

# W9JOZ

Volume 1, Issue 4

July 2008

## The President's Corner

### The President's Corner

Well it's July already and we are in the full swing of ham fun. Field day is behind us and the summer is just getting started. Maybe with all the fairs and festivals around, we should all consider advertising Amateur Radio. We all have badges and hats with our call signs on it and don't forget the Tee shirts that we made with the club name on it. It might be a good idea if we wear these when we go somewhere.

Our club has grown to 34 members now; we have been getting some publicity in local newspaper and in the ARRL QST. So the word is getting out about us but it's not the time to relax. In the next few months we are going to be in a parade and doing special events. Hopefully we can get the word out about our club and what we can do so everyone will know that Ham Radio does exist in Starke County and what we can do. Our county already is benefiting from ham radio do to Skywarn and we should let them know that. Many of the alerts and warnings are initiated by us through the National Weather Service. So with that keep up the good work.

CU at the meeting  
Tony W9AL

## July Meeting

The meeting will be held at the Starke County Public Library in Knox on Wednesday the 17th. Agenda: Technical Night.



**Bring a radio that you are having trouble with the programming and we will attempt to teach you how to program it in a very short time.**

**It is imperative that you know how to set the frequency, the p. l. tone, and offset in a few seconds in an emergency. Can you do it? If not, maybe we can teach you how before the night is over.**

### Members for 2008

The following are the only paid members for 2008.

WB9L-Mike	KC9HUB-Roy	KC9NFC-Dan
WB9CAO-Levi	N9CPX-Randy	KC9MFC-Joe
W3ML-John	KC9GKZ-Garland	K9CIV-Rich
KC9HUD-Dawn	WC2O-Bill	KC9KPG-Mike
N9LV-Mathew	AA9YQ-Joe	W9MTE-Ken
KB9GPW-Steve	KB9OLZ-	KC9MQD-Ken
WA9KRT-Don	W9AL-Tony	NR5F-Bob
KC9ISJ-Randy	KC9HUG-Janet	KC9JQO-Nancy
KC9ISI-Bob	N9QYK-Paul	KC9LUR-Pat
WA9NGO-Tom	WO0P-Hugh	KE9ML-Bryan
N9JU-Russell	N9LU-Lisa	
KC9MRS-David	KC9NFD-Joe	

**Remember to vote on Club plans you must be a paid member.**

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## Let's Go T-Hunting

by Joe Moell KØOV

**Here's an introduction to RDF contesting in southern California, updated from a paper originally submitted for Proceedings of the West Coast VHF/UHF Conference.**

VHF/UHF enthusiasts often install yagis and quads at their home stations. Many take them out on camping trips and use them on public service events. But did you know that some enjoy flying the freeways and beating the back roads with one hand on the steering wheel and the other on a rotating antenna mast?

Perhaps you have seen these hams on weekends, intently driving and turning their beams. What are they doing? They are competing in hidden transmitter hunts.

If you've never experienced one of these mobile radio direction finding (RDF) contests, you have missed some of the greatest excitement a ham can have. While there are several names for it such as "fox-hunting" and "bunny chasing," in southern California this sport is almost always referred to as "T-hunting."

Transmitter hunting seems to be one of the best kept secrets in ham radio, even though dozens of hams here consider themselves to be regular hunters. They range in age from the teens to the eighties. Besides keeping the coordinated two-meter hunt frequency (146.565 MHz FM) hopping, hunters love to hash over their exploits by the hour on their favorite repeaters.

The idea is simple: One or two hams take a transmitter, antenna, and some sort of distinctive audio source to a carefully selected spot, then make continuous or intermittent transmissions. Usually they remain stationary, though mobile "bunnies" are popular with some groups. Sometimes there are more than one "T" to be found. Surplus ammunition cans are often used as hidden transmitter enclosures. The hunters, as individuals or in teams, do their best to home in on the hidden station(s) with their mobile and portable RDF gear.

T-hunters think their events are more fun than any other ham contest. You get to meet and socialize with your competitors both before and after the event. Usually, you'll find out your score and how well you placed before you go home. You may encounter your competitors along the way, with opportunities to try to "psych them out" or misdirect them. (Hence the southern California maxim: "Never trust anything said by a T-hunter or hider.")

