



## NOTES FROM THE BACKACRE— BUZZ (K3GWK)

Dedicated to serving the communities in and surrounding Butts County, working hand-in-hand with local and state governments, the Red Cross, and other non-profit community-service organizations.

# THE REPEATER

APRIL 2017



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## SAVE THE DATES

### Sundays @ 21:30 Z

Weekly Butts County  
FM Training Net  
147.285- PL 131.8

### March 6

Monthly Training  
Meeting, FS#7  
7:00 PM

### March 18

Hungry Hams  
Lunch Box, 7:30 AM  
VE Session,  
BC Rec Center,  
9:00 AM

## QRP

HAM RADIO CAN BE FUN, AGAIN!



April 3, 2017

72 is the QRP enthusiast's "secret" 73 in the world of low power DX. Steve Hudson, AA4BW, presented a peek into this special area of amateur radio. The presentation highlighted the April 3rd inaugural meeting of our Butts County Amateur Radio Club at the new Exchange Club venue. Steve generously braved the roads all the way from Alpharetta, Georgia to share his experience with our club.

Steve brought several QRP radios for a hands on opportunity to see the components of these interesting transmitters. His collection includes a variety of vintage, contemporary, kit and home built radios.. Many of the radios are no longer produced but continue to work well for use today. Components are frequently found in Altoids tins , popularly employed a case for the QRP radio.

"It is amazing what can be done with 5 watts or less" remarked Steve. CW packs more power into an efficient bandwidth. QRP has opened a new door of amateur radio for him. For many amateurs, this niche of the hobby opens a new world to recapture the fun of this pursuit. He has been able to make the Century Club by confirming

contacts in 100 countries or more.

By virtue of his daughter's profession Steve was able to travel to Micronesia and worked the waves from a hilltop. He first obtained a local license. Upon arrival to the island , his license was personally delivered by the government official. It is worth noting that the delivery required a 50 mile drive by the license official. The island people were universally hospitable and friendly.

QRP radios are generally small. For travel a small case contained his radios, antenna, power supply, log book, a key and accessories. Air travel can be a challenge for transporting equipment. Enter QRP for compact and lightweight portability. For Steve the only bump was in Chicago. The TSA opened his case but soon realized that the license said it all.

We were all encouraged to give it a try. Steve's years of experience was prevalent in his well prepared presentation. Our club was truly fortunate to share an evening with him.

72 to George Hudson

**Georgia QRP link:**  
**NOGAQRP.com**

**WX4BCA REPEATER 147.285- PL 131.8**



## UPCOMING EVENTS CALENDAR

April

**April 3** — April Club Meeting (QRP with Newt White N4EWT), FS #7,

Pre-meeting dinner, Mesquite Grill, 5:30 PM

**April 11** — Newton County Club Meeting.

NC Law Enforcement Center, 7:00 PM

**April 15** — Hungry Hams, Lunchbox Restaurant, 7:30 AM

Tech Saturday – Field Day preparation (Network for logging software)

**April 22** — 1st Quarter ARES exercise, Bluebird & Bluegrass Festival

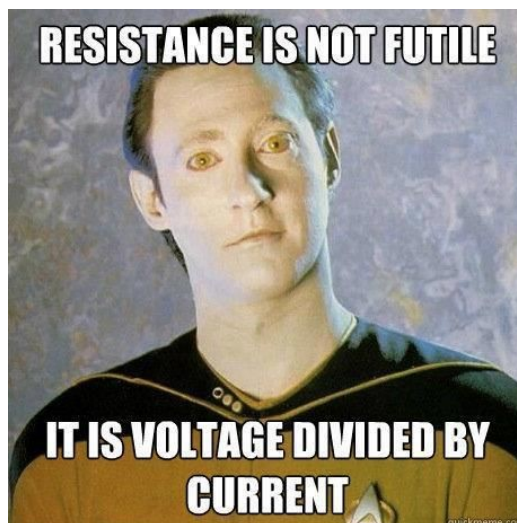
MAY

**May 3** — April Club Meeting, Exchange Club,  
Pre-meeting dinner, Mesquite Grill, 5:30 PM

**May 13** — Hungry Hams, Amateur Radio Testing (VE), Rec Center

**May 19 - 21** — Dayton Hamvention

**May 29** — Memorial Day



## Editor's Not

Well here I find myself as the new editor for The Repeater. How can I even start to fill Ed Hoard's shoes? Frankly our club has been spoiled for some time. It is tough to follow Ed's high quality work. Fortunately Ed has shared with me the excellent format he developed for our newsletter as well as many copies of our past newsletters. Even with all of the ground-work done, it is a new challenge for me. Just to use the software is a significant learning curve, but I am committed to it. I will give it my best shot. Remember, please, this is our newsletter. Please let me know if there are errors, recommendations or any articles that you wish to contribute. 73, Mark Clark at NI2Y@arrl.net

