“From the Shack”

February 2021 Newsletter

BY THE “TENS”-- a not so brief history of Ten-Codes. [Gleaned from WikipediA]

The development of the Association of Public-Safety Communications Officials-International (APCO) **Ten-Codes,** officially known as **Ten-Signals** began in 1937 to reduce use of speech on the radio at a time when police radio channels were limited. Credit for inventing the codes goes to Charles "Charlie" Hopper, communications director for the Illinois State Police. He had been involved in radio for years and realized there was a need to abbreviate transmissions on police bands.

Experienced radio operators knew the first syllable of a transmission was frequently not understood because of quirks in early electronics technology. Radios in the 1930s were based on vacuum tubes powered by a small motor-generator called a **dynamotor**. The dynamotor took from 1/10 to 1/4 of a second to "spin up" to full power. Police officers were trained to push the microphone button, then pause briefly before speaking; however, sometimes they would forget to wait. **Preceding each code with "ten-" gave the radio transmitter time to reach full power**.

Dynamotor Power Supply

[BY THE WAY, IT IS STILL A GOOD IDEA TO “KEY” YOUR MIC” FOR A SECOND OR TWO BEFORE SPEAKING, PARTICULARLY WHEN USING A REPEATER. IT GIVES THE REPEATER A CHANCE TO LOCK ON TO YOUR TRANSMISSION]

In 1954, APCO published an article describing a proposed simplification of the code, based on an analysis conducted by the San Diego Police Department. In the September 1955 issue of the APCO Bulletin, a revision of the Ten-Signals was proposed, and it was later adopted. In 1971 there was a push to replace the ten codes with “Clear Speech” using simple one or two words to replace those codes.

Ten-codes, especially "10-4" (meaning – understood – roger – acknowledged, etc.) first reached public recognition in the mid- to late-1950s through the popular television series **Highway Patrol, with Broderick Crawford** He would reach into his patrol car to use the microphone to answer a call and precede his response with "10-4".

Some ten-codes were adopted by CB radio enthusiasts and to a lesser extent, amateur radio operators.

In 1975, C.W. McCall's hit song "Convoy" depicting conversation among CB-communicating truckers, put phrases like "10-4" and "what's your twenty?" (10-20 for "where are you?") into common use in American English.

The 1978 movie, "Convoy", was loosely based on McCall's song, and further entrenched ten-codes in casual conversation. About 1979, APCO created the Phrase Word Brevity Code as a direct replacement for the Ten-code.

Recently, the popular TV show **"Blue Bloods"** has returned Ten Codes to public attention, however, the ten-codes used by the NYPD are not the same as those used in the APCO system. For example, in the NYPD system, Code 10-13 means "Officer needs help," whereas in the APCO system "Officer needs help" is Code 10–33.

There were one hundred "ten-codes" starting with 10-0 through 10-99. You can google the subject to find out more. Wikipedia has a great deal of information on this subject.

Today, public and amateur communicators are encouraged to use the ICS Clear Text Guide, [More on that below.

Replacement with plain language

While ten-codes were intended to be a terse, concise, and standardized system, the proliferation of different meanings can render them useless in situations when officers from different agencies and jurisdictions need to communicate.

In the fall of 2005, responding to inter-organizational communication problems during the rescue operations after Hurricane Katrina, the United States Federal Emergency Management Agency (FEMA) discouraged the use of ten-codes and other codes due to their wide variation in meaning. The Department of Homeland Security's SAFECOM program, established in response to communication problems experienced during the September 11 attacks also advises local agencies on how and why to transition to plain language, and **the use of ten-codes is expressly forbidden in the nationally standardized Incident Command System**, as is the use of other codes.

APCO International stated in 2012 that plain speech communications over public safety radio systems is preferred over the traditional 10-Codes and dispatch signals. Nineteen states had changed to plain English by the end of 2009. As of 2011, ten-codes remained in common use in many areas but were increasingly being phased out in favor of plain language.

In 1980, the **NATIONAL INCIDENT MANAGEMENT SYSTEM** published a document, **ICS Clear Text Guide**, which was another attempt to create a replacement for Ten-codes.

Today we use ICS Clear Text Guide.

Following you will find the guide for your reference.

ICS Clear Text Guide	
Procedure Word	**Meaning**
Unreadable	Used when signal received is not clear. In most cases, try to add the specific trouble. Example: "Unreadable, background noise."
Loud and Clear	Self-explanatory
Stop Transmitting	
Copy, Copies	Used to acknowledge message received. Unit radio identifier must also be used. Example: "Engine 2675, copies."
Affirmative	Yes
Negative	No
Respond, Responding	Used during dispatch - proceed to or proceeding to an incident. Example: "Engine 5176, respond ..." or "St. Helena, Engine 1375 responding."
Enroute	Normally used by administrative or staff personnel to designate destinations. Enroute is NOT a substitute for responding. Example: "Redding, Chief 2400 enroute RO II."
In-quarters, with Station Name or Number	Used to indicate that a units is in a station. Example: "Morgan Hill, Engine 4577 in-quarters, Sunol."
Uncovered	Indicates a unit is not in-service, because there are no personnel to operate it.

