



# SARA Newsletter

January 2004

Shreveport Amateur Radio Association

## Meeting:

First Thursday of each month at 6:30 P.M. in the Bossier Main Library History Center

## SARA Net:

Each Wednesday evening at 8:30 P.M.

## Local Amateur Information

Available at:

[www.qsl.net/nwllarn/](http://www.qsl.net/nwllarn/)

## SARA Repeaters:

145.050 - K5SAR  
DX Packet Cluster  
145.110 - N5FJ  
146.700 - K5KDO  
146.820 - K5SL  
440.900 - N5FJ

## 2004 Club Officers

President – [David Crosby, K5SRZ](#)  
Vice President – [Glenn Pettiet, K5TGP](#)  
Treasurer – [Randy Fulco, K5SL](#)  
Secretary – [Laura Webb, KD5IHT](#)

## DF'ing - A fun useful tool

At the last club meeting I set the first Saturday of March around 9:45 AM for a transmitter hunt. We will meet in the Bossier City Main Library parking lot, and it should take around an hour and a half. I will give a quick talk on building and operating a simple DF setup for your 2 meter rig.

Transmitter hunting consists of using a directive antenna system to determine a peak or null in the direction of the signal in question. Multi element yagis can be used or out of phase verticals also work well in the VHF range. Another system is the Doppler system. It uses a circular array of antennas. The electronics involved can be complex. Basically, the system uses the “doppler” effect to measure signal path parameters to determine where the signal is actually coming in from. The benefit of the Doppler system is that it works better with a stronger signal, and multi-paths are not a hindrance. The point and null/peak method usually results in signal saturation, and the antenna cannot compensate. The answer to this is to use “step” attenuators to throw in enough attenuation to keep the signal in the range the receiver (S meter) can use.

Most shop attenuators work nicely and can usually get near 100db in signal attenuation. Depending on transmitter power, and antenna-this usually will put a 25 watt mobile rig in shouting range. A good shielded receiver is a must. The older analog meters work best in DF'ing as the meter has much more accuracy.

The antenna I use (along with W5ZA and others) is straight out of the ARRL handbook. I have been transmitter hunting since my days at La Tech in the late 70's. The Ruston Ham club has transmitter hunts every couple of months. We had a great time, but used a simple loop made of coax on a PVC mast. It worked but not too well when close. Dr. Dave Cowling our club sponsor made one of the first Doppler systems out of QST and would find them in 20 or so minutes. Ruston isn't so big, but he could drive right to them. In the late 80's the double out of phase verticals came out in QST. The big plus to this antenna was it has a very sharp null around 60+ db as is. This antenna could be built from a trip to Radio Shack and the hardware store. Couple it with a good step attenuator and you could give the Doppler system a run for the money. Actually, to find a stuck transmitter on the 147.03 repeater during a hamfest here in town. Steve W5ZA and I beat a ham to the transmitter who was using a Doppler system. He was a block away, but 1<sup>st</sup> is 1<sup>st</sup>. (The look on that out of town hams face when we told him he had left his mic keyed was worth the hunt!)

Steve, W5ZA and I use the same antenna with slightly different methods. I prefer to use my compass, protractor, with a city map. I get bearings and mark them on my map in pencil. Then I “triangulate” with a few more bearings on the map. These usually are very good taken from a clear location a distance away. I usually don't need much attenuation till very close.

Steve, like to drive close and then use his attenuator. He seems to get there very quick. I have learned a good map is essential. It is amazing how many new roads come up, or how you will end up on a dead end only to see another street through the woods.

DF'ing can serve to find an accidentally keyed radio, or anyone deliberately jamming a frequency. This person usually is a very insecure, and needs attention. Shreveport Bossier is a large enough metroplex that most homebrew 2 meter yagi antennas can get a good bearing on a transmitter in other parts of town. Also whether or not you can even hear the signal on your vertical, or handi-talkie is important. If this happens, quietly get a good bearing and get together with other hams on the phone.

The dumbest thing I hear are hams getting on and saying, “Someone has their Mic keyed” over and over while this person is transmitting. How does this person hear this if they are

transmitting? Duh??

Also, if it is deliberate jamming, don't give this small person what they want -attention--. Don't give a jammer any recognition and he will go away. Spend your time getting good information. I have seen 3 hams (KC5TMV, KC5OHO, and one other) use their home yagis to get a transmitter bearing to within 2 blocks from miles away. Randy N5WV found him with a handi-talkie without an antenna a day later.

The stories go on and on...

