

# THE REPEATER

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## AUGUST 2017

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.

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## WHERE WILL YOU BE ON August 21, 2017 ?



## 2017 Solar Eclipse Path

Butts CountyEmergency

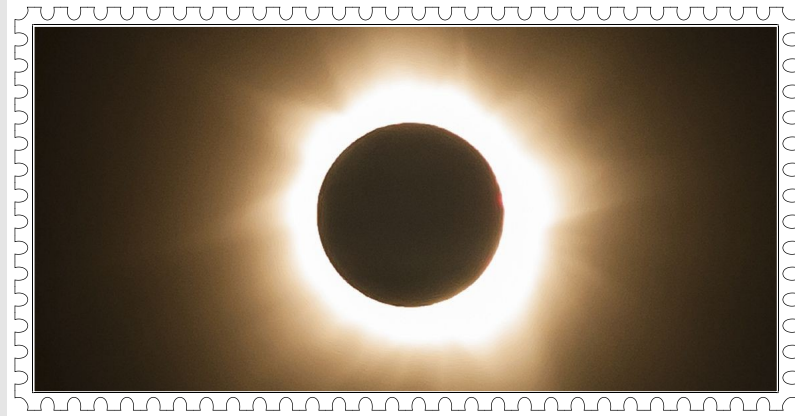
348 Patrick Circle  
Jenkinsburg, Georgia  
30234

770-957-0779  
wx4bca@arrl.net





# 2017 - SOLAR ECLIPSE



A rare total solar eclipse will occur on August 21. We are very fortunate to be in the path of near totality. It is A short drive to position oneself in the optimum path of the eclipse.

Nearly the entire continental US will experience some or all of the eclipse.

Some worry about potential eye damage or the early forecasts that foresee some cloud cover on that important day. Turn these worries into a HAM opportunity. Just turn on your radios instead.

Contests and radio science will be in progress during most of the event. While much is known there are remaining questions about how those finicky electromagnetic waves will behave when the layers of atmosphere above deal with the interposition of the moon with the sun's radiation. (or as noted by the ARRL) "We want to understand how the ionosphere is affected by blockage of sunlight over a relatively short interval (~2 hours), understand how man-made systems are affected by the changes in the ionosphere, and use the data to improve our numerical models."

Search the ARRL Special Events Calendar for total eclipse special event operations.

For more information go to: <http://arrrl.org> and <http://hamsci.org/solar-eclipse-qso-party>



### August

**August 7**— Monthly Club Meeting, Exchange Club, Topic NWS— Laura Belanger

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

**August 19** — Hungry Hams , 7:30 AM at the Lunchbox

Tech Saturday—FS #7

Huntsville Ham Fest



### SEPTEMBER

**September 11**— Monthly Club Meeting, Exchange Club, Topic : NPOTA Activities, Speaker: Chuck McCord, KK4TKU

**September 16**— VE Session

**September 23**—Hungry Hams, 7:30 AM at the Lunchbox

# MEMBER BEACON



The Repeater welcomes David Burnham, AK4EM, to our monthly member spotlight feature. Let's get to know him better through his individual perspective of the diverse hobby of HAM radio.

## David Burnham - AK4EM

**In which year were you first licensed?** June 2010

**What aspect of HAM radio first interested you in the hobby?** Started with a local K-9 Search and Rescue Team. Stayed with the team for a couple of years. They required tech license to operate the HT radios. Started attending some meetings and since I work on radios at work, became interested in the hobby and how radios work. I had some good Elmers that worked with me and gave some good advice. Most are still in the club to this day.

**What type of radio was your first radio?** First radio was a Kenwood TS450 that Jessie Porter allowed me to "air out". This was one main thing that got me hooked on the hobby. I did not know you could talk and hear from around the world.

**What is your favorite radio?** The Yaesu 450 is my first new radio. I also like the Boefeng radio because they work, and are very cheap to start out with.

**Which aspect of HAM radio interests you most now?** I like to contest when possible and play around with digital modes. I am starting to play with low power operation, and still trying to learn Morse code.