\* Disclaimer: No trees were ravaged to make this newsletter, however billions of electrons have been majorly inconvenienced \*



## PRESIDENT'S PONDERINGS — ED (WX4ED)



### President's Ponderings

A Pennsylvania man had survived the famous Johnstown flood. It was the defining event of his life. He would bore his family and friends to tears with the story over and over again. Every time he met a new person, he would introduce himself, "Hi, I'm John. I survived the Johnstown flood." John died and went to heaven. St. Peter asked him if there was anything special they could do for him to make heaven more enjoyable. John said, "St. Peter, I'd like for you get a large group of people together so I can tell them about surviving the Johnstown flood." Every day for the next 100 years, John asked Peter to assemble a crowd so he could tell them about surviving the Johnstown flood. Finally St. Peter relented and filled an auditorium with people. John was ecstatic! He could barely contain his excitement. Just before going out to address the large crowd, St. Peter pulled him aside and said, "Just wanted you know; Noah is in the audience."

I know how John felt! You have graciously elected me to be the new president of the Butts County Amateur Radio Club, but Buzz Kutcher is in the audience!

I have never felt so incompetent. Buzz's leadership in the club's founding and its incredible growth are the stuff legends are made of. In a way I feel like John; yet in another I'm mighty glad Buzz is there. He has promised to keep me on the straight and narrow.

Thought you'd like to know more about me and my decades-long interest in radio. This is the first and last time this article will be about me.

My first transceiver was a Dick Tracy wrist radio. My dad gave it to me for Christmas when I was around 10 years old. Basically, it was a Citizens Band transceiver with the speaker/mic on a wrist band connected by a wire to the rest of the radio that was worn on your belt. It wasn't long before I was on the roof of the house with an old auto antenna and some scrounged wire trying to make my radio more talk farther.

My childhood dabbling with transceivers, radio receivers, amplifiers, microphones, etc. led me to accept a job at local radio station WJGA in Jackson when I was 15 years

old. The owner of the station was its chief engineer who took me under his tutelage and was determined to make an engineer out of me. When it was time to go to college I decided to get a degree in electrical engineering.

Along the way I was called to the ministry. I have continued to dabble in commercial radio, even went so far as to buy a radio station. Would you like to know how to make a small fortune? Start with a large fortune and buy a radio station.

My interest in Amateur Radio goes way back to my Dick Tracy days. I always wanted to be a ham, but had

absolutely no—zero—nada interest in learning code. When I read about the Ham Cram this club was hosting five years ago, I did some research and discovered code was no longer a requirement for a license. I registered for the Ham Cram, passed the test and fulfilled a life-long goal.

What a blessing (you will have to overlook my frequent "religious" overtones—I have been a minister now for 43 years!) it was to become a member of a club as active and as mentoring as ours. When I talk to ham friends from around the state, they all marvel at the way our club teaches and mentors.

I will never fill the shoes of my predecessor—but I will work hard to see that the growth and quality our club has become known for will continue. My ear is always attuned to your suggestions, critiques, and encouragement. I will need your help. There is a boatload of talent and expertise in our club. Working together, we will continue to make waves in the ham community.

When all else fails....

73,

Ed WX4ED





## NOTES FROM THE BACKACRE— BUZZ (K3GWK)

### Butts County Emergency Coordinator

First, I would like to thank Ed (WX4ED) and Elaine (KW4AQ) for stepping up as candidates and now as the newly elected president and vice president of our club. I'd also like to thank Darlene (KK4BKF) and John (KA3SME) for continuing to serve as secretary and treasurer. Our radio club is in good hands. Also, let me say thanks to the Butts County Emergency Communication Auxiliary for the very thoughtful (and unexpected) gavel plaque that I received from Ed at the March meeting. I enjoyed serving as club president and I hope to continue to be involved. David Benoist (AG4ZR), our ARRL Section Manager told me he enjoyed his visit. He was very impressed with our group. April will see us in our new meeting venue; let's try to outgrow that place also. One of our newest members, Nancy Phillips (K4NEP) was the person who was able to arrange for us to meet in the Exchange Club building.