Transmitter Hunting is a practical and fun. A planned transmitter hunt is something kids and family members all can enjoy. It is like a treasure hunt. Actually, not to far off on this one coming up, as I have secured a \$30 gift certificate to Red Lobster/Olive Garden for the winner... Randy K5SL

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## SARA - Krewe of Centaur Parade Support

If you see these folks, tell them thanks for helping with the parade on February 14. They are helping give amateur radio and SARA a good name. Many thanks to everybody and we can still use more volunteers. Call KH2DF, Rick, on the 146.82 repeater or at home if you have any questions.

KI5HR - George  
KH2DF - Rick  
KD5UVL - Lindsay  
N5PFZ - Richard  
N5VAL - Dwayne  
KD5UQL - Guy  
N5FJ - John  
AD5CN - Chris  
KD5IHT - Laura

KC5FLN - Tim  
KC5VUE - Bill  
KD5LKB - Fran  
KB5PKW - Bill  
KB5LE - John  
KD5ZRA - Vicky  
KD5LSM - Nat  
W5VWE - Irv

### PLEASE NOTE:

All radio operators should meet at the den on February 11<sup>th</sup> for the driver's meeting. This is located next to Red Ball Oxygen on North Market Street in Shreveport.

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## Transmitter Hunting

Transmitter hunting takes just a few easy steps. In the most basic of explanations, here are those steps.

- 1). Using some sort of directional antenna, determine the bearing of the signal.
- 2). Using a compass, get the degrees to the bearing, including any magnetic deviation for your area.
- 3). Plot the bearing onto a map, drawing a line from where you are now.
- 4). Drive that line as closely as possible, monitoring and stopping periodically to take additional bearings to ensure you are headed the right way and/or getting closer. Stay on your initial bearing!
- 5). When you close in, slow down. Whether you are using Doppler or other direction finding gear, make decisions only after confirming they are right. DO NOT jump to conclusions like "I'll bet he's in the park!" They never are.
- 6). Use close in gear to 'sniff' on foot and get the signal source pinpointed.

Here are a few web sites that can give you more information (Thanks Carl, KB5WMY).

<http://members.aol.com/homingin/>

<http://www.dxzone.com/cgi-bin/search/frame/FrameIt.cgi?Url=http://www.dxzone.com/cgi-bin/search/jump.cgi?ID=4858&ID=4858>

<http://www.dxzone.com/cgi-bin/search/frame/FrameIt.cgi?Url=http://www.dxzone.com/cgi-bin/search/jump.cgi?ID=4860&ID=4860>

<http://www.dxzone.com/cgi-bin/search/frame/FrameIt.cgi?Url=http://www.dxzone.com/cgi-bin/search/jump.cgi?ID=7584&ID=7584>

<http://www.eham.net/reviews/products/50>

<http://www.eham.net/reviews/detail/1443>

[http://home.att.net/~jleggio/projects/rdf/tape\\_bm.htm](http://home.att.net/~jleggio/projects/rdf/tape_bm.htm)

<http://www.mindspring.com/~sam.smith/gro/>

Editor's Note: You may need to cut and paste the URL into your web browser. If so, for the long URLs, you should cut and paste the long line first then cut and paste the short line directly on the end of the first, no spaces.

## Fox Hunting in Louisiana...

Fox hunting or "transmitter hunting" is a very popular activity in many areas all over the country, and Shreveport-Bossier has seen many hunts over the years. Many hams will tell you that it's the most fun they've had in amateur radio.

Generally, one individual is designated the "Fox" and is charged with hiding the transmitter. Often, this ham will use his mobile rig as the transmitter and locate his operation in a spot somewhere in the two cities. He might be out in the open, or hidden in clever spots from which he might still view searching fox hunters as they pass by looking for him (lots of fun!). Hunters use HT's or their mobile rig receivers and directional antennas to locate the hidden transmitter. Traditionally, once found, the first to find him hides the transmitter next time.

Following the hunt, war stories are swapped at a local eatery.

Foxes have been known to use their imaginations. One is famous for dressing like a bag lady with the transmitter in a shopping cart....worked for him (yep, in Shreveport, La.).

Most hunts these days utilize two-meter frequencies due to the ubiquity of gear and the nature of two meters. In the fifties, hunts occurred routinely on 80 meters.

Effective gear for transmitter hunting is easy to make and use. Minimal effective gear might consist of a directional antenna and an attenuator, although a variety of gear is used, including Doppler sets, beams, active attenuators, field strength meters, and various other types of active directional circuit/antenna systems.

