

# DELTA AMATEUR RADIO CLUB

## SPARKS Web Edition

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W 4 B S R E P E A T E R S Y S T E M

146.82, 147.36, 224.42, 443.2 & 145.03 Packet

### PRESIDENT'S PAGE

#### DO IT YOURSELF

Part of the rich lore and tradition of amateur radio is experimentation. In the early days of radio communication, the experimenters had to pretty much "roll their own" parts, including making capacitors, winding coils and transformers, and adapting various pieces of hardware for radio communication. And it was these early enthusiasts who pioneered the short wave communication frequencies which allow us to have world-wide communications. When the frequencies above 200 meters were allocated to ham radio operators, they were "given" to our predecessors because it was the prevailing scientific thought of the time that these frequencies were useless for communication. Guess who proved that wrong!

When I was first licensed in 1960, lots of hams built their own equipment, either from kits or by buying the required parts and putting together their own "kits." Rigs were big and point-to-point wiring was common. Why we even had to tune and load our own transmitters...no automatic, one-button tuning. Have things ever changed and evolved in the past forty-one years! I greatly admire anyone who has the technical expertise to try to effect any sort of substantial repairs on one of our modern rigs. I now need a magnifier just to examine the thing! There is a special sense of satisfaction in making a contact on equipment that you built yourself. There are a few kits available now for some pretty complex rigs; but perhaps of more interest to the majority of us, there are some fairly simple QRP kits available that are not beyond the construction capabilities of most of us. These rigs are not terribly expensive and have the potential for producing much satisfaction and enjoyment from their construction and later use, in addition to learning some more about electronics and ham radio. We have several members interested in this sort of activity and perhaps we can get a SIG (Special Interest Group) going in this regard. Any takers??"

Another area of "homebrewing" that can be extremely rewarding is antenna building. My biggest thrill in ham radio was my first DX contact using both a transmitter and an antenna that I had built. "Rolling your own" antennas is an easy way of having something of your own creation as part of your station, and it does not have to be expensive. Wire is cheap, at least relatively so. Would you believe that you can build a 2 element monoband beam for HF work and with about 5 db gain for under twenty dollars? You can -- been there and done that. Building antennas for VHF work even requires less materials, at least for the most part.

In an effort to spark some interest in antenna building and experimentation, KB4KA and I will try to build a high performance 2 meter beam at the September meeting. The antenna is called a QUAGI as it combines cubical quad and yagi elements. I've built 2 of these little "beasties" and have had fantastic performance from them. This is a project that requires no special tools and uses readily available materials. Total cost...under \$20.00. Hope I've perked your interest. See you at the September meeting.

73, K4TTA

### VE CORNER

Summer, though it sure doesn't feel like it, is almost gone. The children are back to school and so our driving needs to have more caution and alertness. With the closing of summer and the approach of fall maybe our testing sessions won't be quite as warm. The air conditioner in the upstairs part of the meeting building seems not to be working. I get there between 4 and 4:30 to turn on the air, set up tables and chairs, and get the overall testing session organized. A bit of relaxation and the testing session and we are ready to go!!!

Thank you to the following VEs who help with this month's session: Arlene AA5GX, Don KJ4PO, Francis WA4ZYN, and Frank KA4SJM. I have now placed Frank in his proper state. He asked me last time if I was trying to tell him that he should move since I kept on giving him a 5 call! No Frank I've put you back in the greater Memphis area.

Congratulations to those that attended the August session. We had 8 people test, attempting 8 elements, passing all 8. We gained 4 new Technicians, 1 new General and 2 new Extra Class operators.

The next testing session is September 12. Remember that preprogrammed calculators and any device that copies Morse Code are unacceptable at any testing session. Bring a copy of your license and identification along with a copy of any CSCE that you may have. A CSCE is only good for 365 days. After the 365 you must retake that part of the exam already passed in order to get an upgrade. This is of particular importance to those seeking a General License. ALSO if you have passed CW with your technician class, bring a copy of that CSCE since the FCC no longer issues a Tech Plus license.

