

# Radio 101

## Techniques for the Field

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Although I've dedicated The Break Room to dispatchers, all members of the Public Safety community are welcome—and after all, the folks in the field are half of the reason our jobs exist, anyway. This section, while it may be extremely useful as a training review for communications personnel, is intended as a Primer For The Field Folks.

You see, field personnel – and law enforcement officers, particularly – spend nearly all of their Academy training on laws of arrest, physical methods of arrest, how to shoot, how to drive, how to do building and vehicle searches, how to write a report, yadda yadda yadda: All very important stuff for their jobs. They MIGHT be expected to memorize their agency's aural brevity codes and shown how the microphone works... but most of their radio training is On The Job—and provided by an FTO whose radio training was also received on the job.

Dispatchers, on the other hand, are trained to communicate on the radio. So we have an advantage over them in this arena.

I refer to this as the “They do Law Enforcement; We Do Radio” Syndrome. In THIS endeavor, we're the Professionals, so we're expected to know the techniques of proper broadcasting, all the methods of information exchange, etc. WE know it's more than “push to talk.”

So, here are some Radio Techniques for Field Personnel—a “primer,” if you will, of information to assist officers with effective communications via their radios.

### ~Handy Mnemonics~

mne-mon-ic \ ni-'mahn-ik\ *adj* 1: assisting or intended to assist memory. 2: of or relating to memory

### An Alphabet Soup - the “Nuts & Bolts”

#### **KHT = Key, Hesitate, Talk**

Using this technique will avoid “front end clipping” of your transmission. What is usually clipped or lost at the beginning of radio transmissions is WHO is being called or the radio identifier of the person CALLING, or sometimes the REASON for the transmission.

Simply depress the microphone key, hesitate to the count of “one thousand one” and then talk.

#### **SHR = Stop, Hesitate, Release**

Well, there's “rear end clipping” too, ya know. This technique will prevent that annoying loss of often vital information at the end of your transmissions.

#### **ABC - Accuracy, Brevity, Clarity**

The ABCs of radio communications relate directly to the composition of any message broadcast over the radio. Before transmitting a message, think about what you want to say and make sure you're presenting accurate information. Try to use short sentences with a single idea in each sentence; avoid “thinking out loud.” (Otherwise, everyone listening may very well get a really good view of your thought processes and that can be pretty scary, sometimes!)

If you lose your train of thought, or “talk yourself into a corner” stop transmitting! “Ummms” and “ahhs” sound unprofessional and should be avoided. Break your transmission with a “stand-by” alert, work out what you want to say, and start again. Basically, remember KISS, or Keep it Simple, Stupid.

Remember how Mom always said, “Don’t talk with your mouth full?” Well, in the radio broadcast environment, ANYTHING in your mouth will interfere with the clarity of your transmission. That means chewing gum, toothpicks, sunflower seeds, a cigarette, ANYTHING.

Don’t talk louder just because the Dispatch Center is farther away, either. Don’t mash the microphone up against your mouth; tilt it slightly at an angle and talk ACROSS the face of the transmitter portion (usually indicated by a grill-type effect on the body of the hand-held radio or the remote microphone). If you’re dealing with a lot of outside or background noise, turn to FACE the source of the noise. This will put the sound on the “wrong” side of the microphone and your mouth on the “right” (or receiver) side. Don’t make the mistake of turning your back on the source of extra noises, because those sounds will funnel right into the microphone along with what you have to say.

Don’t shout. Don’t whisper. Speak in a normal, conversational volume. Trust me on this.

Shouting over-modulates the electronic circuitry and your message will be lost in a garble of noise. Whispering simply creates a susurrantion of sound and transmits no valuable information.

### **~How to initiate a radio conversation~**

“Hey you! This is me,” method of calling.

It is important that this order is observed. If the call is made the other way round, e.g. “Me, talkin’ at YOU,” the called unit (or dispatcher) is likely to miss the call-sign of the person initiating the call, since it is one’s own radio identification which first attracts a listener’s attention to the incoming call. If there are several units on duty and capable of using the radio at the same time, the listener (Comm Center) merely knows SOMEBODY called, and unless the dispatcher knows YOUR VOICE, chances are he or she won’t be able to tell which unit wants something. (Especially if you have a habit of clipping your transmissions...)

To illustrate this concept, consider the situation of someone entering a large, crowded room full of people, all involved in various conversations already in progress. You want to catch someone’s attention across the room, so you call THAT PERSON’S NAME first and wave your hand above the crowd, announcing your own name last. “Dispatch! this is Unit FourTwelve!”

“Pre-Alerting” Dispatch – tell us what you’re GOING to tell us

Don’t just call your Comm Center on the radio and blurt out what you’re doing and what you need, expecting the dispatcher to be able to catch it all just like that! Just as you may be driving down the road, intent on observing a violator in front of you, or deep in interrogation with someone, the dispatchers could be doing something ELSE when you need to tell them something or ask them to do something for you.