In March we put in a total of 300 Ham Hours, value \$7,068.00. There were four FM voice nets and four WL2K tests (47 Ham Hours). Neil (KK3SKY) did a great job as NCS. Ken (KM4HOS) continues to provide excellent opportunities to practice receiving messages with NBEMS and Winlink2000. All of you are encouraged to participate in these weekly messaging exercises, either by Telnet or RF and please be sure to send in your WL2K test message using the ISC-213 format. There were eleven training opportunities (176 Ham Hours), two Public Service events (69 Ham Hours); Publix Marathon support (KK4QJR, KW4AQ and W4DED) and the VE session. There was one miscellaneous "Round Table" session.

A basic CERT class is underway at Station #7 and several of our members are attending: AK4EM (David), K4NEP (Nancy), KM4NRP (Mark), KM4PKD (Michelle) and NI2Y (Mark and his YL Patti). This week's session was a Basic Storm Spotter class presented by David Nadler from the NWS, Peachtree City office.

Ken (KM4HOS) and Dan (W4DED) operated the Sylvan Grove station for the March Hospital Net. The equipment for the VHF/UHF station at the Butts County Public Health office was ordered and there was an email today from Krystle Whitten, Butts County's Nurse Manager, saying that two boxes had arrived from HRO. Krystle attended a recent Butts County BOC meeting and received unanimous approval for BCECA to install the radio station at the facility. Several ARES members did a site check

and Mike (AJ4GU) was able to use the D-STAR repeater in Atlanta using his mobile rig from the office parking lot.

Our ARES roster now stands at thirty-two (+4). There are eighteen ACTIVE members and four PENDING. There are five additional PENDING members who have not completed an ARES registration form. The PENDING

members must complete a Basic ARES course, IS-100, IS-700 and IS-802 to achieve ACTIVE status. Fifteen of our current ACTIVE members have not completed all of the required courses. Come on folks, let's get these courses completed. It's Easy Pezy! Remember to include Butts County (EC Buzz Kutcher K3GWK) when you register for the Gwinnett Basic ARES course. If you want to know what courses you have completed and what courses you need, you can either check your GA ARES Database page or send me an email. I will reply with your current training status.

That's about it from Jenkinsburg Station. (Weather Underground ID: KGAJENKI2)

Thanks again for all you do for ARES and for Amateur Radio.