"Techies" like the thrill of finding the hidden T with gear they made themselves. They relentlessly work to improve their setups. Mystery lovers and dyed-in-the-wool contesters love the challenge, because every hunt is a fresh start to a new adventure. Your past performances are forgotten. It's just your team and your equipment against today's hider and the other hunters.

At some point, every ham will find knowledge of RDF techniques useful, because it simplifies such chores as finding a neighborhood source of power line interference or TV cable leakage. T-hunters here frequently are called upon to track down sources of "spurs," intermodulation and noise that can plague amateur (and sometimes commercial) repeaters.

RDF plays an important part in Amateur Radio self-policing. In many areas of the country, including southern California, there are standing agreements between Local Interference Committees and district FCC offices, permitting volunteer ham RDFers to gather evidence leading to prosecution in serious cases of malicious interference.

You have up to a dozen competitive hunt opportunities to choose from every month in Los Angeles, Orange, Riverside and Santa Barbara Counties. They are all different in some way, such as time or mileage scoring, day or night start, single or multiple transmitters, intermittent or continuous signal, wide or narrow boundaries. (Or perhaps there are no boundaries at all!) Most hunts are on two meters with FM signals, but there are occasional FM hunts on the 50, 223, 440 and 1200 MHz bands. There have even been hunts for Amateur Television transmissions on 434 MHz.

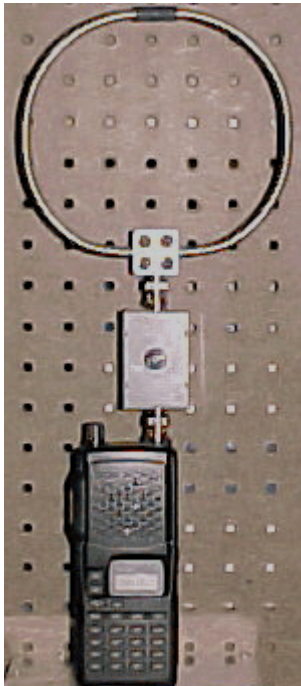
Continued on page 3

## SIDEBAR ARTICLES

### HOW WAS YOUR FIELD DAY EXPERIENCE?

LET US KNOW SO WE CAN ADD YOUR COMMENTS IN THE NEXT NEWSLETTER.

OUR OWN FOR SALE PAGE IS AT [WWW.W9JOZ.ORG](http://WWW.W9JOZ.ORG)



Loop antenna for Foxhunting with an HT.  
from Mike, Wb9L

There are many ways to score mobile T-hunts. Due to traffic problems, "First-In-Wins" hunts are less common than "Low-Mileage-Wins" hunts in southern California. Odometer calibration differences are resolved by requesting hunters to obtain an odometer correction factor by driving a standardized course in advance of the hunt. This correction factor is called the [Crenshaw Factor](#) because the course runs along Crenshaw Boulevard for approximately 9 miles.

T-hunters have become very sophisticated at finding dastardly hiding places. With the right combination of location and antenna, they make it difficult for hunters to get reliable bearings. Like a ventriloquist, a good hider can make the signal appear to be coming from some other location. With careful planning (and a little luck), the signal's characteristics can cause the hunters to approach the transmitter from the most difficult direction, with impassable roads or other obstructions, even though the T may be easily accessible via other routes. Perhaps the hider will camouflage the setup so well that the hunters won't find the transmitter unless they literally trip over it.

### How To Learn More

While commercial RDF equipment is available, the majority of southern California T-hunters prefer to build their own gear. All you need to get started is a directional antenna, an attenuator to knock down strong nearby signals, and a receiver with S-meter. You may have it all right now! If so, it will only take a bit of installation work on the family car to get you going.

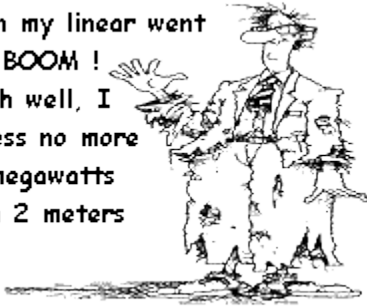
For equipment information, installation ideas, and hunting techniques, read [TRANSMITTER HUNTING---Radio Direction Finding Simplified](#) by KØOV and WB6UZZ, published by Tab Books (#2701). This book is available at many electronics and ham radio stores. It is also available by mail from ARRL Bookstore and [from the authors](#).

