LFCARC
P.O. Box 3
Lancaster, OH 43130

K8QIK

January 2006

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The Ragchewer

January 2006

The monthly newsletter of the Lancaster & Fairfield County Amateur Radio Club

On the Web: www.k8qik.org

Club Meetings :

1st Thursday of every month at 7:30 pm at the club house.

Radio Night:

Every Thursday except the 1st Thursday at the club house, 6:30 pm to 8:30 pm

VE Testing:

The third Sunday of every even numbered month. Register at 9:30 am and testing at 10:00 am

Club House Location:

On State Route 37 (Granville Pike) next to Beavers Field.

Net:

Mondays at 9:00 p.m. 147.03 MHZ (+.6)
146.70 MHZ (-.6) Alternate Freq.
443.875 MHZ (+5)

Club Packet BBS
145.53 MHZ
K8QIK-1 BBS
K8QIK-2: Ohio53

Weather Spotter Net:

146.67 Repeater with 123Hz tone every Tuesday at 7:30 p.m.
Alt frequency 147.24 MHZ

January Birthdays

John L. Wilkinson	WB8WEK
Richard A Lytle	W8THU
Robert J Northrup	KC8PSW
Gary Boyer	K8BY
Mark S Urbine	KC8TUW
Gregory F Shires	KC8OZP
Constance L. Snoke	N8LPC
Juanita R Gaffney	KC8OYO
Edward L. Campbell	WD8PGO
Michael P Hamilton	KC8LCY
Albert "Tom" T Whited	KB8UVJ

Every Thursday Night

Radio night is every Thursday at 6:30 p.m. (except the first Thursday which is the club monthly meeting). Work a little HF, make a few DX contacts, maybe build something? How about a hot cup of coffee and a few good stories? We'll have them all waiting for you.

Christmas Party

The Christmas party December 17th at the Ponderosa Restaurant was a huge success. The door prizes far exceeded the cost of the meal for everyone.

Kay Hanna deserves a huge thank you for her Herculean effort in bringing it all together.

A special thank you to Universal Radio Inc., in Reynoldsburg for the donations to our door prizes.

Free Swap and Sell

If you have anything ham radio related, you can swap it or sell it here. List your items for free. Give a price and how to contact you. Send the list to K8QIK@columbus.rr.com

2005/2006 Officers

President:
Don Stephenson
WD8PCF

Vice President:
Scott Snoke
WD8IXO

Treasurer:
Ed Campbell Sr.
WD8PGO

Secretary:
Robert Northrup
KC8PSW

Activities Manager:
Kay Hanna
KC8HJW

Station Engineer:
John Hilliard
W8OF

Trustee:
John Hilliard
W8OF

Editor:
Jack Travis
AE8P
(740) 687-1985

Meeting Minutes 5 January 2006

At 7:30pm meeting called to order by Don Stephenson - WD8PCF who led the pledge of allegiance.

There were 16 members and 2 quests present.

Our visitors were Dave Kennedy – WA8EUT and Griffin Warren – KG4IDG.

Secretary Report: Robert Northrup - KC8PSW
Motion to accept by Charlie - N8KZN and second by Fred – W8FZ.

Treasurer's Report: Ed Campbell, Sr. - WD8PGO.
Motion to accept Bob- KI8JM and second by John, W8AGS

Trustee Report: John Hilliard - W8OF
No report.

VP Report: Scott Snoke - WD8IXO
No Report

Activities Manager: Kay Hanna - KC8HJW
No report.

Station Report: John Hilliard - W8OF
No report.

VE Testing: Allan Sellers - KB8JLG
Report given by Fred – W8FZ. Reported 6 exams were given for 4 people. 1 passed.