73... Buzz, K3GWK





## TECH NOTES FROM WHIT SMITH— WA4VBX

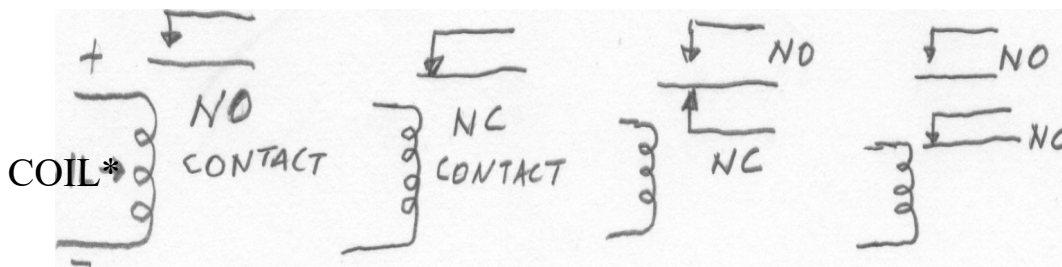
# Tech Notes

Whit  
WA4VBX

## Can a 6 volt relay be used on a 12 volt system?

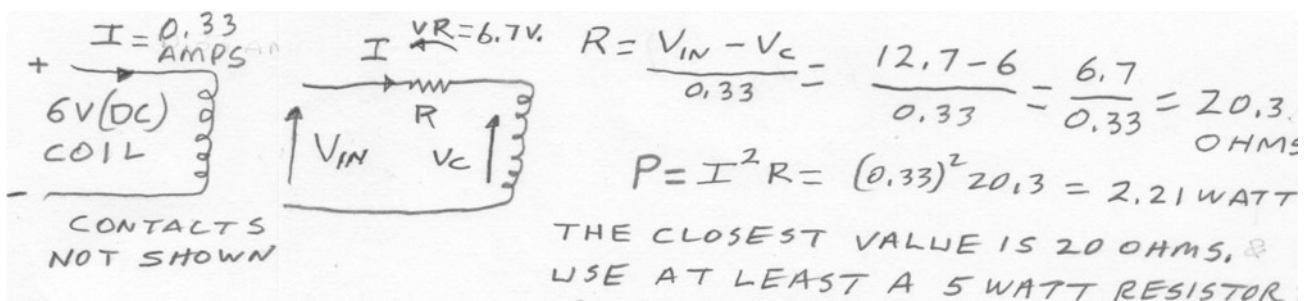
The answer is yes, if certain provisions are made. A relay is a device used to control power from a remote location and/or to control a large amount of power with a small amount of power. A relay consist of one or more sets of contacts, which may be normally open (NO) , normally closed (NC), or a combination of (NO) and (NC) contacts as well as a control coil for activating the relay. This discussion concerns direct current relays (DC) only. Below are some examples of relays with various contact arrangements. Each relay coil has a operating voltage as well as its amperere requirement. If you know the voltage and current requirements, then several calculations are all that is required. If you don't know the characteristics, then you must measure them. When you apply a voltage to the relay coil starting at zero, at some point, about 4 to 5 volts, the relay will pull in. Increase the voltage to 6 volts and read the current. From these readings , you can determine what else is required. The nominal full voltage of a 12 volt car battery is about 12.7 volts.

Below is an example of the calculations needed. Each relay is different and the requirements will need to be individually measured. This relay has a 6 volt coil which draws 0.33 amperes. This relay will control about 15 amperes.



There are many arrangements of contacts

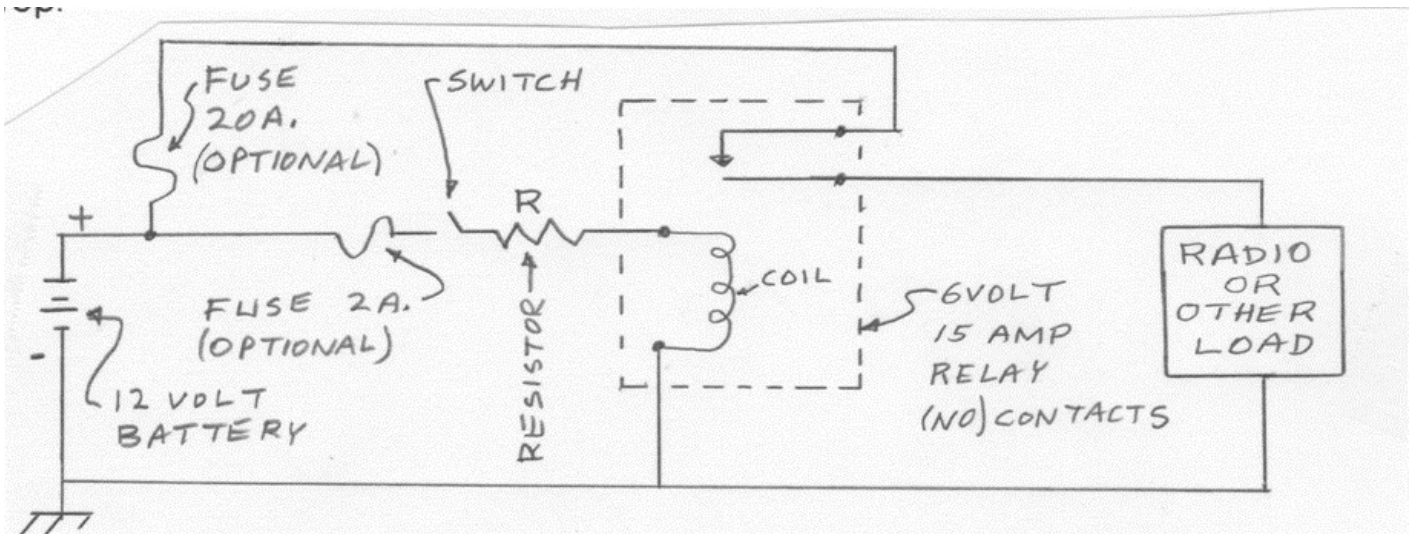
Below is a typical arrangement using a relay to control power at a remote location. There is no set distance between the battery, relay, switch and load other than voltage drop.