**What future area of HAM radio would you consider learning more about?** There is so much available that I just pick a new feature every once in a while and try learning it. I have been playing on little on 6 meter but nothing to brag about yet. I picked up on JT65 a few months ago and was able to make several contacts.

**Are any of your relatives licensed HAMS?** No one in my family has ever been a HAM. Until 2010 I never heard of a HAM operator.

**What is your most interesting contact?** A lot of my contacts are interesting. I recorded my first RTTY contact, printed it out, and have it in my bragging book. I also keep up with special events stations and QSO cards.

**Are there any licensing and/or operating regulations that you would like to be changed?** Not at this time

**Where is your station located?** My station is located in my house where there is air condition and heat. I have tried several locations throughout the house but this one is working out so far.

**What kind of antennas do you use?** My main antenna is one that I built myself. It is a multiband inverted V. It is located about 35 feet in the air on a tower. The ends of the V are located about 6 feet off the ground. I can operate from 6, 10, 15, 20, 40, and 80 meters. I have a 2meter/70cm antenna at the top of my tower and another antenna in my attic that I can use during storms. I am fortunate enough to have some instruments that I can borrow from work such as a Vector Network Analyzer and Spectrum Analyzer. I was able to build an antenna and fine tune it with no problems.

**How could amateur radio attract more young members?** Somehow amateur radio has to compete with the digital world. I think that more young members would get involved if they knew about all the modes we have and also that they would not have to pay a monthly fee like cell phones charge.

**Which club activity do you enjoy most?** I enjoy participating in most all club activities. The only problem is finding time to participate in them all. I do not think I have been to a single meeting where I did not learn at least one thing. I enjoy working field day and events. I think that the more we are in the public view, the more people would realize that there are such things as HAM radios.

**What advice would you give to new HAMS?** Attend some meetings, meet some of the people, start small with an HT and keep learning new things.

**Is there any information about you or comments that you would like to add?** I work for Henry County Water. I have been there about 25 years. I am in charge of our SCADA system. We currently have about 50 radio sites. These are located at different Water Plants, Wastewater Plants, Sewage Stations, Reservoirs, and Water Tanks throughout the county. Our system operates mainly around 450Mhz with some around 930Mhz. The radios we use, operate around 5-10 watts and most antennas are about 20-40ft high. I do have some of the 900Mhz antennas on 140' towers. The radios are digital and send data back to multiple computers that are monitored 24/7. I did learn that a pine tree branch has needles that are spaced perfectly for frequencies around 400Mhz. If you have too many trees in the way, they will kind of absorb the signal. Go out in your back yard and look at a pine tree to see how it looks just like a Yagi antenna.





# PRESIDENT'S PONDERINGS— DR. ED HOARD /

## WX4ED

Amateur Radio clubs are as different as the thing(s) they choose to major on. Some clubs major on fellowship, others major on acquiring real estate for buildings and antennas and others, like ours, major on service.

This past month my XYL and I got away for a few days at the beach. Our favorite destination is the Florida Gulf Coast—usually Mexico Beach or Panama City. This time we chose Panama City. I took along my HT and made a few QSOs with the locals (many of whom I've gotten to know quite well over the years). On Monday night I checked in to the Panama City Amateur Radio Club's weekly net. On Wednesday I QSO'ed with Don KK4DWC. Don and I have talked numerous times over the years and this time he invited me to attend the club's meeting that evening.

Don is a retired Yankee who wisely moved South (by the way have you ever heard of anyone retiring and moving North?) He now owns and manages a small ranch just north of Panama City. His nickname is "Mr. Grumpy." His ranch has been dubbed "Mr. Grumpy's Crooked Fence Ranch." Don is anything *but* grumpy!

When I arrived at the clubhouse, Don was waiting to greet me and to introduce me

to his ham friends. Yes, they have their own clubhouse. It's located in a city park just across from a boat ramp that provides access to the beautiful St. Joseph Bay. Towering over the clubhouse are two antennas—a hex beam and a multi-band vertical.