For a new ham radio adventure, try going out on a hidden transmitter hunt. Be prepared for some pleasant surprises. Remember, every time you set out on a hunt, you never know where you'll end up, and you never know what you will find.

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73  
Mike WB9L

and then my linear went  
**BOOM !**  
Oh well, I  
guess no more  
megawatts  
on 2 meters



And some hams  
bitch that  
**Morse Code**  
is slow!



Damn, I knew I  
should have  
brought my  
hand held.

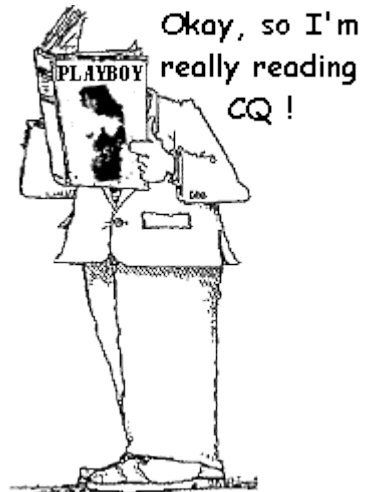


To DX or not to  
DX, that is the  
question



### You know you're a ham when...

- you find yourself mentally undressing your rig.
- you'd rather turn on your rig instead of your wife.
- your definition of high fashion is a baseball cap with your call letters on it.
- your shack actually begins to look like one.
- at a party, after you've told a joke, you say "hi hi".
- you're happy to be considered just another bean for the pot.
- your idea of sightseeing is checking rooftops for antennas.
- you check for your packet messages before you check your answering machine.
- you think carrying an HT is more of a status symbol than a cellular phone.
- you have the need to explain to someone that being a ham is not the same as being a CBer.



This page is for Tony, W9AL who said he missed the cartoons. Thanks VE3XAG for creating these cartoons to amuse Tony.



## "Can You V-F-T-O-M?"

By Wayne Barringer KB6UJW

The topic of radio operator proficiency frequently surfaces at some very predictable times throughout the year. Unfortunately, many of the times, the focus is a repeat topic from past years. I'm sure it doesn't happen everywhere, but it certainly seems to be a popular focus of discussions during annual exercises, training or any time radio operator proficiency is anticipated. For example, take passing messages between radio operators during a scheduled exercise. It seems as if every year, "someone" has to be reminded (usually on the air during the drill) to "slow down" (does this also happen in your area, too?) Why does it seem to be so hard to remember we can speak much faster than we can write?

Or how about the topic of being able to program your own radio! Is it only where I live, or does that also happen repeatedly where you live? I wonder, why is it so many of "them" seem to wait until the day of exercise to "test" out their skills levels...only to bring a renewed level of frustration or embarrassment to other participants who are prepared, ready and wanting to be professional?

Why does there always seem to be one or two radio operators who are willing to "show up" and ask others to program the radio they bring to the exercise?

Maybe this is a good time to pass on a simple reminder that each of us is individually responsible for our own preparedness, and how we conduct our radio operations.

Got a new radio recently? Or, maybe you've again discovered an old rig in the garage and want to test it out during Field Day? Here a simple "self-test" you can use to evaluate your own operator proficiency before you ever walk out the door.

V-F-T-O-M stands for:

1. Select the [V]FO mode
2. Program the desired [F]requency
3. Select the [T]one option
4. Program the offset, either "+" or "-"
5. Save it into [M]emory

V-F-T-O-M is an easy way to evaluate your familiarity with your own equipment "before" you even leave the house. Either way, learning and practicing V-F-T-O-M will go a long way to reducing the chance that you will be the one to show up, carry your radio up to the group, and ask, "Does anyone know how to program my radio?"

Submitted by Tony W9AL

## Fox Hunting Tips

Just because you don't have a radio or other equipment required for fox hunting, doesn't mean you can't have fun too. Team up with someone else, you can help with map navigation or even driving. This will allow you to learn some of the tricks and techniques used by others. If you have a portable radio or scanner but no antenna or attenuator – then you can get involved in the hunt by trying a few of these tricks.