## TECH NOTES FROM WHIT SMITH— WA4VBX

Below is a typical arrangement using a relay to control power at a remote location. There is no set distance between the battery, relay, switch and load other than voltage drop.



Fixed resistors don't come in all values. It may be necessary to get an adjustable resistor to get the desired value. Power rating should be at least twice the calculated value. They will be fairly warm to the touch. It would be more conservative to use at least 4 times the calculated value.

It may be difficult to find the desired resistor. As an alternate to using a resistor, use two identical relays with their control coils wired in series, thereby making an equivalent "12" relay.

wd  
3/28/17

Editor's note:

Thank you Whit (WX4VBX) and Jeff (KN4FRG) for these great tech notes.

# Tech Notes

Jeff  
KN4FRG



## QYT KT-8900 REVIEW

As a new Ham Radio Operator there is a quest to get on the air and have the capability to at least talk to the local FM repeaters. As with most new operators armed with a Technician's license, this operator purchased a portable handheld radio with a dual-band capability and a better antenna. The radio, even though adequate, could not connect to the majority of my local repeaters here in the Ozarks. With a limited budget, and with my newly established Ham friends, I found a Chinese dual band radio, the QYT KT-8900 for a very reasonable price. The cost of the radio new via Amazon is around \$85 with the programming cable (at the time of this written article). The transceiver, with hopes from its new owner, would fulfill its task of allowing an on-air capability to the majority of the local repeaters with as little fuss as possible.

The general description of the QYT KT-8900 is boasted as a 25W/20W (VHF/UHF) Mini Transceiver transmitting. The transceiver itself is similar to Baofeng UV-2501 and/or WACCOM housed in a rugged enclosure, out-in the VHF/UHF bands, includes a display, the familiar V/M (VFO/MONI) button that opens the squelch in the absence of an incoming compatible with a Kenwood DTMF type and includes the ability to start and stop scanning, move channels up or down, lock key operation and access to the KT-8900 menu. Now, on to the personal review based upon this operator's experiences.



136-174MHz & 400-480MHz. other like radios such as the Mini 8900. The KT-8900 is puts between 20 and 25 watts scanning feature, a dual level Memory) feature as well as a to enable setting the audio level-signal. The microphone is

After reviewing the operator's manual, yeah right, I connected the KT-8900 through LMR-400 coax to a Jetstream JTB3 vertical dual-band antenna sitting on a 28' mast through a Jetstream JTPS45 switching power supply that has an outlet for a cigarette lighter power cable. At this point, I did review the manual to manually program the radio to see if the KT-8900 actually produced 25W/20Ws respectively of power and provide me the capability to talk to the local repeaters. The programming steps for the radio are much like my handheld (Baofeng BF-F8HP), but requires additional steps (4 steps) to program a repeater for VFO use. After programming a 2m and 70cm repeater into the dual VFO, I was successful in acquiring each repeater, but no one was monitoring. After monitoring for a good period, I successfully had responses from four repeaters with good reports. The transceiver did provide me the capability to get on the air and talk to majority of the local repeaters ranging 30 – 80 miles away from my location and specifically to my away from home Ham Club monitoring repeater. So, the KT-8900 did



## **QKT-8900 REVIEW cont.**

Upfront, the transceiver is a good radio for general use as a mobile configuration especially for smaller vehicles with limited room and convenient for quick emplacement due to its cigarette lighter plug-in capability and of course with a simple magmount mobile antenna. It will provide a capability for someone to get on the air, but not much else - there was no expectation from this operator other than getting voice over the air. There is no capability for digital communications and programming via a PC was a nightmare. Neither the free software nor CHIRP was successful with programming the radio. After reading several reviews and repeated tries, I was still unable to connect and program the radio via a PC, by the way I am by no means a slouch regarding PCs. So, therefore, I used the manual to program memory channels into the radio, but I did find that sometimes the radio accepted the channel and sometimes it did not and for some reason, memory channel #1 would never accept an entry. Based upon the majority of reviews throughout the web, the PC-based or manual method is hit or miss, your results can vary. Now to mobile use of the radio.

