Buchanan County Communications

Public Safety Radio System

Radio Regulations and Etiquette

FCC Regulations

- **FCC**
  - Allocates and monitors US radio frequencies
- **For radio, the FCC:**
  - Issues licenses
  - Allocates frequencies
  - Establishes technical standards
  - Establishes/enforces rules/regulations for radio equipment operation

FCC Regulations

- Can only transmit on frequencies:
  - Have a license for
  - Have a use agreement for
  - Use is provided for in FCC regulations

Rule Number 1

- If you own or operate a radio communications system then you must follow the Federal Communications Commission Rules and Regulations.

- Failure to do so could result in fines, forfeitures, or imprisonment.

- Public Safety and Public Service operate under FCC Rules and Regulations, Part 90 primarily.

So what does that mean to me?

- You must have a valid FCC license.

- Exception - Police surveillance, 2 watts or less, approved by frequency coordinator

- Exception - You use a radio system owned and operated by another public safety agency or commercial vendor.

Rule Number 2

- **Never, ever let your license expire**
  - All departments now covered under county wide licenses.

- Renewal of your FCC license, without technical changes, costs nothing and can easily accomplished over the internet. Minor changes may be made over the internet such as phone #, contact person, etc.

- Once your license expires, your frequency is up for grabs.

- Once your license expires, then you have to pay the frequency coordination fees.

Rule Number 3

- If you move your radio site, dispatch office, increase the antenna height, increase power, etc., you need to file a license modification. Keep your license current.

Other Rules to Know

- You need to use your FCC Callsign or have it automatically transmitted. (90.425)

- The FCC requires periodic radio equipment checks (90.215)

- Post your FCC license at the transmitter site (90.437)

Your Licenses

- Buchanan County takes care of license for:
  - ❑ Fire Station
  - ❑ Mobiles
  - ❑ Handhelds
    - For the main operational channels used in the county.
- Agreements takes care of license for:
  - ❑ Adjacent jurisdictions. County has them in place.
- Any other channels each agency must take care of themselves.
- If unsure how a channel is licensed, ASK!

Radio Etiquette

- Radio is a command and control tool.

- It is used to pass information across great distances and make coordination of resources possible.

- Like any other tool, it can be misused.

- Here are a few "rules" that will help you from falling into the misused trap.

Radio Etiquette

- Good radio etiquette demands that all users limit their communication to essential radio calls only.

- Consistency is important! Everyone communicating the same reduces mistakes.

- Listen to radio communication that may indicate special instructions needed in your area.

- Keep your radio with you at all times.

- Avoid stepping on other transmissions.

- Avoid "keying" your microphone (PTT held down)

Radio Etiquette

- Use "Clear Text" only, no 10/12 codes. Clear text is simply plain English.

- Keep transmissions short and concise (to the point).

- No cussing/swearing etc.

- Maintain a professional attitude while talking on radio.

- Think before you speak (ums, dead air is annoying and frequencies are getting busy).

- Keep radio off your face when you speak, your message will be unreadable. Have radio a few inches away from your face when you speak.

- Speak clearly

Radio Etiquette

- State who you are calling first, then who is calling
  - ❑ "Buchanan County from Jesup Engine"
  - ❑ "Rowley Tanker from Independence Engine 1"
- If you are on a channel that you do not normally use state what channel you are on
  - ❑ "Buchanan County from Lamont First Responders on EM OPS"

Do's

- **Be brief and to the point.** When the race is on, stay off the radio unless absolutely necessary.

- **Listen before you begin your transmission**, and always wait a second before you speak after keying the push to talk button.

- **Speak directly and clearly** with an even tone into the microphone at a distance of 1-4 inches.

- **Acknowledge the receipt of all messages** directed to you regardless of how trivial.

Don'ts

- **Talk too much.** Only speak when absolutely necessary. Safety information must take priority.

- **Swear.** This is an open radio channel.

- **Shout into the radio.** Only distorts the resulting transmission.

- **Abuse the antenna.** Break it and you have an effective range of 10 feet.

Use Plain English - No "10-codes"

- Use location identifiers or function Title
  - ❑ "Net Control"
  - ❑ "210 Street Fire Command"
  - ❑ "Fairbank Officer"
  - ❑ "Buchanan County EOC"

Know What You Want to Say Before You Key the Mike

- Nothing makes people crazier than the guy who gets on the air and then spends a couple of minutes killing air time with er's, oh's, and-ah's, and other garbage that makes it plain he's making it up as he goes along in hopes that what he really needs to say will come to him.

Keep It Short and Simple

- Never, ever, never pack 5 seconds worth of information into 25 seconds.