Monday Night Net: Position is open

Jan 9 Charlie – N8KZN	Jan 23 John – W8AGS
Jan 16 Don – WD8PCF	Jan 30 Fred – W8FZ or John – W8OF

Ragchewer: Jack Travis - AE8P
Jack thanked everyone who has submitted materials for the Ragchewer thus far. But he said he is struggling to find material for the Ragchewer for this month's "chewer". If you wish to submit an article, news item, cartoon, or other Ham related bits of trivia, you can email him at K8QIK@columbus.rr.com

Emergency Coordinator: Ed Campbell - WD8PGO
No Report
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Safety Report: Scott Snoke - WD8IXO
No Report

The Flower Fund: Juanita Gaffney – KC8OYO
No report.

The 50-50 Club: Kay Hanna - KC8HJW
No report.

Old Business:

- Fire extinguishers - Charlie -N8KZN reported he has made contact with the company who will charge them but there has been a problem synching schedules to get it done. He will keep pursuing until completed.
- About the tower rotor, Charlie -N8KZN stated, "It's not cold enough yet to get it done!" In truth, all the parts are here so need the time to get them installed.
- The club's web address has been corrected to K8QIK.ORG from K8QIK.COM. The hosting company was called and they said the "com" extension was incorrect for the club and the "org" extension was correct. So check out the new link.
- Mention was made of VE Testing dates and times in media publications. Since Allan – KB8JLG was not at this meeting, no one knows the status.
- The repeater linking effort that was reported in last months Ragchewer brought good discussion but John – W8OF was not present to give us an update. It appears the 440 repeater is on its last legs. John should provide us a status of the linking effort and the repeater in February.

New Business:
Bob – KI8JM noted that a Mr. Jeff Bell – W8DLI has expressed interest in purchasing or selling for us the large amount of old radio and TV tubes and a tube tester stored in the clubhouse basement. Jeff said he would sell them on EBay for the club but there was no other detail known last night. Bob will contact Jeff and have him come to the February meeting to discuss this idea further and make his proposal

It was mentioned by several members that a possible new repeater location might be available at the Sugar Grove fire tower location. Andy Penfield,
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who is the local contact for the Fire Tower Association (FTA), is also an Amateur Radio advocate. It appears this site is pretty high off the ground at about 90 feet and would give good footprint coverage over a large area. The club would need to study his proposal for the cost of installing AC power, a hut for the equipment, antenna coax and an antenna. He will be asked to provide further info to the club

As a general reminder to all members and interested parties, the club holds a "Radio Night" each Thursday evening except the first Thursday evening, which is meeting night. Radio Night is for the express purpose to learn something about our hobby, share some food, work on projects or just hang out. Come about 6:30 PM for the food and the action starts about 7:00PM.

This is a notice for past club officers who are no longer serving as an officer to return your club house keys so that new members may use them. Please come to the February meeting or mail your key to our club treasurer Ed Campbell, 1243 Quarry Rd SE, Lancaster, Oh 43130.

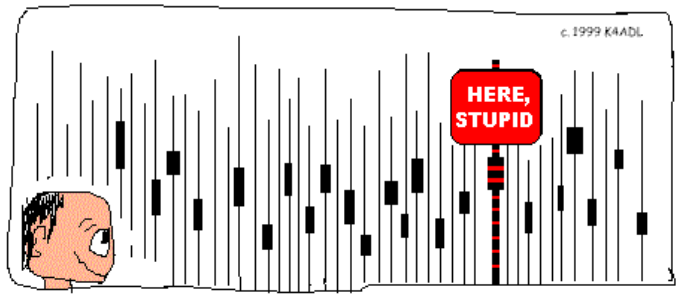
Applications for our 2 guests were circulated for their first reading/review.

Motion to close the meeting by John – W8AGS and second by Bob – KI8JM

Meeting adjourned at 8:14pm.

Respectfully submitted,
Robert Northrup - KC8PSW

Complements of www.gsl.net/k4adl/



OWING TO HIS EXCELLENT BUT SOMEWHAT SELF-EFFACING SIGNMAKING SKILLS, LEONARD QUICKLY LOCATES HIS VEHICLE AT THE DAYTON HAMFEST.