I connected the KT-8900 to the lighter socket and to a Nagoya UT-72 dual-band mobile antenna and set out for work. I did talk to a few folks during the 45-minute drive and noticed a lot of noise and scratchiness during transmit, filtering by the radio seems non-existent. As in comparison, the Baofeng handheld does not portray the same issues within a mobile configuration as did the KT-8900. During base station operations, I do not experience any of these issues and for the most part my transmissions (based on reports) and receipt are very clear. During either operational modes, the transceiver stays relatively cool and the speaker is loud and clear, my opinion, it would not require an external speaker unless for convenience. The system unit draws 4 amps and after power testing outputs 24W VHF and 22W UHF and it does meet my intent of connecting to the local repeaters and getting on the air. The display is easy to read, but a little small. The S-meter function portrays full scale for all signals along with multiple other than normal quarks during use.

All in all, the KT-8900 met my intent, but could never serve as a primary system for FM use, voice and data. For the beginning Technician, the radio is reasonably priced and lets the operator extend their range beyond a handheld. The system is well-built and cool to the touch and could provide some flexibility for use in a small vehicle (mobile) and/or for use during emergencies through battery power due to its size, portability, and small power draw during transmit. The KT-8900 programs very well manually through the mike, but good luck programming through the PC. As a back-up dual-band radio, it could serve OK, but it might be better to save a little longer and purchase a more suitable system for everyday use.

Jeff KN4FRG



Visit our website: [www.bcgaares.org](http://www.bcgaares.org)

**BUTTS COUNTY EMERGENCY  
COMMUNICATIONS AUXILIARY**

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770-957-0779  
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**Net Control Station Roster**

**April**

Melvin KK4QJR

**May**

Darlene KK4BKF

**June**

Darlene KK4BKF

If you'd like to serve as NCS, please  
email Ken (KM4HOS), Net Manager:  
[kawallis@charter.net](mailto:kawallis@charter.net)

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**Weekly Training Net:**

**Sunday 21:30 GMT  
4:30 EST 5:30 EDT  
WX4BCA Repeater  
147.285- PL131.8  
Jackson, Georgia**

**BUTTS COUNTY / SOUTHERN CRESCENT AREA NETS — HF, VHF & UHF**

**Sunday (4:30 pm) GA ARES Digital Net — 3583 KHz (USB) or 7042 (PSK-31) Center 1000 Hz**

**Sunday (5:30 pm) GA ARES D-Rats Net on the GA ARES Port**

**Sunday (utts CO FM Training Net — 147.285 MHz (131.8 PL) Winlink: WX4BCA**

**Sunday (22:00Z) GA ARES SSB Net — 3975 KHz (LSB) Winlink: WX4GMA**

**Sunday (9:00 PM) SE Weather Net on D-Rats**

**Monday (9:00 pm) Southern Crescent FM Net — 145.170 MHz (146.2 PL) & 444.875 MHz (123.0 PL)**

**Monday (8:30 pm) Central GA District Digital Net — 3583 KHz (PSK-63/125) Center 1000 Hz**

**Tuesday (7:30 pm) NW GA Digital Net — 3853 KHz (USB) or 7042 (PSK-125) Center 1000 Hz**

**Tuesday (8:00 pm) GA CERT FM Net — 146.805 MHz (100.0 PL)**

**Wednesday (9:00 pm) SE Metro Digital Net — 146.925 MHz (88.5 PL) (MT63-2KL) Center 1500 Hz**

**Thursday (8:00 pm) NCRC/ARES/RACES FM Net — 146.925 & 444.800 MHz (88.5 PL) Winlink: K4NCR**

**Thursday (9:00 PM) Barnesville/Lamar County W8JI Repeater Net — 147.225 (no tone)**

**Saturday (11:00 am) \*SATERN Net (Southern Section) — 7262 KHz**

**METRO ARES FM NET**

**1st Sunday (4:00 pm) Metro ARES FM Net — 145.430 MHz (107.2 PL)**

Also on EchoLink at WB4NWS-R (Node: 593209)

**Newsletter Submissions**

Please submit all articles and /or suggestions to **Mark Clark** (NI2Y)  
[NI2Y@arrl.net](mailto:NI2Y@arrl.net)