Inside the small building were two rows of folding tables and chairs. Along the North wall was their club radio station consisting of two HF rigs and a dual band VHF/UHF digital station. The walls were littered with newspaper clippings and articles touting the club's service to its community. When Hurricane Opal struck the Gulf Coast in 1995, the PCARC went into action and stayed on the air relaying emergency information, lending a hand to the many shelters in the area and even pitching in after the hurricane during the clean-up process.

The one thing that caught my eye was a letter addressed to the club from a relative of one of the radiomen who had served aboard the USS Indianapolis. The Indianapolis was famous for two reasons: it carried the very first atomic bomb ever used in war ("Little Boy") and it was subsequently sunk by a Japanese submarine. One of the radiomen was from Panama City, Florida and he was a ham. When the Panama City Amateur Radio Club looked for a club

call-sign, they adopted the former radioman's sign—W4RYZ—in his honor.

The Panama City club meets every Wednesday. They have a program once a month—the other Wednesdays are just "rag chew sessions." I happened to catch them on a "rag chew" night. They were interested in our club and what kinds of things we are doing. It was obvious they were proud of their club, its history and its record of service.

I came away from the experience thinking how proud I am of *our* club. Although we haven't been in existence nearly as long as the Panama City club and we aren't named for a naval hero, we *are* doing some of the same things—mentoring, advancing the hobby and providing a needed service to our community.

I had the privilege of being one of our club members who worked the Covington Century Bike Ride this past month. Several of our members helped out the Newton County Club with this annual event. Listening to the various stations report, I heard the voices of Ken KM4HOS, Elaine KW4AQ, Melvin KK4QJR, Dan W4DED, and Mike AJ4GU. The majority of voices on the radio that day were from *our* club. It made me proud that our commitment to service extends beyond our own community to the surrounding communities as well.

I was teamed with Del W4DEL and Dana WJ4Z from the Newton County club. During the 5 hours we were activated, the three of us truly enjoyed talking "radio" and enjoying one another's company. What wonderful hobby!

When all else fails,

Ed WX4ED

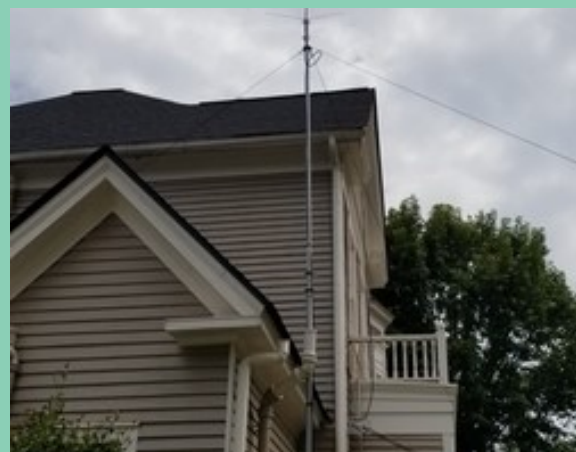
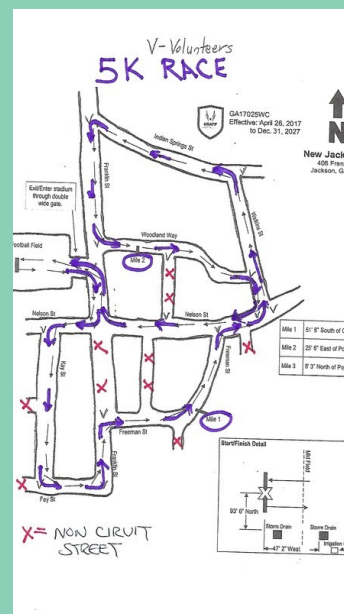


130 Church Avenue  
Panama City, FL 32401

**W4RYZ**



# RECENT EVENTS IN PHOTOS





# PROPAGATION



**WE ARE GROWING**

**Please welcome and congratulate our new radio amateurs  
who passed the two day Technician Class training**

**Dick Spangler KN4ETD**

**Albin Spangler KN4ETE**

**Shelby Foles KN4ETF**

**Caleb Thompson KN4ETG**

**Charlie Brown KN4ETH**

**Steve Dillon KN4ETI**

**Randy Parker KN4ETJ**



# COMMUNITY SERVICE

Our local and state level agencies recognize the importance of amateur radio operators. Despite relatively few natural disasters (fortunately) our volunteers remain ready for work. We are there in times of calm as well as the natural and man made disasters. HAMs enable many events that enhance the quality of life in our community and provide for an added layer of safety during these events.