I've used only a simple cardioid pattern antenna with two elements, and an effective attenuator (very important!) and I've been very competitive with this- total cost about \$15. It's more important to know your gear well than to have extensive gear that you are not familiar with.

It's essential to have equipment that works to have fun, and it's very easy to build-just do it. Make sure it works *before* the hunt. If you have no gear, ride with someone who does...it only takes one set per car-many can ride and share the excitement.

Randy Fulco, K5SL will be giving a presentation on DF'ing and how to build a simple antenna at the next club meeting. He'll do a great job. I do not recommend riding with him, however, due to his tendency to run out of gas and experience other mysterious technical difficulties during hunts.

Direction-finding (or DF'ing) is a handy capability, and we've used our gear locally to find stuck "on" transmitters and mobile rigs on a number of occasions. It's also very useful in locating signals interfering with repeaters, jammers, even activated aircraft rescue beacons (ELT's) at airports.

Come Fox Hunting with us!

Steve W5ZA

## Did You Know?

There's a great article in the new February CQ Magazine. Apparently the first "ham radio" wireless transmission was in 1865 in Virginia. A dentist, Dr. Mahlon Loomis communicated between two mountaintops 20-miles apart. He later communicated between a ship and a shore station. He had plans to communicate between USA and Japan but never got any money for his project. Congress saw no use in wireless communications and would fund no taxpayer money for the idea. . . .

Terry WA5ARJ

## Notes from the Louisiana Section

### POTENTIAL FUNDING FOR ARES GROUPS AND CLUBS

I am still trying to obtain some details concerning the potential Citizen Corps funding for ARES groups and ham clubs. I have learned only within the past few days that the LA Point of

Contact (POC) position is currently vacant. The director of my local Citizen Corps Council (parish level) advises me, however, that ham clubs and ARES groups should first talk with their local Office of Homeland Security and Emergency Preparedness about the possibility of funds. From what I have been told, the details of how this funding program will be administered are still being worked out. However, the good news is that there's still time for interested groups to seek funding for 2004. I will try to contact the new POC as soon as the position is filled.

### **LICENSE RESTRUCTURING PROPOSAL**

As I'm sure most of you have heard by now, the ARRL Board of Directors recently passed a plan on license restructuring. This proposal will be submitted to the FCC for consideration. If the FCC thinks the League's proposal has merit, the FCC will very likely invite comments from all interested parties. Therefore, everyone should review very carefully the Board's proposal and be ready to submit comments, pro or con, if and when the time comes.

### **ARES AWARD PROGRAM**

A new program will recognize the most outstanding ARES group (parish level) in the LA Section starting this year. The criteria that WA5LQZ (SEC), W4DLZ (STM), and I have agreed upon for this year's award is as follows:

1. monthly reports to SEC by EC (1 point each)
2. annual SET participation and report (10 points)
3. annual Field Day participation in F category (10 points)
4. local drills/public service events duly reported to SEC (3 points per event)
5. ARES members holding OES or ORS appointment (1 point per 10 percent)
6. ARES members holding Level I course certification (1 point per 10 percent)
7. ARES members earning PSHR at least 4 times during year (1 point per 10 percent)
8. liaison of local ARES net with LTN or LCW (0.25 points per week)
9. formal messages passed on local net (0.25 points per week)

Items 8 and 9 are specifically included to encourage stronger ties between ARES and NTS. If a local ARES net sends a representative to either LTN or LCW at least one time during a week, then that ARES group receives 0.25 points for that week. In addition, if at least one formal message is handled on the local ARES net during the week, then the ARES group also earns 0.25 points for that week.

The maximum number of points per category per year is as follows:

1.	12	4.	12	7.	10
2.	10	5.	10	8.	13
3.	10	6.	10	9.	13

Here are some examples to show how to determine the scores for items 5, 6, and 7. On December 31, 2004, 33 percent of the members in the Podunk Parish ARES Group hold either an OES or ORS (or both) appointment. Therefore, the group earns 4 points for item 5. On that same day, 57 percent of its members hold at least Level I certification; thus the group earns 6 points for item 6. Finally, because 21 percent of the members have earned PSHR at least 4 times during 2004, the group earns 3 points for item 7.

The total number of points for each ARES group will be determined by simply adding the points for items 1 through 9 at the end of the year. The ARES group with the highest total score will be declared the "Most Outstanding" and will be presented a plaque. Further details (report formats, etc.) will be available soon on the section's website. Each ARES group, whether big or small, should be able to compete for this honor. Good luck to all!

Mickey Cox K5MC  
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# Which LOGO Do You Like Best?