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Scholarships Available

The Foundation For Amateur Radio, Inc., a non-profit organization with headquarters in Washington, D.C., plans to administer fifty-four (54) scholarships for the academic year 2006-2007 to assist licensed Radio Amateurs. The Foundation, composed of over seventy-five local area Amateur Radio Clubs, fully funds three of these scholarships. Ten are funded with the income from grants. The remaining forty-one (41) are administered by the Foundation without cost to the various donors.

Licensed Radio Amateurs may compete for these awards if they plan to pursue a full-time course of studies beyond high school and are enrolled in or have been accepted for enrollment at an accredited university, college or technical school. The awards range from $500 to $2500 with preference given in some cases to residents of specified geographical areas or the pursuit of certain study programs. Clubs, especially those in Delaware, Florida, Maryland, Ohio, Pennsylvania, Texas, Virginia and Wisconsin, are encouraged to announce these opportunities at their meetings, in their club newsletters, during training classes, on their nets and on their world wide web home pages.

Additional information and an application form may be requested by letter or QSL card, postmarked prior to April 30, 2006 from:

FAR Scholarships
Post Office Box 831
Riverdale, Md 20738

The Foundation for Amateur Radio, incorporated in the District of Columbia, is an exempt organization under Section 501(C)(3) of the Internal Revenue Code of 1954. It is devoted exclusively to promoting the interests of Amateur Radio and those scientific, literary and educational pursuits that advance the purposes of the Amateur Radio Service.

February VE Test:

The next VE test will be Sunday February 19th at the club house on Route 37. Register at 9:30 a.m. and testing at 10:00 a.m. Even if you don't think you're ready. You might surprise yourself.
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Get Published

Submission of articles are always encouraged, but if you don't want to write, give me an idea and I'll write it and credit you with the idea (if you want). Talk with me.
This publication ultimately is created to serve the club and its needs. This is not a political or religious forum so they will be kept out of the newsletter. I will not censor anything that is done in good taste and stays away from controversial subjects and doesn't stray too far from ham radio interests. My email address: K8QIK@columbus.rr.com or
My telephone # is: (740) 687-1985
between 10:00 a.m. and 10:00 p.m.

Upcoming Hamfests

January 15 is the Scarfest 2006 held in Nelsonville. You can get more information on line at http://www.scarfclub.org

January 29 is the Tusco Amateur Radio Club hamfest held in Strasburg. You can get more information on line at http://noard.com/tuscoarc.htm

February 5 is the Northern Ohio Amateur Radio Society Winterfest. You can get more information on line at http://www.NOARS.net

February 12 is the Mansfield Mid-Winter Hamfest and Computer Show. You can get more information on line at http://www.iarc.ws

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FUDGE

4-1/2 or 5cups White Surgar
1 12 oz Can Evaporated Milk

Bring to boil. Boil 7 to 8 minutes (no longer)
Add 2 sticks or ½ pound butter (or margerine)
Add 2 tsp vanilla. 18 oz chocolate morsels, mix well
Add 10 ½ oz package marshmellows (mix well)
Add 2 cups chopped walnut, again mixing well
Pour into pan while hot (use 12x12)

You can also use same recipe for white chocolate. If you use peanut butter chips do not use walnuts. Your choice. If you want little creamery you can use a few more marshmellows.

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Why An Amateur ?

By W. L. Matteson
Reprint from QST, December, 1919

Herewith enclosed is a suggestion on which I would like to hear the opinions of others in your magazine.
Ever since the earliest days of wireless, the many men and boys who have undertaken to build their own sets or to operate any set, whether for pleasure or for experimental purposes, that did not come under the classification of Commercial or military work, have been termed "amateurs".

In all other lines of work, "amateur" means one who is either learning or is not proficient in his work. Now can the people that are daily experimenting and operating their own sets be rightfully called amateurs? Hundreds of men and boys have sets that commercial companies might envy. Again, hundreds more can operate their sets every bit as efficiently as the man in the land stations, ship stations, in the military and Naval Forces of the world, men who are termed "Radio Operators" in fact many commercial operators could well take lessons from some of our leading amateurs in operation of radio sets.

