
LFCARC
P.O. Box 3
Lancaster, OH 43130

K8QIK
March 2006



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The Ragchewer

March 2006

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

On the Web: www.k8qik.org

Send email to K8QIK@columbus.rr.com

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:

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

March Birthdays

John Hull	W8RRJ
Earl E. Ogg	AA8AT
Allen P. Sellers	KB8JLG
A1C Edward "Trey" L Campbell	KC8DPH
Jeffery P VanMeter	KA8HQL
Gary T Snider	W8GTS

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.

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

Tubes For Sale

If you need for tubes for your boat anchor or TV
contact Jeff Bell WD8JLI at 614-774-2973 or
email at jbell@imagearray.net he has a huge
supply for most needs.

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.

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

March 2, 2006 Meeting Minutes

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

There were 20 members present.

Membership applications for Miles – KD8CBY, and Jeff WD8JLI were circulated for their second viewing.

Secretary Report: Robert Northrup - KC8PSW
Motion to accept February Minutes by John – W8OF and second by Bob – KB8BVH.

Treasurer's Report: Ed Campbell, Sr. - WD8PGO.
Motion to accept by Ron – WA8GFO and second by Larry – KB8AHK

Trustee Report: John Hilliard - W8OF
John reported on the operating status of our VHF and UHF repeaters. The VHF repeater (147.030 MHz) has a flakey transmitter and control board. The receiver is holding on but is pretty old and he doesn't know how much longer it will remain so. As you may recall, last month, John said a Columbus club had several repeaters to give away, both VHF and UHF types. Well, after contacting them, the Columbus club wants to hold onto their VHF units but will still make available the UHF units. Several club members expressed interest in going up to Delaware County and getting one or more units. John said he has been doing some internet searching for newer VHF units and has located several that are out of state. Prices were quoted and ran \$900 for one in Arkansas to \$1700 for a used Motorola Micor VHF repeater. That includes the repeater, the "cans", shipping, etc., but we can't proceed without the county's OK where to place the equipment. This was tabled until we know the status. There was good discussion about interference on the "03" machine. Several members have heard a Lorain as well as a Lima station. John has heard a local AM broadcast station as well. Much of the problems come from the repeater run in "tone off" mode for those who do not have tone capability in their radios when QSOing in local nets, etc. Therefore, when the repeater is run this way, it is open for all sorts of interference. John said there would be a way to link the 146.700

machine at the hospital up with the 03 machine in case the 03 machine transmitter went totally bad. John also volunteered to install a spare tone board he has in a radio as needed. John has also uploaded a timer program to the repeater so that it runs in no tone mode during specific times to help those who lack tone capability in their radios.

The club voted in as new members by a show of hands:

Miles Harmon – KD8CPY and Jeff Bell – WD8JLI.

VP Report: Scott Snoke - WD8IXO
No Report

Activities Manager: Position open
Kay Hanna - KC8HJW left word she will be stepping down as activities manager.

Station Report: John Hilliard - W8OF
See Trustee report.

VE Testing: Allan Sellers - KB8JLG
Reported that John Lawson – W8AGS is our newest Extra class ham. Congratulations John. Our next VE testing session would normally be held on the third Sunday in April but that is Easter Sunday. Stay tuned for a new date.

Monday Night Net: Position is open
Mar 6 Charlie - N8KZN Mar 20 John - W8OF
Mar 13 John W8AGS Mar 27 Fred – W8FZ
April 3 John – W8OF

Ragchewer: Jack Travis - AE8P
Jack reported he has several new leads for information and material for the "chewer" but is still evaluating those leads as to content. 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
Ed reported there will be a "Weather Spotter" training session on Wednesday March 29 at 7:00PM in the Liberty Center on West Fair Ave in Lancaster. There, you will learn weather types and how/where to report it., etc.

Also, Ed stated there will be a Hazmat exercise to be conducted in Violet Township on June 10 at 8:00AM. This is still in the planning stages with more info to follow.

Safety Report: Scott Snoke - WD8IXO
No Report

The Flower Fund: Juanita Gaffney – KC8OYO
Reported \$17.00 was collected with \$8.50 going to John – W8AGS. John donated it back to the club.

The 50-50 Club: Kay Hanna - KC8HJW
The 50-50 was held with a pot of \$40.00. Winner was Bob – W8BLS who won \$20.00.

Charlie – N8KZN recommended the club suspend further 50-50s and this was OK with club members.