Within our club there is a vast patchwork of skills, experience, abilities and knowledge,

Please take a look at just some of the events we support. And keep in mind many have full time and part-time jobs, families, hobbies, health problems, other volunteer work. Yet they volunteer selflessly for the community and our HAM family. This includes all of the equipment donation, sharing and "Elmering" within our own HAM community.

Imagine the number of post-it notes if we tacked all activity on this !





## NOTES FROM THE BACKACRE – K3GWK



**W**e had a very busy month. The big event for July was our first ever Technician Class. Taught by an excellent group of instructors, some new and some seasoned Elmers, the class started with eight students on July 8<sup>th</sup>. One student missed the July 15<sup>th</sup> session so the final tally was seven. The best part, all seven passed the Technician test that followed the final class room session. The highlight for many of us was a SKYPE visit from Gordon West. Gordo spent about ten minutes talking to the group about the importance of getting involved in an organization, one that would help the new hams grow in the hobby. He singled out our club as a group worthy of consideration. He also recommended not rushing into moving up the ladder to soon, get some experience first.

Our ARES team provided course communications support for the first running of the Leadership Butts 5K "Glow Run". Fortunately, the rain stopped before the race started. We set up a portable Net Control station near the start/finish line, provided shadows and had ten hams positioned at key intersections around the course. The Co-Director, Josh Thomas (KJ4IKX) was provided with a hand-held radio, no shadow needed. Our assistance was appreciated; we received a "thank-you" note from Sonia Sands, a Leadership Butts class member and the Director of Butts County's 911 Center. We had our banner displayed and received many "thank-yous" from the runners as they passed our positions. Another good exercise and way to get ham radio out in front of the public.

Five of our members worked the Peachtree Road Race again this year. The Peachtree is the largest 10K road race in the world with over 60,000 participants and 3,500 volunteers. Dan (W4DED) and I are stationed at Water Stop 3 (Left and Right). Close to the 3 mile point and half way up Cardiac Hill. Mike (AJ4GU) was with the wheelchair participants and then re-assigned to the Medical Area with Elaine (KW4AQ) and Melvin

(KK4QJR). Karla Redman (KJ4TVP) was a participant and said hello.

Our ARES activity for July totaled 409 Ham Hours, quite a dip from June. **The community impact value of that time was \$9,800.00.** There were five training opportunities (195 Ham Hours) and four Public Service events (152 Ham Hours). We had two Miscellaneous Activities (18 Ham Hours), both related to radio maintenance at the Health Department and Sylvan Grove Hospital. There were ten nets in July, five FM voice and five WL2K (73 Ham Hour). ICS-213 use for the WL2K has been 100%. The GA ARES Digital Net for August will be using WL2K so remember to add WX4GMA to your weekly digital test message/Digital Activity Report.

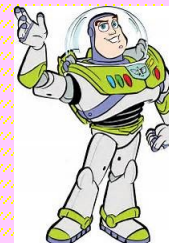
Our ARES roster remains at thirty-four. There are ten GA ARES DEPLOYABLE members, eighteen "ACTIVE" members and six PENDING members. The PENDING members must complete a Basic ARES course, IS-100, IS-700 and IS-802 to achieve full ACTIVE status.

ARES is all about RESILIENCE - being prepared. Preparedness is the foundation of a successful National Incident Management System (NIMS). You can replace the word national with city, county, state, etc. Resilience Planning can be represented by a circle called the "Preparedness Cycle" - five steps that continuously repeat: *Plan, Organize/Equip, Train, Exercise, Evaluate, Improve*. One step follows the previous step, providing continuous improvement of our emergency communications skills. Completing those Basic ARES and NIMS courses are as much a part of our resilience preparation as license upgrades, knowing how to set up a field station or run a net.