Congratulations to:  
Peter Baskind AG4KI Extra (formerly KG4OGX)  
David Craig AD5FG Extra (formerly KD5OPP)  
Leon Griffin, Jr KG4OYB Technician  
Edward Lacroius KG4OYC Technician  
Roger Mayhugh KD5PNY Technician  
Anthony Montedonico KG4OYD Technician  
Noel Pennington KD4SDE General

Respectfully submitted,  
Joan Thorne KN4PM  
ARRL VE Liaison

### SEPTEMBER MEETING TOPIC

What's a Quagi, you may ask? According to Tom, K4TTA, is's a fantastic antenna, easy to build with no special tools, using readily available materials - all for less than \$20.00! Got your attention? Come to the September meeting and watch Tom and Terry, KB4KA, build one right before your eyes!

### CENTRAL STATES VHF CONFERENCE REPORT

JULY 26-29

I drove down to Dallas, TX, for the Central States VHF Conference July 26-29. I just couldn't get enough of that good old heat and sunshine. If I had gotten there early Thursday, July 26, I could have caught Kent Britain, WASVJB's famous SIRIPLUS Tour. I'm sure any Ham's delight! When one goes to these conferences, you pay your fee and receive a conference proceedings. This is a collection of the papers that the presenters use to make presentations to the conference, a reference book on the conference. Some are a refresher, some are new and interesting projects-in progress. Early Friday morning the antenna range was set up. Marc,WB0TEM set up the 6m-432 Mhz range and Kent, WASVJB, set up the 902 Mhz - 24 Ghz antenna range.

I had taken a 432-1296 log periodic antenna that Gene, KD4JKJ, had given me several years ago, just to see how it stood up against regular yagi 3 and 4 element beams in these frequencies. It fared pretty well. It had a average gain of 8.7 across 432-1296. As you probably gathered I really enjoy building antennas. I had to have a home brew 902 antenna, since I hadn't built one of those, so I built a Kent, WASVJB, design made from a 1/4" x 1" x 36" piece of wood and some #10 and #12 copper wire. I didn't have any RF to tune it up with, but I thought I'd throw it together and see what happened. Well for an 8 element 902 beam, it had a gain of 12.1db. I guess I came pretty close. I did use a dial indicator caliper (a very precise ruler) to build it. These series of antennas, called "cheap yagis" are very reproducible. Also if anyone wants a copy of antennas tested at this conference, I will make a copy for you. There were about 80 antennas tested from 50 Mhz - 24 Ghz. There also is a pre-amp "contest" that goes on about the same time as the antenna range is going. There were some very impressive pre-amps there. I think the lowest one there was a .05 noise figure, with a 21.4 db gain. Not bad for a room temp pre-amp. After the antenna range & pre-amp contests are done, the conference really begins. Amateurs from California to Ohio to Canada are there to present their topics. The subjects range from pre-amp design, to as far out as SETI, Search for Extraterrestrial Intelligence, and there were some there with quite a lot of intelligence about VHF and above. These conferences are a gathering of some of the best in their field of VHF and above. I would say that between 60-70 percent are in the RF field as a job. The conference continued on through Saturday. The final banquet was Saturday night. Joel Harrison, W5ZN, gave a talk on "The Power of Cheese". It was more of a challenge he gave to keep our frequencies. He was saying that there are folks out there that are trying to take part of our "cheese", and if we don't protect and use our frequencies/cheese, we'll lose them.

I ended up with some really nice prizes from the banquet and enjoyed Joel's talk on "Cheese". These conferences are one of the ways someone with no RF background can get some "free" training from some pro's in the field. There are conferences for Digital, DX, QRP - just about any subject for amateur radio. This is where people come together to share ideas with each other to learn more about the radio hobby. I hope that you attend one soon. For the uninitiated, Dayton is a good place to start. There is about any subject on amateur radio at Dayton Ohio Hamfest Forums.

73, David, KD4NOQ

### VICE DIRECTOR'S NOTES

I have returned from the ARRL BoD 2nd meeting in Hartford, CT, on July 20 - 21. Bill Cross, W3TN, FCC was present at our informal meeting on Thursday evening, July 19, 2001. The meeting was great with some very good things to come out.

The Log Book of the World or electronic QSLing is going great. Everyone at Headquarters is excited to see the finished product. Log Book of the World will make use of electronic confirmations within a great repository of QSO information maintained by ARRL. Digital security methods will ensure data integrity and authenticity.

The Board members felt that amateurs should be granted the right to install an antenna having a visual impact similar to that of a home television satellite dish or other antennas that falls under the FCC's Over the Air Reception Devices (OTARD) policy. The Board also approved the filing of a petition seeking domestic, secondary allocation for the Amateur Service at 5.250 to 5.400 Mhz. No mode subbands will be proposed at this time. It was approved by the Board a plan to invite International Amateur Radio Union Region 2 countries to take part in Field Day starting June 2002.