Old Business:
Charlie – N8KZN stated that Tom Moore – KB8USK is recovering well from open heart surgery this past Tuesday, February 28. Tom is due to come home on Saturday March 4.

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 April meeting or mail your key to our club treasurer Ed Campbell, 1243 Quarry Rd SE, Lancaster, Oh 43130.

Jack – AE8P questioned the need for the auto patch link in light of cell phone usage today. There was a good discussion about the cost (about \$28 per month) and the seemingly little or non-existent use. John said he uses it to program the repeaters but Ed WD8PGO will look into getting a reduced usage plan from SBC. Gary – W8GTS requested instructions on how to use the auto patch so John – W8OF will forward this info to Jack – AE8P who will include them in the next “chewer”.

Motion to close the meeting by Bob – KI8JM and second by Ron – WA8GFO.

Meeting adjourned at 8:20 PM.

Respectfully submitted,
Robert Northrup - KC8PSW

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 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>

Did You Know...In the 1940s the FCC assigned television’s Channel 1 to mobile services (two-way radios in taxicabs, for instance) but did not re-number the other channel assignments. That is why your TV set has channels 2 and up, but no channel 1.
73, Peggy Bell, K4EGB

How To Quickly Locate And Fix Power Line Interference

by Gene Preston K5GP

I worked for a power company for 28 years as an engineer and helped my company track down radio noise complaints. Now I'm retired and help hams here in Austin, Texas track down their power line noise. The big problem for both you and the power company (working together) is to find the exact pole the noise is coming from. Helping the power company find the source of the noise will greatly speed things up for you. You can start looking for the noise source with a loop antenna and an HF (or AM broadcast band) receiver to find a likely pole. If loose hardware is the problem, the noise will cut in and out with a little motion of the pole and/or wires. If motion causes the noise to vary, ask the power company to tighten up all the hardware on the pole. This type of noise has the characteristic of going away when it rains. If your noise is present when it rains, proceed as described below.

If your noise is present when it is raining, the faulty component is probably a bad fuse, bad lightning arrester, or leaky insulator, but probably not a bad transformer, since oil-filled transformers tend to self-destruct with any internal arcing. These components will not change in noise intensity when shaking a pole.

To pinpoint the exact pole for bad components requires the use of a hand-held directional antenna with a VHF or UHF receiver used in AM or SSB mode. An S meter is not needed. I use a six-element 440 MHz yagi with a Yaesu VX-5R HT in the AM mode. A 2M quad or three-element 2M yagi will also work fine. FM mode will not work. You should be able to hear the noise up to about 100 feet from the

source on 144 and 440 MHz. Once the pole is located, you are now ready to call the power company and schedule them to meet you at the site of that specific pole. Get them to schedule a specific date and time. Your knowledge of the specific source of noise helps in getting this meeting scheduled.

You should be present at the noise site with your receiver listening to the noise when the power company is working on the pole, so you can tell them if their work has fixed the problem.

My suggestion for the power company is to do the following: 1) use a hotstick to push on different wires to see if any wires are associated with the noise source, 2) tighten all the hardware, especially the hardware supporting the main conductors and/or crossarms since they usually have leakage currents that make noise on the galvanized bolts going through the wooden pole, 3) disconnect the lightning arrester(s), 4) jumper around the fuse disconnect(s) and then disconnect the fuse from the circuit, and finally 5) change out insulators (this is a more difficult task and is usually not the problem, unless there is a slack span with bell insulators). If slack span bell insulators are the problem, ask the power company to spray WD40 inside the bell insulators and then tighten up the slack, or change out the bell insulators with a single section fiberglass insulator.

Sweep the beam antenna back and forth across the noise source to help pinpoint the maximum signal location. Rotate the beam polarization to see how the source is polarized. The noise will be maximum when the antenna elements are parallel with the wires immediately connected to the bad component.

Automatic Telephone Switching System

By Vern Eubanks KØLVS

Almon Strowger (1839-1902) was an undertaker in Kansas City in the late 1880's. He discovered a competitor's girlfriend, a switchboard operator, was directing all undertaker calls to his competitor.

Strowger failed at having the operator discharged, so he set out to invent a "girl-less, cuss-less, out-of-order-less, and wait-less" telephone system. We call it a telephone exchange today.

Strowger constructed a stepping relay contraption out

of a collar box (a cylindrical box shaped like a small hat box), hat pins, and electromagnets. He filed a patent in 1889 and formed the "Strowger Automatic Telephone Exchange" company which provided exchange switching equipment worldwide for decades.