That's about it from Jenkinsburg Station. (Weather Underground ID: KGAJENK12)

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

73, Buzz (K3GWK)



## WHIT'S WISDOM



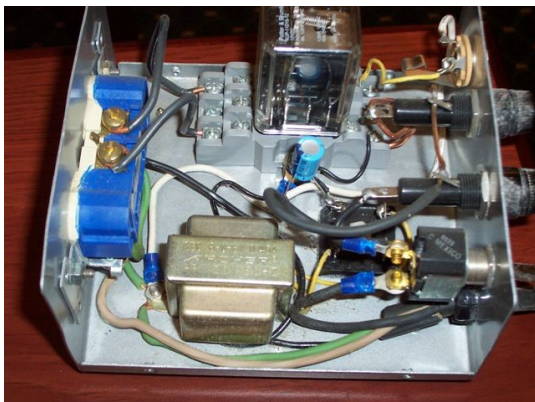
### Central Vacuum System

Do you have or want a central vacuum system in your house?

During the building of my house, I decided to rough-in the pipes and outlets for a central vacuum system. There is a lot of planning required to have a system that is functional. If you want to add a central vacuum system to an existing house, check to be sure you can physically install the outlets and piping before you purchase the material. In a finished house, it is much

more difficult to install the required material. The outlets will probably be installed surface mounted on a wall inside a closet. The piping will need to either extended overhead to the attic or down to the crawl space or basement, and then to the power unit. All of the materials used were NU-tone brand except for the power unit, and a home-brew controller. The power unit is a 6 HP shop-vac from HD or Lowes. This unit has enough suction power to do an adequate job. Use some duct tape to connect the shop-vac hose to the piping system. The shop-vac is operated by a home-brew controller via 2 conductor (#16) wire routed from the controller along the piping to each outlet. These wires are connected in parallel. When you insert the metal end of the hose into the outlet, it shorts the 2 conductor wires at the outlet and operates the controller.

The controller plugs into a regular 120 volt receptacle. The shop-vac is plugged into the controller and is operated by a relay inside the controller.

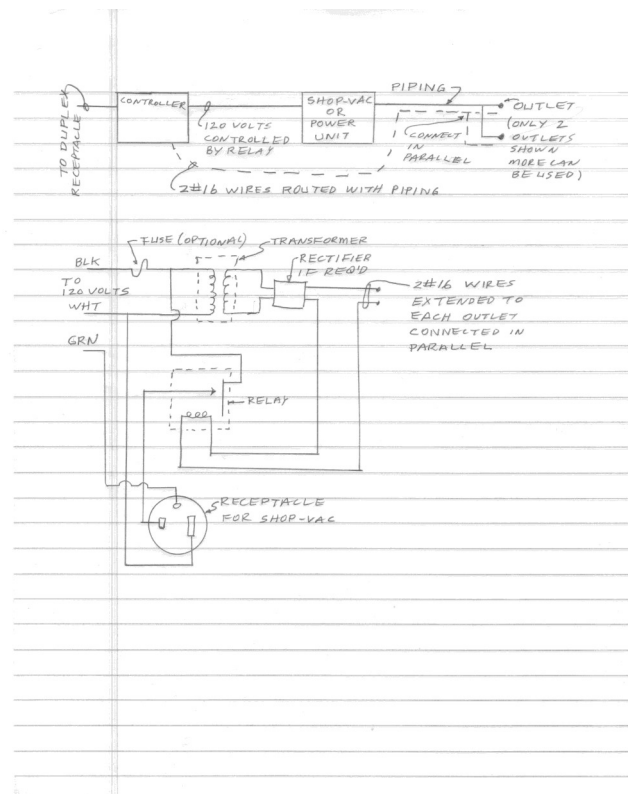


The relay should have normally (NO) contacts rated at least 1.5 times the full load current to the shop-vac, @ 120 volts. Depending on the relay selected, you may have to wire two sets of contacts in parallel to meet the load current requirements. The control coil is rated from about 12 to 16 volts either dc or ac depending of the relay selected. Also inside the controller is a transformer to change the ac voltage from 120 volts to 12 - 16 volts. The transformer secondary winding needs to have about 1.5 times the ampere rating of the control coil. If the relay selected is a dc operated type, a rectifier system will be needed.