The Board also adopted the revised band plan for 160 meters based on a proposal from the ad hoc 160-Meter Band Plan Committee. I feel the plan is a very positive one. Please, check the ARRL Web site and September 2001 QST for more details.

The Board approved a new QRP DXCC a ward. No QSL cards would be required, and there would be no time limits or endorsements. Applications for this award will likely start being accepted in early 2002.

The Board also resolved to encourage hamfest and convention sponsors to offer free admission to anyone under 16 years old and accompanied by a paying adult.

The Board also recognized ARRL Southeastern Division Vice Director Evelyn Gauzens, W4WYR, for her 22 years of service. Gauzens has announced that she will not seek another term.

These comments are just highlights of the BoD meeting. A more detailed analysis of the meeting is on the ARRL Web site and it will be in September 2001 QST. Note: Some comments are a reprint of the Board notes that may be on the ARRL Web.

Henry R. Leggett, WD4Q  
Vice Director, Delta Division  
The American Radio Relay League

### CW PRACTICE NET GETTING ORGANIZED

For those wanting to sharpen their CW skills, Freddy Bratton, DARC Director of Training is in the process of organizing a CW practice net. A list was passed around at the August meeting to gauge interest but if you missed the list, please call or email Freddy at KF4ZGJ@arrl.net or 372-4391.

### SPAGHETTI SUPPER FUND RAISER

Tony, WA4KHN, with able assistance from Lance, N4GMT, will be preparing a spaghetti dinner the second Tuesday night of October. This is Club meeting night and dinner will begin at 6:30 at the Club meeting place, Ellendale Church of Christ. All the fixin's are donated (mostly by Tony). A \$5 donation per plate will be accepted to enrich the Club's coffers. The menu will include:

Spaghetti w/meat sauce  
Salad  
Bread  
Ice tea and cold drinks

If you could bring a dessert, it would be appreciated. Dinner will be served by your 2001 Officers and Board Members. Come out to the meeting early, have some good food and fellowship, and support your Club.

CU There!!  
Terry, KB4KA

### QRP SPECIAL INTEREST GROUP TO BE ORGANIZED

Contrary to what some may think, the definition of QRP is not "any power level less than the legal limit"! Here's an excerpt from an April, 1984, QST article by Bradley Wells, KR7L, which sums it up pretty well:

"Low-power operation, or QRP, has enjoyed a surge in popularity in recent years. Why? Mostly it's the challenge of working stations the "hard way," be it during contests or everyday operation, and the great satisfaction that comes from making contacts that the "big guns" make. Most low-power ops will agree that the motivation for QRP is the same as for chasing DX -- but the rewards are inversely proportional to the amount of power used."

Even though this was written way back in 1984, QRP operation continues to be a very popular mode and for the same reasons Bradley mentioned.

I recently operated QRP from the beach on a recent vacation. I also have worked QRP mobile and have worked several Europe stations from the home QTH on a measly 5 watts! Sure, it's a little more challenging at times, but it is quite a thrill to converse such distances with a simple antenna and a rig small enough to fit in the palm of your hand, powered by mere flashlight batteries!

So how about it - is anyone interested in forming a QRP special interest group? This group would meet and discuss rigs, antennas, techniques, contesting - and any other QRP-related items we can come up with. If you are interested, please contact Alex Graham, KE4GYR, or Ken Gregg, K4DIT, either on the 146.82 repeater or at the phone number listed in the membership roster.

73, Ken, K4DIT

### AMATEUR PACKET UPDATE

The type of mode you run makes no difference. All two-way amateur communications requires you to transmit a signal over the air. A good effective antenna system is a must for proper operation of your ham station. Over the years it has become harder for amateurs to put up good systems because of ordinances and laws covering them. The ARRL has come out with a new book covering this important subject. The book is ANTENNA ZONING FOR THE RADIO AMATEUR. Written by Fred Hopengarten, K1VR, it contains useful information on understanding ordinances and laws to allow you to get permits for building your antenna system. The book is available from the ARRL and will come in handy if you live in an antenna restrictive location.