Really now, are these so called amateurs, amateurs in the true sense of the word?

An average outsider hearing the word "amateur" applied to somebody in the wireless game, naturally concludes that this person is a beginner, and looks upon him as a "nut".

Many unknowing land wire telegraphers, hearing the word "amateur" applied to men connected with wireless, regard him as a "ham" or "lid".

"Ham"! Possibly, but not probably. Men who can show many of them up when it comes to receiving signals through static and other interference which corresponds to working a "bad wire" in land telegraphy. Men who can send signals twice as clear and readable as some of the land operators can send their Morse. Men who understand the technicality of wireless and the working of their sets and the subject of wireless in general. Whereas, nine out of every ten land wire telegraphers in this country do not even know the fundamentals and working of a simple duplex set, or a single wire repeater. Yet these

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wireless men are termed "amateurs" because they operate their own stations, and therefore the land wire man has a right to think this radio man is a "ham".

I am speaking of the more advanced men in the game; men who have studied the subject thoroughly and are experienced in the operation of their sets; not necessarily the eleven year old boy who has just taken it up and has a set consisting of a tuning coil, mineral detector and an old telephone receiver. These boys are true amateurs of course but with an average amount of study and experimenting will soon get out of that class.

Many men, previously Naval and Military wireless men, are coming back from the war and are putting up their own stations for experimental purposes and for pleasure. Are these men who have worked in some of the complex radio stations of the world to be called "amateurs"?

I, for one, favor the abolition of the word "amateur" used in connection with the wireless men of this country who own and operate their own sets.

What are opinions of others on the subject?

How to Use A Ham Repeater

A repeater is a two-way radio system that receives on one frequency, then it re-transmits what it hears on another frequency; at nearly the same time.

Why it's needed: Your mobile or handheld transceiver, has a limited range due to it's low power, antenna height with respect to the radio horizon and RF attenuating surroundings. Repeater systems are used to "transfer" your transmitted and received signals to higher elevations electronically using large, efficient antennas, low loss feed lines and a transmitter and receiver that is rated for heavy or continuous duty. A repeater "gets out" your signal and receives the station you are talking to with a far greater range and coverage area!

The Basic Repeater Components: Antenna:
Most repeaters use only one antenna. The antenna is used on transmit and receive signals that are going into and out of the repeater. It usually is a high performance, heavy duty, and very efficient antenna located as high on a tower or structure as we can get

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it above the surrounding terrain. Antenna systems for repeater use are usually costly and have high gain.

Feed line: The feed line used on most repeaters is not just a piece of coax cable. A type of specialized feed line called hard line is used. It is similar to cable TV line that you see strung between power poles around town. The signal loss with hard line versus regular coax is much lower, so more power gets to the antenna and weaker signals can be received.

Duplexer: The duplexer separates and isolates the incoming signal from the outgoing and vice versa. It prevents the receiver and transmitter from "hearing" one another by the isolation it provides. A duplexer has the shape of tall cans and is designed to pass a very narrow range of frequencies and to reject others. It helps to reject very strong nearby frequencies from other repeaters or RF producers from getting into the repeater system.

Receiver: Receives the incoming signal, and is generally very sensitive and selective, which helps weaker stations to be heard better by the repeater. It is set to receive the input frequency. It's also where CTCSS (Continuous Tone Coded Squelch System) or "PL" decoding takes place.

Transmitter: Most "machines" as repeaters are sometimes called, have a transmitter composed of an "exciter" and a power amplifier. The exciter modulates the audio at the proper transmit frequency, and the power amplifier simply boosts its level so the signal will travel further. Many repeaters use 100 watts or more.

Controller: This is the brain of the repeater. It handles repeater station ID using either CW or voice, activates the transmitter at the appropriate times, and sometimes performs many other functions depending on the sophistication of the repeater. Some also have a Digital Voice Recorder for announcements and messages. The controller is a small computer that's programmed to control a repeater.

