

## REGULAR EVENTS

Friday General Meeting: 7:00 P.M., 1st Friday of Month, at 1715 S. 8th,  
Sep 4: (old Post Office bldg. Turn south at Hulman and 8th. Talk-in:  
146.685 RPT; (PL 151.4 MHz). Park in front or north of building.

The Board meeting immediately follows the General Meeting.  
Our meetings are open. Visitors are welcome!

Every The Club Station is open 7 - 9 P.M.; First Thursday it's Downstairs,  
Thursday: Red Cross Bldg., 700 S. 3rd. Other Thursdays, New Club Station,  
N.E. corner of 7th and Idaho. Entrance and parking east of Bldg.

## SPECIAL EVENTS

THURSDAY RF CURRENT METER BUILD ..... Sep 17

(Location will be at Glas-Col, either the meeting hall or Club Station)

RV/CAMPING WEEKEND ..... Sep 18-20

(Location will be Lincoln Trail S.P., Lakeside C.G. or Plainview C.G.)

FAMILY LEARNING DAY (Library parking lot)..... Sep 26

DEUCES WILD DUATHLON (See article below) ..... Oct 10



# THE

# BANDSPREAD

OFFICIAL PUBLICATION OF THE WABASH VALLEY AMATEUR RADIO ASSOCIATION INC.

SEPTEMBER 2009



## PICNIC, ANTENNA BUILD AND ARES FILL AUGUST AGENDA



It was another typical Wabash Valley Amateur Radio Picnic at the home of Gary, K9ERE and Pat, KA9ALI. The weather was warm and humid but we still had a record crowd.

Joe, KC9JAC and Melanie, KC9JMC, blew in from the tropics and Cody, KC9PVP, and Heather, KB9YNM, were there with the new baby (no call sign yet). John, N9YRX, again brought his 'vintage' Kenwood transceiver and also did most of the cooking. That is to say that John supervised the cooking of the meat and at the same time probably cooked a bit himself over the heat of the sun and the charcoal.

A few of the less adventuresome elected to either remain in the air conditioning or cycle themselves back and forth, passing the food tables as they came and went. The pool was also a refreshing respite for those who chose to take advantage of the 80° water.

For those who were there, the "What is it?" vertical antenna turned out to be a

Cushcraft AP8. It was produced circa 1987, the year we came to the Wabash Valley and, while in fairly good condition skin-wise, it will be a challenge to get working since it only works well, according to other owners, if it's mounted on the ground. It does have the WARC bands and yes, it needs radials... *lots* of them! It is a quarter-wave antenna, after all.

The food, as usual, was abundant, to the point that now twice in the history of this event, some of it was 'inadvertently' left in the refrigerator. "How will we ever get rid of all this food!?" -ed.

See more picnic photos, p. 2

### This Month's Program

This month's program is a pitch-in cookout / PowerPoint Summer Recap by David, N9YNF.

Chuck's again BBQing the meat!

### DEUCES WILD DUATHLON

This year the Deuces Wild will be Saturday Oct 10th. It is under new management and will be held at Mill Creek Park (We needed a change didn't we?)

Please keep this date open if possible.

If you know now you will be there send me an e-mail direct to prevent clogging this e-mail server. You can send it including your shirt size, to:

[n9yrx@hotmail.com](mailto:n9yrx@hotmail.com)

We will need about 20-25 people to cover the course. I promise it will not be as confusing as the CAMA Rally with its many different routes.

John VanSandt, N9YRX

### DIRECTIONS TO MILL CREEK PARK

- From I-70, take the Illinois 1 exit south toward Marshall to the intersection of U.S. 40.
- Turn West on U.S. 40 and go about 1/2 mile.
- Look for the brown Mill Creek Park sign on the right. That is Clarksville Rd. Turn right.
- Go about 9 miles. The park is on the left. You should see a small portion of the lake from the road.

If you get lost, or or even if you don't, there will be a talk-in on the 146.685/Rpt (pl-151.4).