I have installed a home-made system in two different houses. The systems work very well but they did require a lot of work to set the system into operation. When you look at all the work required to make this home-vac system a reality, you need to be sure that you really want to go to that much trouble.

Below is a picture and a diagram of the units that was built.

Whit  
WA4VBX



## TAPE MEASURE VHF ANTENNA – BUZZ KUTCHER



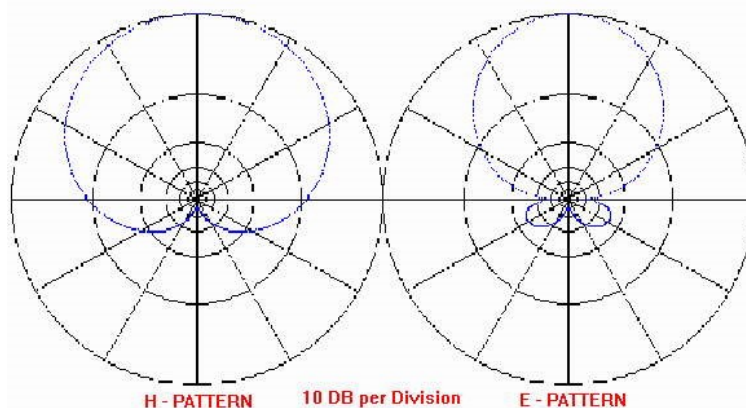
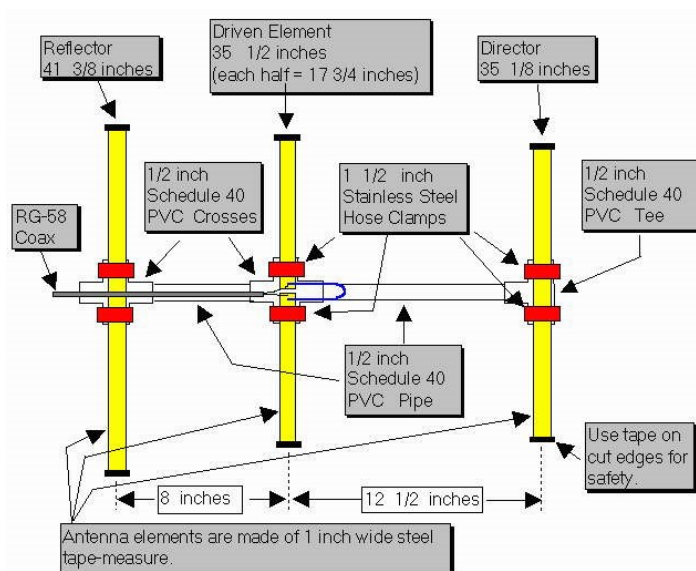
It must be time for a foxhunt.

Buzzo, a.k.a. the Other Buzz, K3GWK heard about this project from his club from the past in York, PA. It is a well designed VHF antenna with directional properties and ease of matching to an HT.

Here is an interesting project. I built one this weekend, it took about two hours total over a two day period. As you will read in the article, it uses  $\frac{1}{2}$ " PVC pipe and fittings and a 1" wide tape measure tape for the elements. Mine took about 30" of pipe, two antennas can be made from a 5' stick of pipe, there is 15' of tape left on the ruler I used so two antennas can be made from one twenty-five foot (1" wide) tape measure. We are looking into what will be needed for the coax whip that connects the antenna to the radio. I had an old test jumper that I used but there are other possibilities available.

Nothing special in the way of tools. I used aviation snips to cut the tape but old scissors might work. A Dremel tool and soldering gun are helpful when you get to the making the feed point on the driven element.