- Don't use long/big words when a short and sweet one will do just as well (and probably better).

- Bad: Ah net control this is , canteen one, Ah yeah ah roger that ah net control - got a ah solid copy on your last ah transmission about that ah geographical location that we're ah supposed to be moving towards to ah, rendezvous ah, that is, ah, meet up with the ah, other canteen, Over

- Good: Net control this is canteen one
Copy
Out

Pause for Breaks Every Now and Then

- While you're droning your way through the Gettysburg Address someone may have something critical come up that really IS important and that needs to be said NOW, only he can't because some moron (you know the guy - you've all hear him!!) is hogging the air because he loves the sound of his own voice!

Remember the Whole World Is Listening

- Scanners abound. Make sure you realize that what you say will be public knowledge.

- All radio traffic is recorded.

Talk Across the Mike, Not Into It.

- Hold mike a couple inches away from your face.

- Avoid over modulating, and speak in a normal voice, at right angles "across" the mike instead of right into it. You'll be easier to understand.

Don't Shout. Speak Clearly Instead

- Shouting may feel emotionally satisfying, but it causes distortion and makes you harder to understand.

- Contrary to the opinion of some, shouting does not, repeat NOT, increase the range of any radio known to mankind.

Radio Regulations and Etiquette
Revision -

Emergency Radio Signals

- *These could save your life, or someone else's someday!*
- "Emergency Traffic" is used to report an emergency (on or off the fire ground, in or out of district).
- "Abandon" when ordered to "Abandon". Withdrawn IMEDIATELY to a safe area. Drop all tools, hose, etc. Roll call with be conducted to ensure all personnel are accounted for, Followed by 3 horn blasts and the Abandonment tones from SORC.
- "Mayday" is used by trapped or missing firefighters. Don't feel disgraced and shy to call a mayday. We don't want to be at your funeral cause you didn't.
- "Withdraw" is the calm and orderly withdrawal of personnel. Personnel will collect tools, hose, and equipment, then leave the fire area.
- "Evacuate" is NOT to be confused with "Abandon," "Evacuate is the removing of civilians from the area.

Need help?

- First, know what you need:

- Request specific resources if needed such as a single water tender, rescue, chief officer, etc.

- Example, "Buchanan County from Winthrop Command, requesting water tender respond to the scene."

Clarity of Transmission

- Many guidelines can improve clarity, such as:

  - Make sure the channel is clear.

  - Speak clearly and distinctly.

  - Keep calm and free of emotion.

  - Keep transmissions brief.

  - Use the NATO phonetic alphabet.

A	Alpha	J	Juliet	S	Sierra
B	Bravo	K	Kilo	T	Tango
C	Charlie	L	Lima	U	Uniform
D	Delta	M	Mike	V	Victor
E	Echo	N	November	W	Whiskey
F	Foxtrot	O	Oscar	X	X-ray
G	Golf	P	Papa	Y	Yankee
H	Hotel	Q	Quebec	Z	Zulu
I	India	R	Romeo		

Response to the Scene

- When a call is received, you should follow a standard method of communications.
  - Usually standardized for agency
- When first contacted by dispatch:
  - Record location and call information.
- After dispatch and recording information:
  - Respond that you received information.

Radio Regulations and Etiquette
Revision -

Response to the Scene

- A Standard Sequence
  - Tell dispatch you received the message and are responding to the alert.
    - Report number of people on board
  - Next transmission is your arrival on scene.

Response to the Scene

- A formal scene size-up/report on conditions from 1st in apparatus

  - Notify dispatch when you arrive at the scene.

  - Describe what you see

  - Establish scene command

  - Request additional resources, if needed

- Use of tactical frequencies

Radio Regulations and Etiquette
Revision -

Scene Size-up/ Report on Conditions

- **What do they want to hear?**
  - ❑ Correct location if differs from the initially reported location
  - ❑ Building and occupancy type
  - ❑ Fire Activity/Behavior
  - ❑ Exposures
  - ❑ Use of and what tactical frequency
  - ❑ Instructions for incoming units
  - ❑ Additional Resources if needed or canceling of excess resources

Common Fire Ground Identifiers

- Command
- Operations
- Safety (could be an interior and exterior safety on scene)
- Exterior (operations)
- Interior (operations)
- Ventilation
- Water Supply
- Exposure
- Medical
- Rehab
- Staging

©BRIANBASTINELLI2006

Radio Regulations and Etiquette
Revision -

Content of Transmissions

- Be brief, to the point, and professional.

- Guidelines include:
  - Protect the patient's privacy at all times.
  - Be impersonal.
  - Use clear text.
  - Question orders you did not hear/ understand.