### Local Nets

Tuesday Evening 8:00 P.M. ET  
Parke Co. Em. Svs. Net 146.745/R

Wednesday Evening 9:00 P.M. ET  
Clark Co. ARES Net 146.595/S

Thursday Evening 9:00 P.M. ET  
CAARLA Net 146.685/R

Sunday Morning 8:20 A.M. ET  
Vigo Co. ARES NET 146.685/R

Sunday Evening 9:00 P.M. ET  
WVAVA Net 146.685/R\*

\* First Sunday of the month is Simplex night. The WVAVA Net meets that night on 146.595/S





*There is no general meeting in August, so there are no general meeting minutes.*

## Board Meeting Minutes 08/30/09

The July meeting of the WVARA Board was called to order at 5:49 P.M. by President Gary Adams, W9EEU. Other officers present were Dave Pifer, N9YNF, Vice President; Nick Vinardi, N9WG, Treasurer; Bette Young, KC9GWT, Secretary; Kevin Berlen, K9HX, Trustee; Steve Shorter, NT9T, Past President; and Chuck Procarione, W9COD, Representative at Large. Gary announced that Kevin, K9HX, and Donetta, KA9MFW, are grandparents. (1) **Treasurer's Report:** The Treasurer's report was presented by Treasurer Nick Vinardi, N9WG. The balance in all accounts is \$11,106.26. Nick moved the report be accepted and Kevin seconded the motion. The motion carried. **Old Business:** (1) Repeater Upgrade - John Voight, K9GBO, is interested in helping with the upgrade. Kevin just needs the time to do the upgrade. (2) Items needed for Club Station #2 were not purchased at Dayton. They will try to do this at Indianapolis. (3) Dave Pifer, N9YNF, reported the Club now has a domain name. The list will soon be moved. (4) The September meeting is scheduled for a recap of Field Day and a grill-out. Eating will begin at 6:30 P.M. (5) A trailer load of equipment from the K9VDQ estate will be taken to the Indy Hamfest. (6) Kevin hasn't been able to see the person he needs to contact regarding the Parke County Digi. (7) It was discussed that some laptops are getting old and need to be updated before next years Field Day. **New Business:** (1) The annual WVAR Picnic will be held Saturday, August 8, at Gary and Pat Wheeler's. We will eat about 6:00 P.M. (2) Nick will book the Armory for next year on the second Saturday of March, 2010. There being no further business the meeting adjourned at 7:44 P.M. - Respectfully Submitted, Bette Young, KC9GWT, Secretary

**The Bandspread** is the official publication of the Wabash Valley Amateur Radio Association, Inc. Organized around 1927, as a non-profit public service organization, it was affiliated with the ARRL on April 5, 1934.

### Board Of Directors:

President	Gary Adams, W9EEU
Vice-President	David Pifer, N9YNF
Secretary	Bette Young, KC9GWT
Treasurer	Nick Vinardi, N9WG
Trustee	Kevin Berlen, K9HX
Past President	Steve Shorter, NT9T
Board Member at Large	Chuck Procarione, W9COD

### Publications:

Bandspread Editor:	Gary Wheeler, K9ERE
Bandspread Facilitator:	Dave Littlejohn, N9FMD
Bandspread Printing:	Gary Adams, W9EEU
eBandspread Posting:	David Pifer, N9YNF

Submissions: e-mail the editor at [k9ere@earthlink.net](mailto:k9ere@earthlink.net)  
or mail to P.O. Box 10081, Terre Haute, IN 47801 (NOTE ADDR. CHANGE)

Contact our Webmaster, David Pifer, N9YNF [n9ynf@arrl.net](mailto:n9ynf@arrl.net) to join our list Serv or if you have a problem receiving the eBandspread.

Sunday Night Net Manager, Kay Brentlinger, KWOLF



**WVARA TRI-ANNUAL REPORT**  
(Checking Account 4/30/2009 through 8/23/2009)

<u><b>Income</b></u>	<u><b>Amount</b></u>
Sholl Estate Sale	\$1,019.78
Antenna Sale	\$500.00
2009 Membership	\$20.00
Dayton Bus	\$445.00
50/50 Half Pot	\$15.00
WVARA ID Badges	\$18.00
Field Day Tee-Shirts	\$362.00

**Total Income** **\$2,379.78**

<u><b>Expenses</b></u>	
Education Expenses	\$157.06
Club Station Misc Expense	\$37.15
Club Station Equip. Exp.	\$132.41
Club Station (2M rig x 2)	\$320.99
Bandspread Postage	\$22.30
June Club Mtg (Food Exp)	\$98.83
Field Day (Coax Wire)	\$112.85
Field Day (Tee Shirts)	\$413.00
Field Day (Food)	\$421.81
Dayton Bus (2010 Deposit)	\$100.00
WVARA ID Badges	\$83.46
Sholl Estate (50% of sale)	\$509.89
Web Domain	\$71.40

**Total Expenses** **\$2,481.15**

2nd & 3rd Quarter Balance	-\$101.37
1st Quarter Balance	\$5,944.59

**Checking Amount Total** **\$5,843.22**

**(Money Market Account)**

Beginning Balance 1st Quarter	\$4,370.54
1st - 3rd combined interest	\$19.83

**Money Market Total** **\$4,390.37**

**PETTY CASH TOTAL** **\$96.00**

**Combined Total (YTD)** **\$10,329.59**

# Double Bazooka Antenna

The WVARA recently held an antenna build night at the Club meeting place for those interested in making a Double Bazooka antenna. We had a number of interested parties show up and we set to work. (See photos opposite page.) For those who are still interested, following is a brief explanation of how it's built.

