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LFCARC  
P.O. Box 3  
Lancaster, OH 43130

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**K8QIK**  
February 2006



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Stamp  
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# The Ragchewer

February 2006

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

On the Web: [www.k8qik.org](http://www.k8qik.org)

Send email to [K8QIK@columbus.rr.com](mailto:K8QIK@columbus.rr.com)

## **Club Meetings :**

1<sup>st</sup> 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:**

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

## **February Birthdays**

George D Lambert KB8USP  
Candice "Candy" S Wright KC8NQG  
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## **Thursday Night Radio 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.  
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## **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](mailto:K8QIK@columbus.rr.com)  
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## **Tubes For Sale**

If you need tubes for your boat anchor or TV  
contact Jeff Bell WD8JLI at 614-774-2973 or  
email at [jbell@imagearray.net](mailto:jbell@imagearray.net) he has a huge  
supply for most needs.  
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## **Net Manager Wanted**

We're still looking for a Net Manager to  
coordinate our efforts on the Monday night net.  
You would coordinate volunteers to handle each  
net. Will you please volunteer?  
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## **February VE Test:**

The next VE test will be Sunday February 19<sup>th</sup>  
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.

## **2005/2006 Officers**

### **President:**

Don Stephenson  
WD8PCF

### **Vice President:**

Scott Snoko  
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 2 February 2006

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

There were 21 members and 3 guests present.

Our visitors were Griffin Warren – KG4IDG, Miles – KD8CBY, and Jeff. Don circulated 2 membership apps for their second viewing and 2 apps for their first viewing.

Secretary Report: Robert Northrup - KC8PSW

Motion to accept by John – W8OF and second by John – W8AGS.

Treasurer's Report: Ed Campbell, Sr. - WD8PGO.

Motion to accept by Bob- KI8JM and second by Charlie – N8KZM

Trustee Report: John Hilliard - W8OF

John presented 3 items for the club to consider, read on:

1. John has been in touch with a Columbus club that has several repeaters they are donating to various clubs who want to upgrade or improve repeater operations. This equipment came from law enforcement groups in Franklin County. If you've been to recent LFCARC meetings, you've noticed good discussions about our repeaters and their health. John has been telling us that the UHF repeater is on its last legs and the VHF repeater could use updated equipment. Well, the club has an opportunity to obtain newer and more reliable repeaters that will only require minimal modifications for our use. John said we will need to replace crystals and do a general tune-up but they will be a big boost to the club. John also outlined a plan to switch operations to the hospital repeater while the mods are being worked. Motion was made by Mike – KC8LCY and second by Bob – KI8JM to proceed.
2. John has been telling the club that access to the current repeater sites may be in peril since 9/11 and the original agreement made with the county commissioners in 1992. John formulated a letter to the commissioners, et.al.; outlining his concerns plus a new plan to link the UHF repeater with the wide area county system that is growing in central and SE Ohio. There was great discussion, pro and (continued next column) →

con; to do this but the bottom line is that our repeaters could be used more than they are now and would prove to be a great source of connectivity in case of a disaster or other emergency. A fellow ham, Erb – W8OFZ has the equipment stored at his place and will give the club the necessary equipment to make it happen. Motion was made by Jack –AE8P and second by Ralph – W8BVH.

3. John also reported on past efforts to utilize Echo-Link. Ralph – W8BVH stated he had purchased a computer and required equipment plus software for an Echo-Link station, which was tried by the club on the UHF for a short time last year. Again, good discussion ensued about the pros and cons but the consensus was to have John – W8OF and Bob – W8BVH get together and set up the Echo-link station on the 147.030 (VHF) repeater for an indefinite time. If the use of Echo-Link proves to be a problem, then the club will re-evaluate its installation and go from there. Motion was made by Ralph – W8BVH and second by Gary – W8GTS to proceed.

The club voted in:

Griffin Warren – KG4IDG

MSC by John – W8AGS and John – W8OF

Dave Kennedy – WA8EUT

MSC by Ralph – W8BVH and Charlie – N8KZN

VP Report: Scott Snoke - WD8IXO

No Report

Activities Manager: Kay Hanna - KC8HJW

Kay wanted to know if the club was interested in holding the 2006 Christmas party at the Ponderosa Restaurant on east Main Street. Consensus was OK.

Station Report: John Hilliard - W8OF

No report.

VE Testing: Allan Sellers - KB8JLG

Testing will be this month on the 3<sup>rd</sup> Sunday at the clubhouse. Be present by 10:00AM to get registered.