And that doesn’t mean simply calling the Comm Center and giving your radio identifier, then waiting for a response. “*Pre-Alert us as to what you’re going to need, so we can prioritize our tasks within the Comm Center.* Here’s an illustration from our personal lives that should explain what I mean:

“Mom!”

.... no response.....

“MOM!”

“Yes, dear, what is it?”

“Has the mail come yet?”

“No, it hasn’t.”

“Dad?”

“What.....I’m busy!”

“Can I have the car keys?”

“No.”

“Dad?”

“What?!?!?”

“Will you drive me to the hospital then, I’m bleeding pretty bad...”

Now, had Mom or Dad had some clue as to the nature of those inquiries before they were actually expressed, whatever Mom was doing would NOT have been interrupted at all (to reply to the inquiry) and perhaps Dad would have given immediate attention to the seriousness of the undisclosed situation.

It's the same with your Comm Center. We give YOU the chance to say "Stand by" - or stop what you're doing and tell us "Go ahead" when you're ready to copy, so you should be doing the same for *us*. Most importantly, it means we can give you our full attention ONCE WE HAVE PUT OTHER TASKS ASIDE, first.

Communications personnel already practice "telling the field what they're going to tell them" - they do it all the time. Here are some examples:

- "Unit 456, Dispatch - Information."
- "All units stand-by to copy BOL for Armed Robbery that just occurred....."
- "Motor 13, Center - Inquiry."
- "27-50, Monterey - Injury Accident."
- "321, Radio - your DL return when you're ready to copy."
- "Car 54 - Where are you?"

Basically, your dispatcher(s) should be pre-alerting you with at least three "categories" of circumstances:

1. *Inquiry* - We need to ask you a question (and chances are YOU won't need to write anything down...)
2. *Information* - We are going to tell you something you should know (but you don't necessarily need to write it down...)
3. *Detail* - We're going to dispatch you somewhere. (You'll probably have to pull over to write this down...)

So, if you're going to request something, tell us what to expect, first. Please?

The following is a small snippet of "generic" radio traffic - keep in mind that each agency has its own protocols, but this should give you an idea of the "Pre-Alert" concept at work.

"Dispatch, 680 back in service."  
"Copy 680, back in service."  
"Dispatch, 592 - please call the reporting party back and get a better location."  
"Copy 592, stand by."  
"Dispatch, 567, traffic stop."  
"567 go ahead."  
"567 on a stop, 3rd and Main, license 3ABS192, California."  
"Copy 567, 3rd and Main, 3ABS192."  
"592, Dispatch - there's no answer at the number provided."  
"592, copy."

..... time passes.....

"Dispatch, 567 - vehicle reg and California DL by number." "567, California 3ABS192 is clear, I have the reg ready when you need it. Go ahead with the DL."

Any time someone makes an inquiry into a criminal justice database, or a DMV database, the inquiry must be formatted the way the particular database requires such inquiries. This means the dispatcher has to select the method, format the inquiry and also handle other documentation tasks related to YOUR activity.

We can already be typing the inquiry into the computer as you provide us with the information, *if we know ahead of time how the information will be presented*. Otherwise, we have to scramble to write down what you said, document what you're doing, and format the inquiry to be processed by the computerized database.

Also, believe it or not, we aren't just sitting, facing the radio console, listening hard for every precious transmission. A great majority of Comm Centers handle more than one agency's communications services; many dispatchers are also call-takers at the same time they are working a radio, and your partners in the field

may have made a request for a phone call (see above “snippet” of radio traffic) or any of a zillion other tasks currently in progress when YOU make YOUR traffic stop or other radio transmission.

We can best serve your needs if we can get a hint of what it’s all about first, so we can juggle all the tasks and determine who gets put on hold, who is told to stand-by, and we can ‘set up’ our computer screens for your request before we tell you to “go ahead.”

Trust me, this is to provide the best service, not to annoy you.

If you practice “Pre-Alert” procedures, to tell us what you’re GOING to tell us, we’ll be better able to serve your needs without all those annoying “Repeat your location? (or the plate, or your unit number, or the whole thing!)” transmissions.

So, now you got our attention, whatcha gonna say to us??? Better yet, how will you be sure we hear and understand you?

### ~Aural Brevity Codes~

au-ral \ 'or-el\ *adj* : of or relating to the ear or sense of hearing

Despite common belief, aural brevity codes are NOT used for “secrecy.” There are NO “universal codes” either; not everybody uses “10-4” to mean the same thing, and that’s a code most folks think is fairly universal. This reality is one reason why dispatchers should never use radio or “signal codes” when speaking on the telephone to other agencies or when composing a written message for broadcast outside their own agency.

