Alliance Amateur Radio Club

Zero Beat

Celebrating Our 25th Anniversary!

Table of Contents

Meeting Announcement

Our next meeting will be on Wednesday, March 14th, 2012 at the Alliance Community Hospital, in the Cafe conference room. Our meetings begin at 7:30 PM

This months speaker will be Rick Swain, KK8O. Rick is the head of the Ohio Official Observer Program.

Before the meeting, you're invited to join us at 6pm for dinner. This month, we'll be meeting for dinner at the **Alliance Family Restaurant**, 428 E. State St.

You Can Design The Next Club QSL Card!

In recognition of the clubs 25th anniversary, we have announced a competition to design a 25th anniversary QSL card. This card will be used for all contacts with W8LKY, during 2012.

Also, we are soliciting certificate designs for contacts with our special event station, which will be on the air sometime in August.

So, get your best ideas together for a club QSL, and/ or Special Event Certificate. All entries should be in a format that is easily readable, but we should be able to read about any type of file.

All entries should be forwarded to Frank, WA8WHP. They'll be voted on at the March meeting. Prizes to be announced.

Announcing the 2012 Stark County VHF QSO Party

If all two Meter repeaters went off the air, would you still be able to communicate?

Well, why not find out? The 2012 version of the Stark County VHF QSO Party is coming up on Saturday, April 7th. This is your chance to find out just how good your two Meter signal really is.

The entry packet is included in this issue of the Zero Beat.

Stark County Skywarn Training Scheduled

This years Stark County Skywarn training session is coming up on Monday, March 12th, at Stark State College.

Please note, that this training is on Monday, not Wednesday, as has been done in the past. The training session begins at 6:30 PM, and is held in the Fred Silk auditorium.

The Skywarn training covers subjects, such as the anatomy of a storm system, what to report, what **not** to report, and how to report it.

Rambling
By John, KD8MQ

Hi everyone! Welcome to the March issue of the Zero Beat.

This months program is presented by Rick, KK8O. Rick is the Official Observer Coordinator for the state of OH. I've sat in on his program at the Ohio Section conference, in Columbus. Trust me, this is one club meeting you do not want to miss!

This issue may seem a tad late. But there's a reason. I set the deadline in relation to the date of our monthly meeting. Since our meeting is on the 14th this month, the newsletter deadline moves back accordingly.

Show us your shack! Thanks to everyone who forwarded shack pictures to me. All I can say is keep 'em coming!

AARC General classes are moving right along, albeit a tad slower than intended. We are shooting for a 100% pass rate!

Our AARC 25th Anniversary is being commemorated with a competition to design a 25th anniversary QSL card, and/or certificate. It isn't too late to submit an entry. Check out pg. 1 for more information.

The 3rd Annual Stark County VHF QSO Party is a little over a month away. Will you be ready? I need some help, though.

W8LKY needs to be on the air, and active during the contest. I propose that we split the operation between several members, so that the responsibility doesn't all fall upon one person. If you can volunteer for a one, or two hour shift, please let me know, or be at the next meeting to sign up. You should be able to put out a moderate VHF signal, so no HT's on the bonus station, please. We'll discuss this in more depth at the March meeting.

Also, thanks to Mike, WA8MKH for the PIC article on page 6.

That's all I have for this month. I hope to see you at the next meeting. 73, de John, KD8MQ

Meetings

The Alliance Amateur Radio Club meets on the Second Wednesday of each month. Check the meeting announcement on page 1, for the location. Talk-in is on 145.37 ®.
Meetings begin at 7:30 PM. Visitors are always welcome.

Nets

Thursday is our "net night," with the following nets held:

Ten meters
CW @ 8PM on 28.400 MHz
SSB @ 8:30PM on 28.400 MHz

2 meters
9 PM on 145.37 MHz

The Homeland security Net meets on the last Tuesday of the month, at 8:00 PM, on 147.51 simplex

Internet

Web: www.w8lky.org

E-mail: W8lky@w8lky.org

We are also on Facebook!

Newsletter Information
The Zero Beat is a publication of the
**Alliance Amateur Radio Club
P.O. Box 3344
Alliance, OH 44601**

You can submit material to the Zero Beat via e-mail to kd8mq1@gmail.com

February Minutes

73

February 8, 2012

The regular meeting of the Alliance Amateur Radio Club was held on February 8, 2012 at 7:30 PM in the first floor conference room of the Alliance Community Hospital with club President John Myers (KD8MQ) presiding. The pledge of allegiance was recited, followed by introductions. There were 9 members present along with Miriam Sanor, Elaine McDaniel and guest Steve Collins (KB8RFE).