[theleggios.net/wb2hol/projects/rdf/tape\\_bm.htm](http://theleggios.net/wb2hol/projects/rdf/tape_bm.htm)







# REMINDERS



**Huntsville Hamfest**  
**Aug19 & 20, 2017**



**STONE MOUNTAIN HAMFEST**  
**and ARRL Georgia State Convention / Nov. 4-5, 2017**  
**Gwinnett County Fairgrounds / Lawrenceville, Ga.**



**JANUARY 2018**

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

Butts County Emergency  
Communications Auxiliary

348 Patrick Circle  
Jenkinsburg, Georgia  
30234

770-957-0779  
[wx4bca@arrl.net](mailto:wx4bca@arrl.net)

### Net Control Station Roster

#### August

Melvin KK4QJR

#### September

Darlene KK4RBKF

#### October

Elaine KW4AQ

### BUTTS COUNTY AMATEUR COMMUNICATIONS AUXILIARY

#### President

Ed Hoard WX4ED  
[edhoard@yahoo.com](mailto:edhoard@yahoo.com)

#### Vice-president

Elaine Stachowiak  
KW4AQ  
[ubudogems@hotmail.com](mailto:ubudogems@hotmail.com)

#### Secretary

Darlene Ragon  
KK4BKF  
[lragon@aol.com](mailto:lragon@aol.com)

#### Treasurer

John Lipscomb IV  
KA3SME

#### Emergency Coordinator

Buzz Kutcher  
K3GWK  
[k3gwk@arrl.net](mailto:k3gwk@arrl.net)

#### A.E.C. / V.E. Team Admin.

Dan Darsey  
W4DED  
[w4ded@arrl.com](mailto:w4ded@arrl.com)

#### A.E.C. / CERT Team Liaison

David Ridgeway  
KK4SUO  
[dpridge-way@bellsouth.net](mailto:dpridge-way@bellsouth.net)

#### A.E.C. / Sheriff's Dept. Liaison / PIO

Mark Clark NI2Y  
[NI2Y@arrl.net](mailto:NI2Y@arrl.net)

### Weekly Training Net:

Sunday 21:30 GMT

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

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

**August** : RMS Express/Winlink - send ICS-213 to WX4GMA ([WX4GMA@Winlink.org](mailto:WX4GMA@Winlink.org))

Sunday (5:30 pm) GA ARES D-RATS - send ICS-213 to port: [gaares.ratflector.com:9000](http://gaares.ratflector.com:9000)

Sunday (21:30Z) Butts CO FM Training Net — 147.285 MHz (131.8 PL) Winlink: WX4BCA

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

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

Newsletter Submissions—[NI2Y@arrl.net](mailto:NI2Y@arrl.net)

# EDITOR'S NOTES

The dust has settled from a very busy summer BCECA schedule and yet let's admit it that there is much more to come.

I must admit that I waxed a bit (maybe a good bit) sentimental with this issue of The Repeater. The amount of volunteerism and HAM knowledge is amazing when I reflected upon postings, pictures, minutes and articles. The history becomes impressive.

Recently I heard a club visitor comment that our club was unique in the overall atmosphere present in our club meetings. This member compared his prior club experiences and viewed our members as more open and welcoming when compared to prior experiences..



For me this is my first organized club experience but not my first group activity. Actually I do not consider myself a "joiner". As I looked through past pictures (before NI2Y) it became evident that this club did not just appear out of the void. There are founding fathers and foundational long term members. These members put dedication, know how, their community skills, innovation and a good dose of time, sweat and financial equity at the forefront;. Backgrounds include military, service, academic, industrial , civic, professional , ministerial and a host of others. They appear repeatedly in the photos of the past in the heat, cold, indoors, outdoors, classrooms, auditoriums, club meetings, civic presentation, tents, pavilions. and the ubiquitous metabolic work sessions (food is key). One sees women, men, young and old in these photos. I have no doubt that You know who You are and those early members have the institutional memory that I can only have glimpse into. Please remember to thank them when you get the opportunity.

Helpful and constructive criticism and even healthy disagreement can flourish in the diverse and egalitarian environment of the BCECA. There are "go to" gals and guys for nearly any HAM issue. These are all good things. They nudge us out of our comfort zones and foster our maturation. Yes, even us seniors can continue to mature I suspect.

Our club models for our newest members and provides good momentum for the future of the BCECA.

I must emphatically state that we have a great club!