Aural brevity codes or radio signal codes are used because they ALWAYS MEAN THE SAME THING (within that agency) and it usually takes less air time or syllables to get a message across if the appropriate codes are used. There are 10-codes, 11-codes, 12-codes, 9-codes; I’ve run across a 14-code someplace, too! There is no reason to try to list the different codes and their variants here; the concepts you do need to understand and practice are:

1. Use the appropriate code, correctly
2. If you can’t remember the correct code, use plain speech. Don’t “wing it” or guess the code to use.
3. If you’re using radio signal codes, use the entire code: Prefix and the Suffix.

There are two parts to a radio signal codes: the “signal” that clues someone into the fact that a CODE is the next thing they are going to hear and need to understand (the Prefix), and the actual message content of the code (the Suffix).

It’s extremely common for some users to drop code prefixes and just use the suffix in radio conversations, because of the mistaken belief that the prefix isn’t necessary. It’s all one code or another, right? Why not simply drop those ever-present numerical prefixes? “It’s the danged 10 code so you don’t need to use all them 10s every time, do ya?”

*Wrong!*

Code prefixes help the listener switch his/her brain from casually scoping out “language” into “translate this important message” mode. The brain processes words and numbers differently, and while capable of switching back and forth in a rapid manner, some brief moments can be wasted while the switch is made from ‘æwords’ to ‘numbers’ if there isn’t any warning that the information is going to start arriving in a different format. (This same concept will be discussed at greater length when we get into how to broadcast addresses, VINs, DLs and other numerical information.)

Basically, you should use the whole danged code: the 10 and the 27. (Or whatever fits your circumstance.) Dispatchers who work for agencies that use the 10-code know exactly what I mean: units routinely ask for “27, 28 and 9” on a stop, instead of requesting “10-27, 10-28 and 10-29.” Seems kind of silly to use the “10” in all three of those codes in a row like that, right? (That’s the spurious rationale anyway.)

Well, if you drop a prefix once, in a combination request, pretty soon you'll be dropping the prefix for that code whenever you use it, even when it's the only request in a transmission. That's taking the "Brevity" of the Radio ABCs a bit too far... And besides, if you "can" drop THAT 10, why not others?

Well, do you hear dispatchers saying, "9?" instead of "10-9?" or "4" instead of "10-4" – it's not appropriate.

Use the entire radio signal, prefix AND suffix. It improves radio communications!

**~How to maintain an effective radio conversation~**

## **Phonetic Spelling - warn us first.**

There are two "phonetic alphabets" in use in public safety communications: the "International" and the one often called the "police" or "APCO" phonetic alphabet. (I find the latter label quite interesting, because APCO telecommunications courses opt for either one, depending on what YOUR agency chooses to use.) Anyway, if you need to learn either one, this isn't the place to find 'em.

However, you will find some hints here on how to use a phonetic alphabet as effectively as possible for the best understanding over the radio.

- Not everything needs to be "spelled phonetically."
- Generally, phonetic spelling clarifies a word or name; Jones and Smith don't need to be spelled for us.
- Not every single letter of a word needs to be spelled phonetically.
- The name "Smythe" is one example.... because it's not a common spelling of the name.
- Attempt to pronounce the word (or name) immediately prior to the phonetic spelling.
- If the name is all vowels, mostly consonants, or the word is in a language you mangle on a regular basis, skip the pronunciation attempt. (In other words, don't go for the comic relief effect... pronouncing the word first is supposed to help someone understand how it's spelled... not confuse them further.)
- **DON'T LAUNCH INTO A PHONETIC SPELLING WITHOUT TELLING US FIRST that you're going to be spelling something for us!**
- Both phonetic alphabets use *names* - either names of persons or things (commonly called a "noun") - and oddly enough, some subjects whose names you're attempting to spell are... well... on those lists.

As one dispatcher has said, "How many times have I typed George Robert... just to find out it's gonna end up to be Graciella Rodriguez or something!"

There are various ways to alert your dispatcher that you're going to be spelling something; some agencies prefer the term "I spell" while officers from other agencies often simply say something like, "*Last name 'St. Thomas,' phonetically: Sam Tom, new word - Tom Henry Ocean Mary Adam Sam.*" (Yes, I made that part up about an officer actually pronouncing the name first, but that is the ideal procedure.) In any case, if you don't warn the dispatcher about an upcoming phonetic spelling, you can derail their whole documentation attempt for a few seconds.

A few seconds is precious time in this business.

So, why do they STILL ask me to repeat what I've said?

## **Other Barriers to Communication**

Things happen fast in the Public Safety environment. The clock is ticking, fires are getting bigger by the second, oxygen-starved brains are dying, bad guys are getting further away. Get there, get there, get there – oh, and what's your ETA?