Out-Of-Service	Indicates a unit is mechanically out of service. Example: "Auburn, transport 2341, out-of-service." Note, when repairs have been completed the following phrase should be used: "Auburn transport 2341, back in-service, available."
In-Service	This means that the unit is operating, not in response to a dispatch. Example: "Fortuna, Engine 1283, in-service, fire prevention inspections."
Repeat	Self-explanatory
Weather	
Return to	Normally used by communications center to direct units that are available to a station or other location.
What is your Location?	Self-explanatory
Call ____ by Phone	
Disregard Last Message	
Stand-By	
Vehicle Registration Check	
Is ____ Available for a Phone Call?	
At Scene	Used when Units arrive at the scene of an incident. Example: "Perris, Engine 6183, at scene."

Available at Residence	Used by administrative or staff personnel to indicate they are available and on-call at their residence.
Can Handle	Used with the amount of equipment needed to handle the incident. Example: "Susanville Battalion 2212, can handle with units not at scene."
Burning Operations	Self-explanatory
Report on Conditions	
Fire under Control	
Emergency Traffic Only	Radio users will confine all radio transmissions to an emergency in progress or a new incident. Radio traffic which includes status information such as responding, reports on conditions, at scene and available will not be authorized during this period.
Emergency Traffic	Term used to gain control of radio frequency to report an emergency. All other radio users will refrain from using that frequency until cleared for use by the communications center.
Resume Normal Traffic	Self-explanatory

Maybe this is a good space to also talk about International Phonetics

As amateur radio operators we should use phonetics whenever necessary. It is an especially good idea to always use them when we ID our station and when calling another station. Give other stations the best opportunity to hear you clearly.

Speak slowly and distinctly whenever you are transmitting.

Remember, we want to be responsible radio operators!

ALPHA	NOVEMBER
BRAVO	OSCAR
CHARLIE	PAPA
DELTA	QUEBEC
ECHO	ROMEO
FOXTROT	SIERRA
GOLF	TANGO
HOTEL	UNIFORM
INDIA	VICTOR
JULIET	WHISKEY
KILO	X-RAY
LIMA	YANKEE
MIKE	ZULU

SHOCKING!

Today's scientific question is: What in the world is electricity and where does it go after it leaves the toaster?

Here is a simple experiment that will teach you an important electrical lesson: On a cool dry day, scuff your feet along a carpet, then reach your hand into a friend's mouth and touch one of his dental fillings. Did you notice how your friend twitched violently and cried out in pain? This teaches that electricity can be a very powerful force, but we must never use it to hurt others unless we need to learn an important lesson about electricity.

AMAZING ELECTRONIC FACT: If you scuffed your feet long enough without touching anything, you would build up so many electrons that your finger would explode! But this is nothing to worry about unless you have carpeting.

Although we modern persons tend to take our electric lights, radios, mixers, etc. for granted, hundreds of years ago people did not have any of these things, which is just as well because there was no place to plug them in. Then along came the first Electrical Pioneer, Benjamin Franklin, who flew a kite in a lightning storm and received a serious electrical shock. This proved that lightning was powered by the same force as carpets, but it also damaged Franklin's brain so severely that he started speaking only in incomprehensible maxims, such as, "A penny saved is a penny earned." Eventually he had to be given a job running the post office.

After Franklin came a herd of Electrical Pioneers whose names have become part of our electrical terminology: Myron Volt, Mary Louise Amp, James Watt, Bob Transformer, etc. These pioneers conducted many important electrical experiments. Among them, Galvani discovered (this is the truth) that when he attached two different kinds of metal to the leg of a frog, an electrical current developed and the frog's leg kicked, even though it was no longer attached to the frog, which was dead anyway. Galvani's discovery led to enormous advances in the field of amphibian medicine. Today, skilled veterinary surgeons can take a frog that has been seriously injured or killed, implant pieces of metal in its muscles, and watch it hop back into the pond where it sinks like a stone.

But the greatest Electrical Pioneer of them all was Thomas Edison, who was a brilliant inventor despite the fact that he had little formal education and lived in New Jersey. Edison's first major invention in 1877 was the phonograph, which could soon be found in thousands of American homes, where it basically sat until 1923, when the record was invented. But Edison's greatest achievement came in 1879 when he invented the electric company. Edison's design was a brilliant adaptation of the simple electrical circuit: the electric company sends electricity through a wire to a customer, then immediately gets the electricity back through another wire, then (this is the brilliant part) sends it right back to the customer again.

This means that an electric company can sell a customer the same batch of electricity thousands of times a day and never get caught, since very few customers take the time to examine their electricity closely. In fact, the last year any new electricity was generated was 1937.

Today, thanks to men like Edison and Franklin, and frogs like Galvani's, we receive almost unlimited benefits from electricity. For example, years ago scientists developed the laser, an electronic appliance so powerful that it can vaporize a bulldozer 2000 yards away, yet so precise that doctors can use it to perform delicate operations to the human eyeball, provided they remember to change the power setting from "Bulldozer" to "Eyeball”.

CALENDAR ITEMS

• Our February "Fox Hunt" will be held on the 13th, beginning at 0800 hours local and running until 1200 hours local. This will again be a "virtual fox hunt". Locate the fox virtually from your location, by triangulation, or drive and walk to locate the fox. Send your results to our email address tville.hamnet@gmail.com

• We need more of you to volunteer to call the net. Let us know when you can be "net control" by email at tville.hamnet@gmail.com

Website address www.taylorsvillehamnet.org

73

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Rulon Swensen, K7BTU

Sorry, John is not here. He went to the "swap meet" to sell some of his extra radio equipment.

OH WAIT, sounds like he's pulling in the driveway right now. He'll be with you in just a minute.