President John announced birthdays for the month which included Doug Matthew (KB8DNQ), Dick Bontrager (KA8LKQ), Don Kingan (AB8KV) and Ed McNabb (N8FCL).

Secretary Don (AB8KV) was absent so there was no Secretary's report except that President John noted that the January minutes were in the newsletter.

Treasurer Mary Ann (KB8IVS) was absent so John gave a brief financial report that Mary Ann had sent.

Committee reports/old business:

John reminded the club about the QSL card / certificate competition with entries due by the March meeting. Frank (WA8WHP)

requested that participants print their entries and bring them in rather than email them to him. John then offered to accept them electronically and put them into a Power Point presentation so long as they were received no later than the day before the March meeting.

John also reminded the club about the Mansfield hamfest on February 12.

New business:

President John spoke to the club about the Pioneer Amateur Radio Fellowship's annual bus trip to the Dayton Hamvention. His remarks included the cost ($65 for the bus ride and entry ticket) with the departure time around 5:30 AM on May 19 and leaving Dayton in the 4-5 PM time frame that same day. He added that they normally need 20-25 riders signed up by April 24 in order to run the trip. He also noted that details would be in the next newsletter.

With no other business to address, the meeting broke for refreshments. After the break, a video was shown about the Summit on the Air. The meeting was adjourned at 8:20 PM.

Minutes respectfully submitted by Don (AB8KV), Secretary

The number 73. Of course we know it means "Best Regards"; we're Hams! But, there's so much more to the lowly number 73 than we know. Here's some trivia that I bet you didn't know:

- 73 is a palindrome, both in it's Morse, and binary representations
- 73 is the 21st prime number
- 73 is the atomic number of Tantalum
- 73 is the length of the Arecibo message, sent to space in search for extraterrestrial intelligence.
- Dr. Sheldon Cooper in *The Big Bang Theory*, played by actor Jim Parsons, said "The best number is 73. Why? 73 is the 21st prime number. Its mirror (37) is the 12th and its mirror (21) is the product of multiplying, 7 and 3.
- PT-73, the PT boat on TV's McHale's Navy
- *73* (also known as *73 Amateur Radio Today*), was an amateur radio magazine published from 1960 to 2003.
- The Blues Image song "Ride Captain Ride" (1970) begins with "73 men sailed out on the San Francisco Bay"

And, the most important use of the number 73 is to fill space when the editor has an extra column to fill.

OMO, You'll Never Be Stranded Again!

SKN

At the February meeting, Don, K8OMO was presented with a SARTA bus pass.

As the story goes, Don claims to have been abandoned at the Massillon Hamfest a couple years ago. Not wanting to see this happen again, Don was presented with the All-day pass good anywhere in Stark County.

As is his style, Don took the ribbing good naturedly. We heard that the next day, Don showed up at the SARTA bus garage, looking for the optimum mounting location on a bus, for his fox hunting antennas. HMMM!

The pictures above, and to the right shows the 1928 Hartley oscillator that OMO was running on the last SKN. It runs 5-10 watts CW on all bands.

Steve, & Patty Collins, KB8RFE, & KB8QWH sent us pictures of their shack. Lest anyone have anything to say about all the mics, Steve made sure to send along a picture of their Morse key.

SKN - cont.

The History of The Car Radio, & More

Thanks to all who forwarded the story on the history of the car radio. I appreciate all input to the Zero Beat, but I wanted to confirm that the source was not copyrighted. I did some digging, and found that the story is copyrighted to "Uncle John's Bathroom Reader". No, I am not joking.

Rather than ask for permission to reprint, I'm going to point you to an extremely interesting website, where you will find, among other things, the history of the car radio. The site is http://bathroomreader.com/

Upcoming Fox Hunts

Date	Start Time	Hunt/Talk-in Freq	Sponsor	Start Line
March 17th	**2:00 PM**	**147.525**	**Alliance ARC**	**1906 S. Union Ave, Alliance**
March 21st	6:30 PM	147.525	Cuyahoga Falls ARC	2850 Church St, Stow, Ohio

For changes, or additions, e-mail kd8mq@arrl.net

March begins the 2012 Fox Hunt Season in NE Ohio

Forget the sighting of the first robin or the first pitch at Jacobs field. For this author, the first sign of spring is the first foxhunt of the new year.