- Take off the antenna to reduce the signal strength of the fox when it becomes strong, or if that's too much of a decrease, try a small nail or piece of wire for an antenna. You just need enough signal strength to get a mid-scale reading on your meter.
- Next try "body fade" to determine what direction the fox is transmitting from. This involves placing your radio receiver close to your chest and slowly turning around until you find a minimum signal strength from the fox. You now know that the hidden transmitter is behind you, since it was your body getting in path of the signal that caused it to decrease.
- You can determine when a signal is weakest by listening to the amount of noise on the signal – full quieting into your receiver means strong and lots of "hiss" means weak. Often the squelch will cut off the audio when it is weak, this can also be useful.
- Variations on the "body fade" method are to use a rectangle of cardboard with aluminum foil glued to one side. Hold your handheld up against it so that the foil is blocking the direct path from the fox transmitter to your radio or rubber duck antenna. Then slowly turn around until the foil "shield" blocks the maximum amount of signal. Another idea is to place your handheld inside a large metal can with only one side open to let in the RF.
- If you are close to the fox, the signal may be just too strong to reduce it to a half scale reading on your S-meter. If this is the case, try tuning your receiver off frequency 5 KHz (higher or lower). You can also tune to your receiver's less sensitive image frequency.
- In cases where the strong transmitter RF is finding its way into the receiver through its plastic case, try wrapping the radio in aluminum foil (just make a small hole so you can see the signal strength meter), making sure the foil is in good electrical contact with the grounded part of the radio's antenna connector. You should tape over any battery charge contacts on your battery pack first. This will work as an RF shield so that the signal will have to enter the radio through the antenna connector.

73

Mike WB9L

## What is The American Radio Relay League?

Founded in 1914, the 156,000-member American Radio Relay League is a microcosm of the Amateur Radio community, not only reflecting a commitment to the many enthusiasms of hams, but also providing leadership as the official voice of Amateur Radio, whether in dealings with the Federal Communications Commission, the World Administrative Radio Conference, the International Amateur Radio Union, or with the general public. Indeed, many of the most knowledgeable hams believe that, as competition grows for increasingly scarce radio spectrum, the future of The League is the future of Amateur Radio.

Welcome to the only national organization representing Amateur Radio in the US. As an ARRL member you support the ranks of thousands of other ham radio enthusiasts shaping the Amateur Radio service today. If you consider yourself an active ham... you need ARRL now. If you are not presently an active ham... let ARRL help you.

As a member of the ARRL, for as little as \$39.00 per year, here are some of the benefits you will enjoy:

- *QST* Magazine – your monthly membership journal
- Online Services –
  - Email forwarding
  - E-Newsletters – delivered to your inbox
  - *QST*, *QEX* and *NCJ* article index
- A voice in the affairs of ARRL and ham radio through locally appointed volunteers
- Publication Specials and on-line course discounts
- Emergency Communication Services
- Technical and Regulatory Information Services
- Operating Awards
- Ham Radio Equipment Insurance Plan Available
- Outgoing Foreign QSL Service
- Plus much more!

Take the next step in being an active participant in the future of ham radio. Join the ARRL today!

Go here to sign up or see your Club officers to sign up through the Club: <https://www.arrl.org/forms/membership/>



### Repeater Etiquette By: Ken KB1KVL

**Ken Kavaljian KB1KVL** wrote the following Repeater Etiquette article for the Genesis club newsletter by summarizing a great list of Repeater Etiquette and Tips gathered by **David K2DBK** and published at [www.10-70.org/repeater.htm](http://www.10-70.org/repeater.htm) **Ken KB1KVL** is referring to the new Plymouth REPEATER. Thanks **Ken KB1KVL** for sharing this article with the Whitman Club members.

**By: Ken KB1KVL** First and foremost let me say ham radio is a lot of fun, however we still need to adhere to certain guidelines and that's all this is - so by all means have fun and please read on! One of the best things a new ham could ever do is listen to the repeater for a while. What I mean by this is listen to the way people conduct themselves, get a "feel" for the way folks who've been around for a while use the repeater.

#### Listen Listen Listen

I can't stress this point enough, when you get "scolded" for the way you use the repeater it might hurt your feelings and that is not usually the intent, it's only to help you understand how to use the repeater so if you listen for a while and learn some of the ways the "regulars" use the repeater you most likely won't get "scolded" for the way you use it.

#### Kerchunking

Please don't key your mike to check for a return carrier from the repeater. Observe the rules and identify yourself when you transmit. It can be as short and simple as: "**This is KB1KVL, testing, no response necessary.**" Let's set a good example and practice good operating procedures. Besides if all you're going to do is check to see if the repeater is there, you'll find out when someone talks, besides, if the repeater is down what can you do about it...nothing, so what is the point!