James Butler, KB4LJV

### AMATEUR HARDWARE UPDATE

Many times we need to hookup and test low current devices for Amateur Radio, QRP rigs and accessories are hooked to 12 volt supplies in the field or on the test bench. This month's project is the QRP TESTER. The circuit is built up in a video cassette box. It has wires to hook to a 12 volt source and plugs to plug in QRP rigs and equipment to test. The unit also has a built in 5 amp circuit breaker to protect the power source and equipment. The unit I built up has two sets of plugs for hooking up equipment. The video cassette box is large enough that additional types of plugs can easily be added for different hookups as needed. The unit comes in handy when running portable QRP or just working on the test bench.

I will have the QRP TESTER at the meeting to answer questions on for those who wish to build up their own unit.

SEE YOU AT THE MEETING .....  
James Butler  
KB4LJV

### SPECIAL MESSAGES:

Join us on the new PSK31 net - Thursday nights at 8:30 P.M. on 28.120 MHz. See K4TTA or K4DIT for details

Please bring a treat to the meeting to share at break time!

Got an idea for a SPARKS article? Email Ken Gregg, [k4dit@arrl.net](mailto:k4dit@arrl.net)

Got an idea for a program? Email Gary Blinkmann, [garyb@midsouth.rr.com](mailto:garyb@midsouth.rr.com)

### CONTEST CALENDAR

Here are some of the contests coming up in the next few weeks...

ARRL September VHF QSO Party. Sep 10-11. See July QST, p 112.

Worked All Europe Contest, phone. Sep 10-11. See Aug QST, p 111.

North American Sprint, CW, sponsored by NCI. 0000-0400Z Sep 9 (local time, Sep 8); phone is 0000-0400Z Sep 16 (local time, Sep 15). [www.ncjweb.com/](http://www.ncjweb.com/)

End of Summer PSK-31 Sprint, sponsored by QRP ARCI. PSK-31 only, 2000-2359Z Sep 19, 20 meters only. <http://personal.palouse.net/rfoltz/arc/psk31.htm>

ARRL 10 GHz and Up Cumulative Contest. See July QST, p 120. Sep 15-16.

Washington State Salmon Run, sponsored by Western Washington DX Club. 1600Z Sep 15 to 0700Z Sep 16 and 1600-2400Z Sep 16.; <http://www.wwdxc.org/salmonrun>

Scandinavian Activity Contest, CW, sponsored by SSA. 1200Z Sep 15 to 1200Z Sep 16 (phone, 1200Z Sep 22 to 1200Z Sep 23). <http://www.sk3bg.se/contest/text/sacscs.txt>

Tennessee QSO Party, sponsored by the Tennessee Contest Group, 1800Z Sep 16 to 0100Z Sep 17. <http://www.k4ro.net/tcg/html/>

Radio Club Panama XXX Anniversary Contest, sponsored by Radio Club Panama, 1200-2359Z Sep 23.

CQ WW RTTY Contest, sponsored by CQ magazine, 0000Z Sep 29 to 2400Z Sep 30. [cqwwrtty@kkn.com](mailto:cqwwrtty@kkn.com).

Louisiana QSO Party, sponsored by the Twin City Hams ARC, 1400Z Sep 29 to 0200Z Sep 30 and from 1400-2000Z Sep 30. <http://www.tchams.org/users/contest/laqp>

Texas QSO Party, sponsored by the Northwest Amateur Radio Society, 1400Z Sep 29 to 0200z Sep 30, and 1400Z-2000Z Sep 30. <http://www.k5vuu.com/lqpp/>

Alabama QSO Party, sponsored by the Central Alabama HF/VHF Contesting Club, 1800-0000Z Sep 29. <http://web.dbtech.net/~dxcc/rules1.htm>

### Special Events

Houston, CT: NARL / BEARS, W1H, 0700Z Sept 6 to 1900Z Sept 9, promoting Amateur Radio, 28.430 18.130 14.280 7.250.

Lebrunville, KY: Greater Louisville Hamfest Assn, KU4VG, 1400Z to 1800Z Sept 8, celebrating many years of commitment to Amateur Radio, 14.260 14.300 7.220 7.240.

Big Rock, IL: Le Kalb County ARES Group, W9P, 1400Z Sept 12 to 2200Z Sept 16, commemorating the 107th Annual Big Rock Plowing Match, 7.108 7.275 14.275 28.390.

Benton Harbor, MI: Blossomland Amateur Radio Association, W8KIT, 1400Z Sept 15 to 2400Z Sept 16, celebrating the 75th anniversary of Heathkit, 7.250 14.260 21.360.