As March approaches, excitement builds, and hope springs eternal. Hope? Yes, the hope that if anyone clips a bridge with their antenna, it won't be me. Hope that the Doppler works flawlessly, which would be welcome change from 2011.

We know of three groups that hold regular fox hunts in NE Ohio. Two, Alliance ARC, and Cuyahoga Falls ARC are listed above. The third, Woodchuck ARC have not posted their 2012 schedule as of press time.

All are welcome to participate in these hunts. If you have no equipment, feel free to come, and ride-along with a more "seasoned" hunter. But, please, no laughter. Some of the hunters are armed. We can't say which ones.

For more info on Fox hunting, check out www.homingin.com, or www.neofoxhunting.org.

G1201

No Need for a Shovel !

Did you ever wonder about how many menu's there are in today's small electronic devices and the amount of information displayed on a LCD ?

Many of today's ham accessories incorporate a PIC or Microcontroller chip (PIC is a registered trademark of Microchip Technology Inc). The general name for this device is Microcontroller. This integrated circuit chip contains a microprocessor and many additional circuits that allow a wide variety of design choices along with inputs and outputs.

The Microcontroller manufacturer decides what goes into the chip from design engineers that reflect what the end user needs. Engineers and designers request to the Microcontroller manufactures their needs so they can build a device often using only one chip as the heart of the circuit. (There are additional components also needed external to the chip).

An example is the MFJ Antenna Analyzer. This instrument uses only 1 Microcontroller chip along with supporting circuitry and components. The chip is programmed at the factory to do a wide variety of functions. Internal to this Microcontroller is a microprocessor that does the computer functions by taking the information from the SWR measuring section and frequency and then performs the needed calculations. The outputs are the resistance meter and the LCD display.

Here is a general list of circuits inside of Microcontroller chips depending on the part number specified:

- Microprocessor section, Timers, Counters, Oscillators
- On-Off output lines, On-Off input lines
- USB or Serial communications ports, data ports
- Analog Input Signal ports and amplifiers, Analog Output Ports
- Read Only Memory, Random Access Memory
- Ability to accept a user program using the internal circuits

The typical chip is available from a 14 or 16 pin plug-in up to a 100 pin chip that is only 1/2 inch square. There are other choices in size and pin layout. The chips with a high number of pins require special soldering techniques but offer a lot more choices.
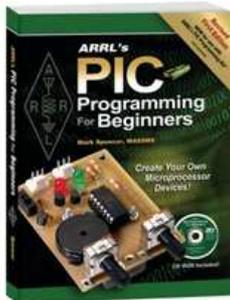
The personality of the chip depends on the software program written by the user. A programming module and programming software is necessary to work with Microcontroller chips. The chip is inserted into the programming module socket, the program is written, and the program is downloaded into the chip. The program can be changed at a later date. Some chips can be programmed without the programming module using a built-in USB port, but still need the programming software/compiler.

A good reference to PIC Microcontrollers is the company "Microchip" which can be found on the internet. The site lists choices in PIC Microcontrollers as well as software/compilers. http://www.microchip.com/

Another type of Microcontroller is called "The Basic Stamp" by "Parallax Inc." which can be found on the internet. This type of design is packaged with additional support on a module and a different type of programming language. http://www.parallax.com/

There are other companies that manufacture Microcontrollers and kits. There are other choices for programming languages. Additional information can be found on the internet, QST, and ARRL.

ARRL publishes a book "PIC Programming for Beginners" available directly or through the internet. ARRL also lists PIC kits and other information related to this subject.

http://www.arrl.org/shop/ARRL-s-PIC-Programming-for-Beginners

During the past few years, there have been many projects in QST using the Microcontrollers. Sometimes the author will make available the source code (file to download to the Microcontroller) via the internet.

Do your research and PICK your PIC or Microcontroller wisely.

73 DE MIKE WA8MKH

Pioneer Amateur Radio Fellowship, Inc.

Dayton Hamvention 2012

Saturday, May 19, 2012 5:30 AM

Are the gas pumps keeping you from the Hamvention? Is the thought of driving down to Dayton and then parking your car in some shopping center to be then bused to the Hamvention keeping you from going? Why not take our bus to the Dayton Hamvention where you can come and go to the flea market with your great purchases and leave them on the bus. The bus will be parked close to the flea market entrance.

