateur radio, but the two are not the same. Amateurs have "names", not "personals". Although many new hams have graduated from the CB ranks, let's try to keep CB lingo off the amateur bands.

When visiting a new repeater, take some time to monitor before jumping in to get a feel for the type of traffic and operating mannerisms of that particular system. Some repeaters are very free-wheeling in that there are people jumping in and out of conversations constantly. Others primarily have directed calls on them and discourage ragchewing. Others are member-exclusive repeaters. Listen before you talk, when in Rome do as the Romans do.

Emergencies. If there is a QSO going on, break into a conversation with the word "Break" or "Break for priority traffic." DO NOT USE THE WORD BREAK TO JOIN IN A QSO UNLESS THERE IS AN EMERGENCY! All stations should give immediate priority any station with emergency traffic.

Repeater Etiquette

Malicious Interference. If there is malicious interference, such as kerchunking, touchtones, rude comments, etc. DO NOT ACKNOWLEDGE IT! Continue the QSO in a normal fashion. If the interference gets to the level where it is impossible to carry on the QSO, simply end the QSO as you normally would.

Power. Use the minimum power necessary to complete a QSO. However, the minimum power necessary doesn't just mean you are barely tickling the repeater receiver squelch. If someone says that you are noisy, increase power or relocate or take whatever measures you can to improve your signal. Continuing to make transmissions after being told your signal is noisy is inconsiderate to those listening. The amateur radio manufacturers continue to come up with newer, smaller handheld radios, many with power levels well under a watt. Many new amateurs start out with a handheld radio as their "first rig". Although convenient, they aren't the most effective radios in terms of performance. Without a good external antenna, operating a handheld radio indoors or inside a car is going to result in a lot of bad signal reports.

Must-Read Repeater Article

We use local VHF/UHF repeaters for training nets, events, deployments, and general communication. Yet many hams do not fully understand repeater operation.

We really should know our most-used system. This article on FM repeater operation is from QST magazine, February 2015, pages 82-83:

http://www.nxtbook.com/nxtbooks/arrl/qst_201502/index.php#/84

(Must be ARRL member to access)

It is a fabulous write-up because it is a thorough--yet easy to understand--description of how repeaters work and how they are commonly used.

Learn about transmit & receive frequencies, duplex vs. simplex, offsets, coordination, access tones, squelch, courtesy beep, timeout, linking and more. All ADRN hams should have their own copy for reference.

Credits

- This presentation is partly derived from a document originated by Yavapai County ARES/RACES and shared by Williamson County ARES.

- Ham radio etiquette section derived from November 2003 Grounded Grid newsletter, Wichita, KS Written by Bob McHugh, N4BM

- Repeater etiquette section is copied from similar postings on multiple websites, origin uncredited.