Galion, OH: Crawford County Amateur Radio Club, W8BAE, 1300Z Sept 22 to 0100Z Sept 23, celebrating its 40th anniversary, 3.870 14.235 28.465 50.165.

Fort Prospect, KwaZulu Natal, South Africa: Midlands Amateur Radio Club, ZS100ABW, 1400Z Sept 22 to 1400Z Sept 23, commemorating the Centenary of the Anglo Boer South African War, 40 20 meters.

For more information on these and other contests and special events in September, please visit the ARRL contest page on the internet at: [www.arrl.org/contests/months/sept.html](http://www.arrl.org/contests/months/sept.html)

### THE W4BS ELMER SHACK

Please feel free to contact any of our ELMERS to help you enhance your amateur skills. Anyone wishing to be added to the Elmer list please contact Arlene at A5GX@aol.com or 385-0995.

K4TTA (Extra) Tom Richardson 386-6268 [k4tta@arrl.net](mailto:k4tta@arrl.net) (1,3,4,6,8,9,13,14)

KA4BLL (Gen) Ned Savage 363-9607 [nsavage@juno.com](mailto:nsavage@juno.com) (1,5,8,14, MARS, ARES/RACES, net control, traffic handling, emergency service)

KB4LJV (Extra) James Butler 294-2540 (2,7,9,11,13,14)

KD4NOQ (Adv) David Campbell 388-6166 [kd4noq@juno.com](mailto:kd4noq@juno.com) (1,2,3,5,9,10,14, slow scan TV, ATV minor)

KU4AW (Extra) Ben Troughton 372-8031 [bktrough@mem.quik.com](mailto:bktrough@mem.quik.com) (2,4,8)

N9ACQ (Extra) Bill Kuechler 368-0532 [wkuechl1@midsouth.rr.com](mailto:wkuechl1@midsouth.rr.com) (1,8,13)

WA21QC (Gen) Gary Blinkmann 794-5289 [garyblin@midsouth.rr.com](mailto:garyblin@midsouth.rr.com) (1,7,10,14)

WA4MJM (Extra) Bill Hancock 853-7192 [billwa4mjm@aol.com](mailto:billwa4mjm@aol.com) (1,2,8, emergency communications, ARES,MARS)

WMSQ (Extra) Paul Cline 385-0995 [wmsq@arrl.net](mailto:wmsq@arrl.net) (7,8,10,14, RF safety, spread spectrum, trouble shooting, soldering, electromagnetic compatibility, CFR47 rules/reg.)

K4DIT (Gen) Ken Gregg 853-7384 [k4dit@arrl.net](mailto:k4dit@arrl.net) (4,6,8,11)

Codes:  
1. Antennas  
2. APRS  
3. Contesting  
4. CW Operating  
5. Direction Finding(fox hunting) 6. DXing  
7. Experimenting/Circuits/etc. 8. HF Phone  
9. Packet  
10. Repeater Operation  
11. QRP  
12. Satellite  
13. RTTY  
14. VHF

## September 11 CLUB MEETING

7365 HWY. 70

BARTLETT, TN

MEETING STARTS AT 7:00 PM

The Month program will about  
The Quagi Antenna

Presented by:  
Tom Richardson, K4TTA  
and  
Terry Cox, KB4KA

### VE TESTING:

**Don't forget the monthly Volunteer Examiner testing session. Registration begins at 5:30p.m. and testing begins promptly at 6:00p.m. Please remember to bring two forms of identification the original and copies of any existing licenses or CSCE's you might have. Please be on time for registration, as you will not be allowed to enter the testing session after 6:00 p.m., so our volunteer VE team can finish in time to attend the club meeting. Call Joan Thorne 366-9722, if special testing arrangements are required.**

### W4BS REPEATER SYSTEM

146.82 net 8:00 PM

147.36 tone = 107.2

224.42 1.25 m repr

443.20 patch, 107.2

145.03 packet / bbs

(off the air after a direct lightning strike)

### Other Important Contacts

VE Liaison  
Joan Thorne, KN4PM  
737-5795  
[joant@mem.net](mailto:joant@mem.net)

Membership Chairpersons  
Ben Barth, AF4TV  
Eloise Barth, AF4TW  
[eloiseb@aol.com](mailto:eloiseb@aol.com)

### 2001 Board of Directors

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