## Supplies:

- Coax of your choice (we suggest RG-8X with a velocity factor of 80%)
- Appropriate tools and solder
- 300 ohm twin lead or ladder line
- 2 insulators & nylon line
- 5 'devices' to strengthen the antenna at its weak points ( d, e, f, g and h)
- Burn kit, if applicable

We followed a number of directions off the web along with some ideas of our own. Some worked better than others, but part of experimenting is finding out what *not* to do as well as what works best for you.

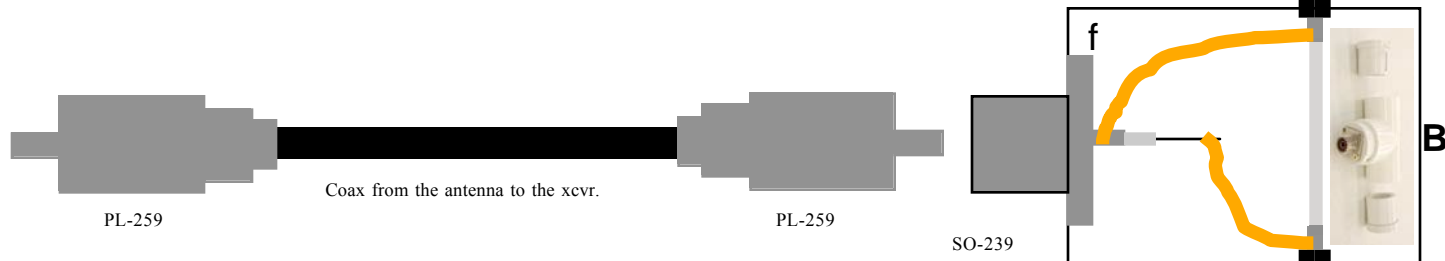
We checked all of them out on an analyzer afterward and they ultimately checked out in the acceptable range, keeping in mind that they were a bit too close to the ground/floor to accurately show the true operating SWR.

An inherent weakness of a Double Bazooka is it's... weakness, i.e., the physical connection points [d, e, f, g and h]. We recommend that these junctions be reinforced before finally erecting the antenna outside. The methods of reinforcement are limited only by one's imagination. The *center* reinforcer of choice that night was a PVC "T" with three end plugs (shown in it's place in the diagram at center right).

• You can skip the twin-lead and use *all-coax*, by cutting the coax at the junctions 'e' and 'g', shorting the braid to the center conductor at these two points. We recommend that you do *not* cut the center lead or the braid; just expose it carefully, remove the inner insulation and solder the braid to it. (We didn't say this would be easy.) Finally, the connection should then be strengthened in some manner as mentioned above. Have fun!

Yet another suggested method for increasing strength is to use ladder line in place of the 300 ohm twin lead.

We've included some basic notes below and some websites you can reference to if you're interested in building one of your own.—ed, with help from K9DUR



Below is the formula for any frequency antenna; as an example we chose 40 meters @ 7.15MHz.

Formula for any frequency antenna.		40 meters @ 7.15MHz.	
1. Total length of antenna (A+B+C)	$467^* / \text{Frequency in MHz}$	=	65 ft 4 1/2 in.
2. Total coax length (B)	$= 374^* / \text{Frequency in MHz}$	=	52 ft 3 1/2 in.
3. Total twin lead (A+C-B)	= Total antenna length MINUS the total coax length		= 13 ft 1 in.
4. Twin lead each side	= 1/2 of results in step 3	=	6 ft 6 1/2 in.

Notes:

\* The lengths above are consistent with a velocity factor of 80%. They will change if *your* coax has a different velocity factor. Check it!