What is Offset?: In order to listen and transmit at the same time, repeaters use two different frequencies. On the 2 meter ham band these frequencies are usually 600 Khz's apart. On other bands, the offsets are different. As a general rule, if the output frequency (transmit) of the repeater is below 147 Mhz, then the input frequency (listening) is 600 kilohertz lower. This is referred to as a negative offset. If the output is 147 Mhz or above, then the input is 600 kilohertz above. This is referred to as a positive offset.

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Note: There are exceptions to the rule so check local repeater listings.

Why use an Offset?

Without having an offset between the transmit and the receive frequencies, the repeater would simply hear itself when it was transmitting on the same frequency it was listening on! Therefore, to use a repeater a user must use a different transmit frequency than receive frequency. Your transmit frequency is the same as the repeater receiver is listening on. This is a form of duplex, or two frequency operation. It is known as half-duplex as you do not receive and transmit at the same time but normally use the push-to-talk button on your microphone to switch between the two. Cell phones use "full" duplex so each party can hear the other while the other is talking.

Even with the offset, the two frequencies are close enough that some isolation is required. Again, this isolation is done by the Duplexer.

What is a PL or CTCSS Tone?

PL, an acronym for Private Line, is Motorola's proprietary name for a communications industry signaling scheme called the Continuous Tone Coded Squelch System, or CTCSS. It is used to prevent a repeater from responding to unwanted signals or interference. Tone Squelch is an electronic means of allowing a repeater to respond only to stations that encode or send the proper tone. In other words, if a repeater is set up to operate only when a PL tone of say, 71.9 hz is heard by it's receiver, then it will allow the transmitting station access. If your station (your mobile, base or handheld) does not transmit the tone when you key up, then the receiver of the repeater "does not hear" you and will not be usable by your station until you set the tone in your radio. Any station may be set up to transmit this unique low frequency tone that allows the repeater to operate. If a repeater is "In PL mode" that means it requires a CTCSS tone (PL tone) to activate the repeater. Due to severe congestion of ham repeaters in some areas, most repeaters are "PL'ed". These repeaters were once called closed repeaters.

What Happens When You Key Your mic?

Let's "key up" a repeater and see what sequence of events are created.

You set your transceiver controls for the 147.03 "machine" and listen to see if it is in use...nothing heard.

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You key your mic and put out your callsign...."This is KC8 - - - listening ". Then release the mic button.

Assuming your station is within range, the repeater antenna picked up your signal with it's antenna on 147.63 (your transmit frequency set to the standard offset and the repeater's receive frequency) and sent it down the feed line to the duplexer.

From there it was sent to the repeater receiver and converted to an audio signal (just like the sounds coming from your speaker)....sent to the controller (the brains of the repeater), then sent to the repeater transmitter and turned back into a much greater amplified radio signal on 147.03 Mhz (the output of the repeater)....sent to the duplexer....then thru the feed line to the antenna and out over the air.

A mobile or base station that happened to be within range and monitoring the 147.03 machine heard your transmission on 147.03 Mhz (the repeater output frequency).

Since radio waves travel at about the speed of light....at the split second that you first keyed your mic, the above events took place and the repeater was receiving your signal on one frequency and re-transmitting your signal on a different frequency at nearly the same time!

The mobile station that was listening on the output frequency of the repeater heard your callsign keyed his mic and came back to you starting the process all over again!

A simple way of demonstrating what is going on with a repeater is to set a scanner or a second receiver tuned to the input frequency of a LOCAL active repeater...in the case above...147.63 Mhz and you can monitor it's input (and the stations using it if they are local). Then with your transceiver, monitor the output on 147.63mhz! You should be able to hear both the input signals and the output of the repeater as all this takes place on the air.

How do you make a call on an Amateur Repeater?