Radio waves travel at the speed of light – and even if they got to the dispatcher's end of the circuit without loss of signal, there is a living, breathing, writing and/or typing person there to interpret the transmitted information. (Trust me, your agency really doesn't hire Boxes of Rocks to work in the Comm Center!)

## **Rate of Speech**

## ~speaking vs writing~

I can talk much faster than you or anyone else can write. *Socanyou*. Trust me. But it ain't funny when either one of us does it, okay?

We - everyone, not just dispatchers - can understand the spoken word at a very fast rate, *in conversation*. However, most conversation is not critical information - nor is it carried on over the radio! Critical information needs to be provided more slowly for complete understanding and often for documentation purposes.

Talking faster on the radio does not necessarily get the message across faster. Avoid increasing speed in response to stress, excitement, or because everyone else on the channel is talking faster. The advantages of rapid delivery are completely lost if the message has to be repeated or the message is mis-heard.

Every dispatcher has a maximum work speed. If the traffic on the channel exceeds the dispatchers' limits, information will be lost, errors will be made, and field personnel may be placed in danger. When a channel is extremely busy, you may become aware that your dispatcher is repeating much more of the field unit radio traffic than s/he did earlier in the shift. This technique "paces" an overly busy channel, providing the following benefits:

- Obtaining confirmation of correct reception.
- Reinforcing the information in the dispatcher's mind by repetition.
- Preventing further units calling before the dispatcher is ready to take the next message.

Just as YOU expect to have information provided to you slowly enough so you can write it down, so does your dispatcher. Return the favor; Dispatch is "writing down" a whole lot more of what YOU say than you are of what THEY are saying!

Over the years, I've watched dispatchers deal with motor-mouthed field personnel rattling off numbers and letters far too fast for anyone to catch the information with any sense of security or accuracy. Two of the sometimes unfortunate circumstances which can result from this behavior are:

1. the dispatcher has to ask the officer to repeat the request and it's repeated just as quickly, so a request for another repetition triggers a very slow and deliberate "*try this, simpleton*" transmission (you can guess neither person at the ends of that exchange stay happy campers afterwards.)

OR

2. the dispatcher "runs" with the best guess on the request, makes a mistake and the officer has to repeat the information and they're both annoyed by the delay.

I've also watched dispatchers manage to get every single digit of a long, rapidly-transmitted request and give the return right back to the officer just as fast - or faster! - so the point is hopefully made that there IS a limit at which one's ears just simply cannot keep up. (Usually, this sort of "gotcha" game is extremely counter-productive. But it happens...don't let it happen to you.)

Don't run the risk of being told, snidely, that you'll have to repeat what you said because your dispatcher's "Speed Pen" was down...

## Emotions and Voice Tone

### Speaking of "gotchas..."

A calm, even tone of voice begets calmness. It's the same principle that proves panic breeds panic; both moods are contagious. It is important to avoid allowing emotion or excitement to affect your information delivery. A calm, steady voice can be a major factor in maintaining control during an incident where everyone is stressed and excited.

Dispatchers often think an officer's tone of voice, when under stress of the moment out there in the field, is directed to them. They think that anxious, annoyed, abrupt, or any other voice tone manifestation of "not a happy camper" means they're not happy with their dispatcher about something. Dispatchers will review the last few minutes, or hours of their shifts, in an attempt to figure out what the heck they did to tick off that officer. They don't realize that officers generally have NO idea how they sound over the air.

Field personnel have the whole panorama of visual cues, clues and evidence of situations that aren't going well for them. Dispatchers, on the other hand, have the picture they paint in their minds of the scene; and the brush they use to color those scenes is the information they receive over the radio – from you. Not surprisingly, how you say what you say to us picks up and carries an emotional flavor.

And so we sometimes get a bad taste in our mouths as we interpret the message you send.

If you wonder why your dispatcher is suddenly copping an attitude – and you sure don't need it NOW while you're dealing with that jerk in the field that's getting in your face right now – try to keep that irritation out of your voice and watch the attitude from the Comm Center abate. Your dispatcher thought you were ticked off at him/her! (I'm not saying it's okay for dispatchers to get all moody with you! I've just been around long enough to see the dynamic in action... kinda thought you might like a "head's up" or an explanation for it, that's all...)

On the other hand, there is a place for humour and personality in The (Public Safety) Radio World. An appropriate humorous or encouraging comment can be very valuable in reducing tension. These should, however, be used sparingly and *should be the exception rather than the norm*.

Remember that we're all here to do a job, not entertain each other – or the folks in ScannerLand. ANY voice on the radio is the voice of Your Department, and any comments made must never be offensive, derogatory or in poor taste.

Finer Points of information exchange.

Addresses, VINs and DLs.

- Addresses
- VINs
- DLs

CYMBAL (vehicle descriptions)

- Color.
- Year.
- Make.
- Body style.
- Additional information.
- License plate.

Suspect descriptions.

Status Changes.