You can save $10* if you book before April 24th.

The cost of the Bus & Entrance ticket to the Hamvention:
$65* before April 24, 2012

The cost of the Bus Only to the Hamvention:
$50* after April 24, 2012
(You will need to get your own Hamvention Entrance Ticket at gate $25,
or order by phone & have held at Will Call--possibly getting Advanced $20 price.)

We will take riders right up to departure that morning (if there are seats available) on a first come, first served basis.
Departure time is 5:30 AM SHARP, so please be on time so you don't miss the bus!
Parking will be in the back of the church.

There will be a stop for breakfast @ McDonald's and a dinner stop @ the Hometown Buffet (out of pocket expense).

Transportation is being provided by the Crossroads Transportation Company.
This bus is a smoke free bus, so there will be no smoking permitted.

To Order - Complete application & send with check/money order (*payable to "PARF"*) to:

Joy Spencer KA8TDF
2101 Bigelow St
Akron, OH 44314
Or call 330-745-5115
E-mail: KA8TDF@arrl.net

Please supply a return e-mail for your receipt confirmation.

Location of Departure is:

Akron Baptist Temple
2324 Manchester Road
Akron, Ohio 44314
Located on Rt. 93 just north of Rt. 224

Repeaters 147.135 & 146.610

Please pass the word out to all of your ham friends & computer geeks.

The above pricing does not include any tips...a hat will be passed for driver's tip.

The Extra Class Question of the Day
by Dan Romanchik, KB6NU

As many of you already know, I have written study guides for the Tech and General Class license exams (www.kb6nu.com/tech-manual). Until now, however, I've shied away from writing an Extra Class study guide. The two main reasons for this is that the material is much more complicated and there's a lot more of it.

This year, however, the NCVEC is updating the Extra Class question pool, and I've decided to bite the bullet and do it. So, I'm now in the process of writing a No-Nonsense Extra Class Study Guide.

After I got started on this, I had a D'oh! moment. It occurred to me that instead of just publishing this material in the study guide, I could also post some of it to my blog (www.kb6nu.com). So, now I have the "Extra Class question of the Day" feature on KB6NU.Com.

In reality, it's usually more than just a single question because many of the questions are on the same topic. That's OK, though, because in reality, I don't post these every day. So, it all works out. Having said all that, here's an example. The correct answer to the question is in bold.

Extra Class question of the day:

meteor scatter Amateur radio operators use many different ways to get signals from one spot to another. Perhaps one of the most interesting is meteor scatter propagation.

Meteor scatter propagation is possible because when a meteor strikes the Earth's atmosphere, a cylindrical region of free electrons is formed at **the E layer** of the ionosphere. (E3A08)

28 - 148 MHz is the frequency range that is well suited for meteor-scatter communications. (E3A09)

Unfortunately, these ionization trails are relatively short-lived, so to communicate via meteor scatter, you need to either be able to detect when these paths are available or be transmitting when the paths are available. **All of these choices are correct** when talking about good techniques for making meteor-scatter contacts (E3A10)

-15 second timed transmission sequences with stations alternating based on location

- Use of high speed CW or digital modes

- Short transmission with rapidly repeated call signs and signal reports

For more information on meteor scatter, go to:

- G3WZT's Meteor Scatter page (www.qsl.net/g3wzt/g3wzt_ms.html)

- RSGB's Meteor Scatter page (www.rsgb.org/psc/meteor-scatter.php)

For more Extra Class questions of the day, go to www.kb6nu.com.

When he's not trying to figure out how he'll be able to finish writing the No-Nonsense Extra Class License Study Guide, Dan, KB6NU is station manager at WA2HOM (www.wa2hom.org), the ham radio station at the Hands-On Museum in Ann Arbor, MI. If you have a particular question that you'd like him to make a "question of the day," e-mail him at cwgeek@kb6nu.com

Callsign-_____

W8LKY
Alliance Amateur Radio Club
Renewal – Membership Application

Dues	
Sustaining	$15.00
Full	$10.00
Associate	$5.00
Family	$1.00

Mail to: Mary Ann Royer
6255 Sandalwood NE
Canton, OH 44721

Name _____ Phone # _____

Address _____

City _____State _____ Zip _____ Birthday _____

Occupation _____ ARRL Member? Yes   No

License Class_____ Expiration Date _____ Year you were first licensed _____

E-mail Address _____

Special interests? (i.e. Dxing, Contesting, Hunting, etc.) _____

_____

Pro-Rated Dues Schedule
(New Members Only)