To make a call on a repeater, first LISTEN AND LISTEN SOME MORE to make sure that the repeater is not already in use. When you are satisfied that the repeater is not in use, begin with the callsign of the station you are trying to contact followed by your callsign. If you don't establish contact with the

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station you are looking for, wait a minute or two and repeat your call.
If you are just announcing your presence on the repeater, identify your callsign. e.g. " This is KC8 - - - listening." If the repeater you are using is a busy repeater you may consider moving to a simplex frequency (transmit and receive on the same frequency), once you have made contact with the station you were calling. Repeaters are designed to enhance communications between stations that normally wouldn't be able to communicate because of terrain or power limitations. If you can maintain your conversation without using the repeater, going "simplex" (both stations on same frequency in a different part of the band) will leave the repeater free for other stations to use!

Repeater Etiquette
The first and most important rule before using a repeater is to LISTEN FIRST. Nothing is more annoying than someone that "keys up" or DOUBLES in the middle of another conversation without first checking to make sure the repeater is free. If the repeater is in use, wait for a pause in the conversation (watch your S meter and wait for it to drop indicating the repeater is "listening") and simply announce your callsign and wait for one of the other stations to acknowledge your call. Don't use CB lingo such as 10-4,.....don't say BREAKER! The word BREAKER or BRAKE, BRAKE on Ham radio is commonly used only in EMERGENCIES!
When you are using the repeater leave a couple of seconds between exchanges to allow other stations to join in or make a quick call. Most repeaters have a "Courtesy Tone" (a short...beep or series of beeps) that will help determine how long to pause. The courtesy tone serves two purposes. Repeaters have a time out function that will shut down the transmitter if the repeater is held on for a preset length of time (normally three or four minutes). This ensures that if someone's transmitter is stuck on, it won't hold the repeater's transmitter on indefinitely. Microphones can get lodged in the fold of car seats and keep a repeater busy until it times out. Of course if it is not noticed soon by the mobile operator.....the control operator of the repeater may have to shut down the repeater until the problem is corrected.
When a ham is talking and releases the push-to-talk switch on their radio, the controller in the repeater detects the loss of carrier and resets the time-out timer. When the timer is reset, the repeater sends out (continued next column) ➔
the courtesy tone. If you wait until you hear this beep (normally a couple of seconds), before you respond, you can be sure that you are pausing a suitable length of time. After you hear the beep, the repeater's transmitter will stay on for a few more seconds before turning off. This is referred to as the "tail". The length of the tail will vary from repeater to repeater but the average is about 2 or 3 seconds.
You don't HAVE to wait for the "tail to drop" before keying up again, but make sure that you hear the courtesy tone before going ahead. If you don't wait for the beep, the time-out timer may not reset. If you time-out the repeater, YOUR conversation AFTER the time-out will not be heard. The repeater time-out function does not care if you are still talking or not.

What is Doubling?
When two stations try to talk at the same time on the same repeater, the signals mix in the repeater's receiver and results in a buzzing sound or squeal. When you are involved in a roundtable discussion with several other stations it is always best to pass off the repeater to a specific person (station) rather than leave it up it the air.

Tired UHF Repeater

By "a reliable source"

Our UHF repeater appears to have reached the end of its' useful life. A decision needs to be made whether we want to replace it or forget UHF for now. Repeater activity has decreased dramatically over the last 2 to 3 years. Many repeaters are not used during a normal day. In just a few years each community the size of Lancaster will only have one working repeater if any, due mostly to inactivity of ham radio users and a decline in membership. Face it, activity is not what it used to be. Several UHF repeaters in Columbus have left the air over the last year and a half.
Bob W8RVD has spent some time and money to get the club up on Echo Link. If we decide to drop the UHF repeater what should we do?
The 146.70 repeater is mostly dead each and every day and we could permit Bob to switch over the Echo Link to the 146.70 repeater immediately. Because this repeater is not used except during activities of the club, the Echo Link can be programmed not to operate during these times thus increasing the overall general usage of the current system for club activities and Echo Link the rest of the time. Questions that need answers! Be prepared for a discussion at the next club meeting on February 2nd.