Monday Night Net: Position is open

Feb 6 Gary – W8GTS

Feb 20 John – W8OF

Feb 13 John W8AGS

Feb 27 Fred – W8FZ

Ragchewer: Jack Travis - AE8P

Jack thanked everyone who has submitted materials for the Ragchewer thus far. Said he is OK for this (continued next page)

month but is struggling to find material for the Ragchewer for next 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](mailto:k8qik@columbus.rr.com).

Emergency Coordinator: Ed Campbell - WD8PGO  
No Report

Safety Report: Scott Snoke - WD8IXO  
No Report

The Flower Fund: Juanita Gaffney – KC8OYO  
Reported that Tom Moore – KB8USK was recovering from a heart attack and the club sent flowers and a get-well balloon to him. Get Well Soon!!!!

The 50-50 Club: Kay Hanna - KC8HJW  
The 50-50 was held with a pot of \$19.00. Winner was Dennis Frear, not present.

#### Old Business:

- Charlie -N8KZN reported the fire extinguishers have been repaired.
- 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.
- 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 most of the tubes were of TV type and not worth a lot. He said the whole lot is worth about \$300 and the tube tester between \$200-\$300, after cleaning and calibrating. He would go through the boxes of tubes and pull out any good tubes and sell them on EBay for us and give all the monies to the club. Motion was made by Charlie – N8KZN and second by John – W8OF to proceed.

#### New Business:

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.

(continued next column) →

John – W8OF noted the clubhouse is very dark at night and raised a concern about security lighting in the front and rear of the clubhouse. Discussion ensued and Charlie will procure long-life fluorescent bulbs for the front and rear and will also call the county maintenance group to have them replace the sputtering bulb that lights the parking lot.

Miles requested assistance from club members for a fellow classmate who is hosting a 5K run/walk on February 26, 2006 as a senior class project. He will need 4 communications helpers (4 members volunteered at the meeting) for the 2 PM run/walk and may have as much as 100 contestants.

Ed – WD8PGO reported the club received a QSL card from N8FK that was from a QSO on Radio Day 2003 and that he was requesting a QSL card from the club.

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

Meeting adjourned at 8:48pm.

Respectfully submitted,  
Robert Northrup - KC8PSW

### Get Published

Submission of articles are encouraged, 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](mailto:K8QIK@columbus.rr.com) or My telephone # is: (740) 687-1985 between 10:00 a.m. and 10:00 p.m.

### Upcoming Hamfests

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

March 19 is the Toledo Mobile Radio Association hamfest. You can get more information on line at <http://www.tmrahamradio.org>

(continued next page)

March 26 is the Lake County Amateur Radio Association hamfest. You can get more information on line at <http://www.lcara.org>

My thanks to Ron Kennedy WA8GFO for letting us know the truth about Microsoft Tech Support.



### 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 (continued next column) →

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.

### ARRL Membership

When you join the ARRL, or renew your membership through the club, we retain \$15 for each new membership OR lapsed membership (of two years or more), and we retain \$2 for each renewal. Please support our club, it doesn't cost any more.

### Good News, Bad News

By  
Jeff VanMeter

I have for some time now debated about writing this article, but I believe that the lessons to be learned are worth the potential embarrassment. Try not to peek to the end to find out why I have been so hesitant. Lets just let things unfold as they did this past summer.

We begin in August 2005. I decided to try some six meter sideband one evening. I fired up my IC-756 pro II and connected the coax to the Cushcraft three element 6 meter beam. Actually the antenna is the A627013s, Cushcraft's 6, 2, and 70 cm triband beam. (continued next page)

Anyway, I fired off a couple of CQ's on the calling frequency, but no return call. I pushed the tuner button and it would not make a match. The SWR remained high regardless of where I tuned the radio in the band. While I was making these tests my neighbor came to the door to let me know I was causing TVI on all local channels. Oh boy, here we go.

So being the good neighbor that I am, I stopped all testing. I've got an antenna problem. I continue my investigation by telescope. I focused it on the antenna looking for any loose wires or screws. But I was the only one with a screw loose. But you know, I put that antenna on a tilt-over tower for a reason. So down she comes. A closer look reveals no loose nuts or bolts. The connector is clean and well sealed. I took the coax off and connected a oil dummy load at the antenna end. The rig makes a nice 100 w load and the tuner seems to kick in and out perfectly. The coax is good. Next I connect a short jumper to the antenna and pull my car near enough to load it with my IC-706. The antenna loads perfectly. I used my jumper to connect the IC-756 to the car 6 meter antenna. It seems to load well also. The SWR seems reasonable and the tuner seems to work. So what in the world is going on here?

Finally after breaking part of the antenna by tightening one of the bolts a little too much (Cushcraft was very gracious and sent me the replacement part at no charge), I had a stroke of genius. Take the 706 out of the car and try it in the house. Things worked perfectly. The external tuner worked well and the SWR was reasonable at 1.3:1.