	April-June	July-September	October-December	January-March
Sustaining	$15.00	$11.25	$7.50	$3.75
Full	$10.00	$7.50	$5.00	$2.50
Associate	$5.00	$3.75	$ 2.50	$1.25
Family Member	$1.00	$0.75	$0.50	$0.25

_____

Please do not write beneath this line

Dues paid – Sustaining( ) Full( ) Associate( ) Family( ) $_____on _____, 20___ signed _____

March 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	Feb 2012 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 **Apr 2012** S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30			**1** 7:00 PM PCARS Net (146.895) **8:01 PM AARC CW (28.400 MHz)** **8:30 PM AARC SSB(28.400 MHz)** **9:00 PM AARC VHF (145.37(-))**	**2**	**3**
4	**5** **Ron, WC8F BD**	**6** 7:00 PM Stark Cty ARES Net (147.12) 9:00 PM Northern Columbiana Cty Training Net (147.255)	**7**	**8** 7:00 PM PCARS Net (146.895) **8:01 PM AARC CW (28.400 MHz)** **8:30 PM AARC SSB(28.400 MHz)** **9:00 PM AARC VHF (145.37(-))**	**9** 8:00 PM Massillon Net (147.18)	**10**
11	**12** 6:30 PM Stark County Skywarn Training - Stark State College	**13** 7:00 PM Stark Cty ARES Net (147.12) 9:00 PM Northern Columbiana Cty Training Net (147.255) **Mary Ann, KB8IVS BD**	**14**	**15** 7:00 PM PCARS Net (146.895) **8:01 PM AARC CW (28.400 MHz)** **8:30 PM AARC SSB(28.400 MHz)** **9:00 PM AARC VHF (145.37(-))**	**16** 8:00 PM Massillon Net (147.18)	**17** 2:00 PM AARC Foxhunt
18	**19**	**20** 7:00 PM Stark Cty ARES Net (147.12) 9:00 PM Northern Columbiana Cty Training Net (147.255)	**21**	**22** 7:00 PM PCARS Net (146.895) **8:01 PM AARC CW (28.400 MHz)** **8:30 PM AARC SSB(28.400 MHz)** **9:00 PM AARC VHF (145.37(-))**	**23** 8:00 PM Massillon Net (147.18)	**24**
25	**26**	**27** 7:00 PM Stark Cty ARES Net (147.12) 8:00 PM Homeland Security Net (147.51) 9:00 PM Northern Columbiana Cty Training Net (147.255)	**28** **Don, K8OMO BD**	**29** 7:00 PM PCARS Net (146.895) **8:01 PM AARC CW (28.400 MHz)** **8:30 PM AARC SSB(28.400 MHz)** **9:00 PM AARC VHF (145.37(-))**	**30** 8:00 PM Massillon Net (147.18) **Charles, N8LGE BD**	**31**

The AARC
Wayback Machine

Here again are some of the highlights from the last 20 years of the Zero Beat. you can read them at http://www.w8lky.org/newsltrs/.

March, 1987 (Editor, KB8AKQ)

• Our club affiliation had come through, and to celebrate, we were planning a banquet at the Bonanza Steak House.

• The program for the next meeting was to be on Communication Satellites, and provided by John, N8GIE.

• Our dues schedule had been voted on, and passed. Interestingly, it was the same dues schedule that exists in 2012; 25 years later!

• Eric, N8HHV was running a CW practice net on 28.175, each Thursday night.

• John, N8GIE was named Ham of the Month.

• We were raffling off a Yaesu FT-209 HT as a fundraiser.

• Novice enhancement was to take effect on March 21, 1987. Novice, and technician class operators were to gain phone privileges in 10 ten meter band, as well as on 220 MHz.

March, 1997 (Editor, N8SH)

• There was a article by David Hostetler, entitled "Amateur Radio, My Early Beginnings".

• Don, K8OMO was named our 1997 Ham of the Year.

March, 2002 (editor, KE8VE)

• The newsletter was an abbreviated edition, put out by Larry, KE8VE, so that KD8MQ could work on his schoolwork.