- Twin lead is suggested only to add to the antenna's broadband characteristics.
- Allow several inches, maybe even a foot or more on each end for any needed SWR tuning and tieoffs of end insulators! If a trailing tinned piece of wire is a part of each end, it can be carefully trimmed with a pair of wire cutters to bring the SWR down, if necessary. Of course, if the antenna is too short, then you'll need to solder an additional piece of wire onto each end. —ed

## References

<http://www.hamuniverse.com/bazooka.html>

[http://www.qsl.net/we6w/projects/baz\\_std.txt](http://www.qsl.net/we6w/projects/baz_std.txt)

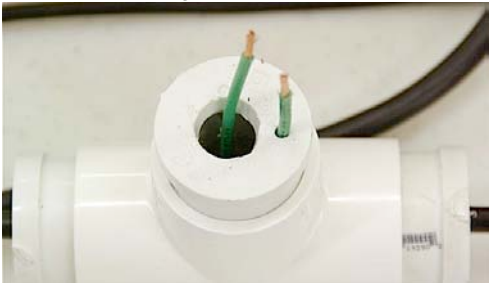
<http://www.leeslimo.com/bazooka.htm>

<http://k9dur.rnaconsultingservices.com/downloads.htm> (Click on "Dipole Designer")





Bill, KW9UFO and Chuck, K9COD, measure and cut coax lengths.



The prepared center wires from the coax are fed through holes drilled in the plug.



Bill and Chuck check the SWR on the 6M. It does not pass the first time; there is an open somewhere.



Meanwhile the first 20M antenna passes!



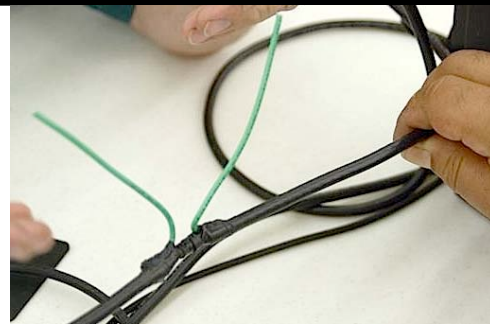
John, N9YRX, and Chuck fabricate center housings from PVC "T"s.



Bill, Chuck and Nick, N9WG, prepare to mount the SO239 to the "T".



The guys are busy soldering *something!*?



Meanwhile, the center of the coax portion is prepared to be put in the "T".



The SO239 is soldered into place. See the finished "T" on the facing page.



The junctions between the coax and the ends, in this case a piece of solid wire instead of twin-lead, are soldered together.



They found the open and this time Ray says the 6M Double Bazooka passes muster! All is well!





At an organizational meeting of Vigo County ARES on Thursday, August 12, at the Glas-col meeting hall, new Vigo County E.C., Doug Mullens, KB9JLR, called for Amateur Radio operators to commit to training and preparation so that we can be of significant help to local emergency management should another disaster such as the June flooding of 2008 occur again.

If we are to be accepted by existing disaster agencies and maximize our value as an efficient provider of emergency services, Doug said, we must be prepared to learn standardized procedures by participating in mandatory training sessions.

He also emphasized that Vigo County ARES must remain above local politics in order to integrate members of all local clubs and also non-club-affiliated hams in the area.

Doug also addressed the ARRL-required structure which dictates that each county is separate and although many counties in our area do not and will not have an ARES organization, we are currently required to respect the concept of separate county and state chains of command and organization. In reply to this there was a discussion of the fact that the ARRL mandate does not account very well for rural and state-line realities such as we have here in the Wabash Valley. There was also some uncertainty as to whether rank-and-file ARES members are required to be current ARRL members as well. Stay tuned on that.

Amateurs attending the meeting were furnished with a membership application, a mission statement and 3-page list of communications procedures which all hams should have learned prior to receiving their licenses. It never hurts to refresh ourselves, however.

Modes of local ARES communication were discussed including less reliance upon repeaters by use of simplex frequencies, e-mail and phone trees. The value of the existing pager system was also discussed, even though it relies on a repeater for optimum coverage.

All interested Amateur Radio operators are encouraged to contact Doug at [kb9jlr@yahoo.com](mailto:kb9jlr@yahoo.com) for information regarding Vigo County ARES participation in up-coming events.

## RYVES HALL SHOW AND TELL

On August 8, 2009 the annual "Celebrate the Family Table" event was held at Ryves Youth Center at Etling Hall. The event was a collaboration between the youth center and Families By Choice. Several churches and social service agencies came together to support the belief that families should come together. Years ago it was a common practice for families to eat their dinner together and talk about the day's events.

Mayor Duke Bennett was honorary head of the table at the event. Gospel music, as well as a free point shooting contest was also offered. Another popular site was the KC9EKW amateur radio station. Manning the station (left to right) was Dave Littlejohn N9FMD, Doug Mullens KB9JLR, and Wil Hilderbrand. Wil works at Midwest Communications and was very interested in amateur radio. He remembered the days when Chad Zerkle worked with him at 100.7.