So now I have to rethink the entire problem. Could the 756 be the problem? This time instead of using the internal SWR meter and tuner I connected my trusty dusty Workman SWR meter to the 756. The meter reads the same 1.3:1. The radio is the problem.

The bad news. I took the radio to Mike Ervin at Communications Electronics in Hebron. This guy is both very bright and reasonably priced. He discovered that the radio was putting out a third harmonic that was only a couple of dB below the principle. The second harmonic is also quite high. Apparently the tuner was trying to tune to the third harmonic and the SWR meter was looking at this same 150 Mhz product. The problem turns out to be a bad diode allowing an oscillation in the finals to (continued next column) →

create the third harmonic and a transistor balance problem created the 100 Mhz harmonic. I'm not sure why the rig seemed to load the car antenna so well. I can only assume that the antenna was more forgiving in the 150 MHz band.

The good news. The Icom 756's finals make a great 2 meter amplifier. Obviously it would have been good to know this before I took the tower down. Hopefully someone will learn from my mistakes. On a sad note, the same tower had to be lowered again about a month later. This time it was a problem with my 12, 17 and 30 m yagi, but this is for another time. 73's de Jeff KA8HQL.

### Morse Code Class Starting

I am starting a Morse code class on Saturday, February 18, 2006 at 9:00 AM. Pre-registering is required, no walk-ins. We will meet at the clubhouse, 1611 Route 37 North - Lancaster, Ohio, for an introduction period of about two hours. The actual 2-hour class will begin on March 3, 2006. and will meet on a schedule of Saturday morning, Saturday morning, and Saturday afternoon to fit in my rotating work schedule.

I am limiting the class to sixteen people and charging a fee of \$20 and a 3-1/2", 1.4MB floppy disk (used is ok, just so I can format it). Its first come, first served. I need to know what Operating System you have (Windows 98 or Windows XP -or- other Microsoft product) if you have a computer for my freeware computer-disk practice media. Fourteen of the dollars will be refunded if the Element One test is passed within six months (proof is any VEC CSCE for EL-1). Every student will be expected to send code during every class, so you must practice at least 15 minutes every day. If you cannot allot this amount of time, it is unlikely you will succeed. The classes will run at least six weeks and probably eight so that everyone benefits in spite of the inevitable "slippage" that occurs about week Four.

I do not recommend a keyer with a paddle for use in this class. Every person needs to have a CPO (code practice oscillator), or share one; a notebook for writing practice sessions and a couple of pencils. The time prior to the class actually starting is to provide time to acquire or build a CPO. Universal Radio has a really nice assembled MFJ CPO for about \$30 or you (continued next page)

can get their Ameco key for about \$10 and Electronic Rainbow (RAINBOWKITS.COM) has a circuit kit " # COD-K1; No key or enclosure" for \$7. I can help with mounting the key and CPO and provide a "suitable" case. If anyone has CPO's that they want to donate or sell, I will retain the donations for future club training use and act as an intermediary for any sale. At the introductory meeting, I will collect money and orders for a group purchase from the suppliers so bring enough money if you want to participate.

My class is structured to teach how to operate CW (Morse code) on the air and incidentally the Morse code. I personally send very little code during the classes... the students do. It's as good as any method and has been very successful in the past. It is based on Chuck Burnham's (SK) KF8CR classes that I learned. I will say that any method will work if you can spend at least 15 minutes every day over a six week period. An hour a day is probably excessive unless it is broken into several shorter sessions.

#### Summary

Class \$20 (\$14 potentially refundable)

Floppy disk (used is OK)

Notebook and pencils

CPO \$30 for MFJ

or - \$20 for Key and kit

or - up to \$30 deposit for a "loaner" CPO if available -refunded when returned

Regards,

Allen Sellers, KB8JLG

[lsellers@greenapple.com](mailto:lsellers@greenapple.com)

(740) 654 – 8167

### The Amateur's Code

The Radio Amateur is CONSIDERATE...never knowingly operates in such a way as to lessen the pleasure of others.

LOYAL...offers loyalty, encouragement and support to other amateurs, local clubs, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

PROGRESSIVE...with knowledge abreast of science, a well-built and efficient station and operation above reproach.

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FRIENDLY...slow and patient operating when requested; friendly advice and counsel to the beginner; kindly assistance, cooperation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

BALANCED...radio is an avocation, never interfering with duties owed to family, job, school or community.

PATRIOTIC...station and skill always ready for service to country and community.

--The original Amateur's Code was written by Paul M. Segal, W9EEA, in 1928.