#### Listen before transmitting

One of the most important rules is **LISTEN FIRST**. Nothing is more annoying than someone that "keys up" in the middle of another conversation without first checking to make sure the repeater is free or having the volume turned down and not checking, open your squelch to make sure your radio's volume is turned up. If the repeater is in use, wait for a pause in the conversation and simply announce your call sign and wait for one of the other stations to acknowledge your call.

#### Signal Reports

Don't break a conversation just to get a signal report, it's rude! Wait until the conversation is done then ask for a radio check. When you are looking for a signal report, the right way to do it is to say something like (obviously using your own call instead of mine) **KB1KVL** looking for a signal report", not "**KB1KVL listening**". Saying "listening" or "monitoring" implies that you're listening to the repeater and would like to chat with someone.

Often, there will be others "lurking" who might be willing to jump onto the radio to give out a signal report, but won't answer a general "listening" call because they might not want to get involved in an extended conversation. Unless you have actually made some changes to your station, you may find that folks will tire of responding to you if you ask for a report day after day (or more often).

If you're responding to a signal report request, make sure you're giving accurate information.

If you can't hear the repeater itself well, it will be difficult to report back accurate information to the other station. Remember that the information that's useful is how the other station sounds coming into the repeater, not how the repeater itself sounds.

### Repeater Etiquette Cont: By: Ken KB1KVL

Since the repeater itself should be more or less constant to you, you're just helping the other station figure out how well they are making it to the repeater.

#### Jammers or annoying users

If you hear a jammer, ignore him/her. Resist the temptation to "set the jammer straight." Don't acknowledge their presence in any way. Anything you might say about it probably doesn't belong on the band and may contribute to the problem. If the jammer has no audience, he or she won't have any fun and will soon be gone. Besides its not your job to do this, it is the responsibility of the control operators to babysit the repeater, let them do their job.

#### Leave a pause

When you are using the repeater leave a couple of seconds between exchanges to allow other stations to join in or make a quick call. Most repeaters have a "Courtesy Tone" that will help in determining how long to pause. The courtesy tone serves two purposes. Repeaters have a time out function that will shut down the transmitter if the repeater is held on for a preset length of time (normally three or four minutes). This ensures that if someone's transmitter is stuck on for any reason, it won't hold the repeater's transmitter on indefinitely. When a ham is talking and releases the push-to-talk switch on their radio, the controller in the repeater detects the loss of carrier and resets the time-out timer. When the timer is reset, the repeater sends out the courtesy tone. If you wait until you hear this beep (normally a couple of seconds), before you respond, you can be sure that you are pausing a suitable length of time. After you hear the beep, the repeater's transmitter will stay on for a few more seconds before turning off. This is referred to as the "tail". The length of the tail will vary from repeater to repeater but the average is about 2 or 3 seconds. You don't have to wait for the "tail to drop" before keying up again, but you should make sure that you hear the courtesy tone before going ahead. Note: If you don't wait for the beep, the time-out timer will not reset. If you time-out the repeater, HAMS that are listening may expect a free coffee from the offender. Limit your time on a given repeater to within reason. (This can vary a great deal and will depend upon the circumstance, but rag chewing for several hours straight is NOT recommended as a friendly practice!) Waiting for the courtesy tone before transmitting also has another good reason. This allows time for other stations to break in, and allows the system to reset but most importantly it allows users with emergency traffic to get in. Just put yourself in their place, what if you were mobile and had an emergency but couldn't get into the repeater because everyone was "quick keying" and not allowing you to get in.

#### New or unfamiliar calls

Talk to strangers once in a while. (Many HAMS, all good people, sometimes slip into a habit of not talking with anyone they don't already know when operating FM repeaters. They forget that this is not what they do when on HF!) Again put yourself in their place, remember back when you were a new HAM and how intimidated you felt, then to have someone not even acknowledge you on the repeater. Let him/her know they are being heard and strike up a small conversation, it will make a huge difference.

#### When NOT to Use a Repeater

Use simplex channels when they make more sense. When you live close to each other or are in the same area where simplex works better, don't tie up a repeater with just gossiping. Repeaters are for contacts that are separated by a long distance.