Both Doug and Dave have been working hard to help at the youth center. Doug has been helping man the ham shack as well as volunteering with the Ryves Neighborhood Association. Dave is currently installing a new telephone system at Ryves as well as helping with Amateur Radio projects.







## HAPPY TIMES

### WABASH VALLEY AMATEUR RADIO ASSOCIATION MEMBERSHIP APPLICATION - 2010

Please complete this form and include it with your dues. You may return this application in person or mail to:

WABASH VALLEY AMATEUR RADIO ASSOCIATION, INC.  
P.O. BOX 10081  
TERRE HAUTE, IN 47801

Name: \_\_\_\_\_ Call: \_\_\_\_\_ License Class \_\_\_\_\_ ARRL MEMBER? ☐

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone ( ) \_\_\_\_\_ - \_\_\_\_\_ E-mail address \_\_\_\_\_

Date of Birth (Mo/Dy/Yr) \_\_\_\_/\_\_\_\_/\_\_\_\_ Year first licensed \_\_\_\_\_ Year of last WVARA membership \_\_\_\_\_ New Member? ☐

ARES member? ☐ QCWA member? ☐ RACES member? ☐

This newsletter will come to you by e-mail in .pdf format unless you specifically request a paper copy below. We encourage you to choose the electronic version because: 1. It costs the Club less to produce and deliver it; and 2. In the electronic version, the pictures are in color and it arrives earlier! Of course, you can still make a paper copy of it on your printer, if you wish.

If you are applying for a family membership please list below the licensed family members [living at home] that you wish to include.

Name: \_\_\_\_\_ Call: \_\_\_\_\_ License Class \_\_\_\_\_ ARRL MEMBER? ☐

Name: \_\_\_\_\_ Call: \_\_\_\_\_ License Class \_\_\_\_\_ ARRL MEMBER? ☐

Name: \_\_\_\_\_ Call: \_\_\_\_\_ License Class \_\_\_\_\_ ARRL MEMBER? ☐

Please add \$5 per family member above to the Single rate below. To include ARRL membership, see a current QST for the amount.

Dues options: Single (\$20) Family (Single + \$5 per family member) Add ARRL membership?\* Total pmt. \$ \_\_\_\_\_

Note: 1. Payments made Sept. - Dec. apply to membership for the following year; 2. ARRL also has a family membership program as well. See QST.

\*Club gets a rebate from the ARRL!



## The President's Corner

We had a very nice building session this month. We had planned to hold the session in the club station, but the large turnout made us move to the annex building where we have our club meetings. There was no way we could have fit everyone into the club station!!!! Everyone had a great time building coaxial dipoles, otherwise known as double bazooka dipoles.

We had a design that was provided, but, as hams always do, there were redesigns taking place during the build. We learned how to use the MFJ analyzer to find the velocity factor of a particular type of coax, and Ray, K9DUR, explained why this type of antenna is more broad-banded than a regular dipole. After everyone completed their antennas, Ray and Ron checked them with the analyzer. Only one ended up with any issues and that was quickly identified as a cold solder joint on the ground side.

It was a fabulous evening with a bunch of great hams, and we are already looking forward to our next session on September 17<sup>th</sup>. We will be building RF current meters to use in evaluating your antenna. We will take a look at why a multiband antenna will work, but why a resonate antenna is better using the RF current meter as proof. Why SWR is good to keep low, but feed point impedance also needs to be watched and we can do it with the RF current meter. Join us for a great building session in September.

73,

Gary W9EEU

**THE BANDSPREAD** - Official Publication of  
The Wabash Valley Amateur Radio Association, Inc.  
P.O. Box 10081  
Terre Haute, IN 47801



## September 2009

2009= year; NL= Newsletter only;  
COMP= Complimentary Membership;  
LIFE=Life Membership If there is no symbol showing on your mailing label, this is a one-time complimentary copy of The Bandspread. If so, we invite you to fill out the enclosed membership form to join the Wabash Valley Amateur Radio Association.

## VE TESTING

**TERRE HAUTE, INDIANA:**

**1st Sunday of even-numbered months;**

**1 P.M., Indiana time**

1715 S. 8th St., east of the main Glas-Col building. Use the front entrance to the building on 8th St.

For further info, contact:

Ray Andrews, K9DUR, (812) 535-3222

**PARIS, ILLINOIS:**

**2nd Saturday of...**

**Jan., May, Jul., Sep., Nov;**

**8:30 A.M. Illinois time**

**Burkybile Law Office**

**15175 U.S. Highway 150**

For further info, contact:

Terry Hackett, KB9ZVA, (217) 465-4884

**WALK-INS WELCOME!**

**September 12 PARIS**

**October 4 TERRE HAUTE**