### Ohm's Law – $E=I * R$

By Vern Eubanks KØLVS

Besides inventing the battery, Alessandro Volta (1745-1827), noted that electrical properties possessed quantifiable properties. Georg Simon Ohm (1789-1854) improved the characterization of electricity by describing the relationships between electromotive force, electrical current, and resistance. Using the primitive measuring devices of the day, he demonstrated that as the resistance in a circuit increased, the current decreased by a proportionate amount (the terms amps, volts, and ohms did not exist). To achieve a change in resistance, he used wires of various diameters and lengths. Ohm's law was one of the first and probably the most important early quantitative descriptions of the physics of electricity. When Ohm first published his work in 1827, he was ridiculed and even terminated from his teaching job. The idea that someone, especially one from a modest family, could demonstrate electrical principles and postulate a new theory was ludicrous.

### Wireless Telecommunication

(Using the Power of the Sun)

by

Vern Eubanks KØLVS and Dan Rowlan KG6PQA

Dan and Vern have been researching the history of signaling with mirror-reflected sunlight as in the heliograph. We found so many reports of signaling over great distances, that it was difficult to identify the "best distance record". The most acceptable standing claim of "heliograph DX" is by units of the US Army Signal Corps, who in 1894 communicated over a single span of 183 miles between mountains in (continued next page)

Utah and Colorado using heliographs equipped with 8 inch mirrors.

While heliograph was used by civilian and military organizations around the world during the 1800's, the most extensive network we have identified is Department of Arizona Heliograph System. Landline telegraphy was not practical during these years, because the hostile Apaches would destroy the lines. Heliograph transmitters have a mirror to form the beam of sunlight, and a shutter or other mechanism to form the short and long Morse code flashes. If the sun is shining from behind the sending operator, a second mirror is placed strategically to reflect the sun onto the primary mirror. Under ordinary conditions, a flash can be seen about 10 miles per inch of mirror diameter; that is, a 5" mirror could work to about 50 miles!

The most proficient operators could copy Morse code by heliograph at a little more than 10 words per minute. A more complete description of the "works" of a heliograph, including plans to homebrew your own, can be found at KD7AOI's excellent web site <http://myweb.cableone.net/kd7aoi>

## Electricity - before there were Volts

By Vern Eubanks KØLVS

"BATTERY – n. Middle French, 1525, *batterie* (to beat)...An unlawful attack upon another person by beating or wounding." That is the ninth listed definition in the Webster's Unabridged Dictionary laying on my desk, but in 1748, it would have been the first and only listing in Ben Franklin's equivalent lexicon. Ben used the term *battery* to describe the simple capacitor he experimented with. His apparatus was just an array of charged glass plates, but it stored enough of an electrical wallop that he associated the term with a beating .

In those days there were no practical uses, and very little understanding of electricity. Since electricity was invisible and such a mystery, it was entertaining to demonstrate shocks and perform minor tricks with pith balls or flimsy plates in a leyden jar. The only source of electrical energy was electrostatic charges from nature such as thunderstorms, friction, and etc. A few electrically active fish, such as the torpedo fish (aka electric ray) also generated electricity, With our knowledge today, it is hard to fathom not only was their information limited in the 1700s, but much of what was "known" was just plain wrong. About 1790 Biologist Luigi Galvani noted that frog legs hanging on a brass hook twitched when he (continued next column) →

touched the brass hook with his steel scalpel. Galvani was convinced he was observing animal electricity, which he thought to be a fluid secreted by the brain, and that the flow of this fluid through the nerves activated the muscles. Alessandro Volta reproduced the experiment, but came to the correct conclusion that the frog tissue was only reacting to electricity, not generating it. Further research by Volta resulted in his invention of the Voltaic Pile, the first source of sustained electric current. The Voltaic Pile consisted of a stack of dissimilar metal discs, separated by a cloth soaked in acid. He also noted that increasing the number of stacked discs increased the intensity of the electrical shock. Volta achieved international acclaim for his inventions during his lifetime, but his name lives on even today with the basic electrical measurement "volt". Alessandro Volta's other physical and chemical discoveries included isolation of, and uses for, methane gas; the notion that electrical properties were quantifiable entities; his so-called "electric pistol" which ignited a container of explosive gas (locally or remotely connected by wire), foreshadowing the internal combustion engine and distance telegraphy; the perpetual



Alessandro Volta



The Volta Battery

electrophorus, a device for generating static electricity without continuous rubbing, as all other electrostatic devices of the age required; the Eudiometer , a device for measuring the "breathability" of air containing combustible gasses; and many other discoveries that provided new insights into physical and chemical science. He was awarded the equivalent of the modern Nobel Prize, and his likeness appears on millions of Italian bank notes and stamps, and as a statue in countless Italian piazzas.