The Strowger system is now called step by-step, and retained the basic cylindrical shape, though with constant electrical and mechanical refinement, until computer driven systems took over in the 1960's.

Local Radio Nets

These are the local radio nets to the best of my knowledge so far. Any errors or additions to the net list should be sent to me. K8QIK@columbus.rr.com.

Daily

9:00am 147.030 Medicare Net (Lancaster)
7:15pm 147.240 Central Ohio Traffic Net (COTN) (Columbus)

Monday

8:00pm 145.170 Delaware County Net (Delaware)
8:30pm 147.240 Swap-N-Shop & Discussion Net(Columbus)
9:00pm 147.030 Lancaster Amateur News Net (Lancaster)

Tuesday

7:00pm 146.880 Newark Amateur Radio Association Net (Newark)
7:30pm 146.760 Central Ohio Severe Weather Net (March-Sept) (Columbus)
8:00pm 145.110 AMSAT Net (Columbus)
8:00pm 147.285 Madison County Amateur Radio Club (MARC) Net (London)
9:00pm 145.190 Buckeye Bells Net (YL net, OM's welcome) (Worthington)
9:00pm 147.450 Amateur Television Net (simplex)

Wednesday

8:00pm 147.060 Central Ohio ARES Discussion Net (Columbus)
8:00pm 145.110 Dayton ARA ARES Net (Columbus)
9:00pm 147.345 Hocking County Net (Logan)

Thursday

Friday

8:00pm 145.490 CARA CW Learning Net(Columbus)
10:00pm 147.240 Late Night Discussion Net (Columbus)

Saturday

midnight 145.110 Round Table Discussion Net (Columbus)

Sunday

7:00pm 145.490 Central Ohio (SSTV) Net (first Sunday of month(Columbus))
8:00pm 145.43 Central Oh Scanner (SWL Net (3rd Sunday of month) (Columbus))

N.D. to Test Balloons for Cellular Service

By James MacPherson

Why put up costly cell phone towers in thinly populated areas, when a few balloons would do? In North Dakota, former Gov. Ed Schafer is backing a plan to loft wireless network repeaters on balloons high above the state to fill gaps in cellular coverage.

"I know it sounds crazy," said Schafer, who now heads Extend America Inc., a wireless telecommunications company. "But it works in the lab."

Extend America and Chandler, Ariz.-based Space Data Corp. are developing the technology, which is believed to be the first to use disposable balloons to provide cellular coverage.

A trial balloon will be launched in the next few weeks to test the idea, said Schafer, who left office in 2000 after eight years as governor.

"To cover every square mile of North Dakota, it would take 1,100 cell towers," Schafer said. "We can do the whole state with three balloons."

If successful, the hydrogen-filled balloons could be drifting across the stratosphere above North Dakota this summer, providing cellular coverage at a tiny fraction of the cost of building cellular towers.

Jerry Knoblach, the CEO of Space Data, says that although the balloon technology, called SkySite, is

new to the cellular industry, "the platform is very well proven" for other purposes.

His company has launched thousands of the free-floating balloons in Texas, Oklahoma, Louisiana, Arkansas and New Mexico over the past year. The wireless data network they encompass tracks oil company vehicles and monitors the production of oil wells and pipelines, he said.

Knoblach is certain the balloons will work for cellular service in North Dakota even in cold or stormy weather. He said balloons were launched even during Hurricane Katrina.

Up to 20 miles above the earth, well above commercial airliner pathways, steady stratospheric winds would push the latex balloons across the state at about 30 mph. Each balloon would deliver voice and data service to an area hundreds of miles in diameter.

"Nine balloons would always be in the air, with some going up, some going down, and some in the middle," Schafer said.

The balloons swell from six feet in diameter to 30 feet after they gain altitude. Once a balloon leaves the state, its toaster size communications pod would jettison, deploy a parachute and fall to earth, where it would signal its position.

"We'd pay some guy a bounty, put in a new battery pack and send it off again," Knoblach said. Schafer said the repeater could be used indefinitely "unless it lands in a lake or gets run over by a truck."

After the electronic equipment is released, the balloons rise and expand with the drop in air pressure until they burst. Knoblach said the balloons cost about \$55 each.

Schafer said it costs about \$250,000 to build one cellular tower in North Dakota, and many remote areas don't have enough customers to pay for it.

"The nice thing is that we don't have to weld a bunch of steel together to build a tower," Schafer said. "We just let these babies go."

Weston Henderek, a senior wireless analyst with Current Analysis of Sterling, Va., said he was not aware of a similar system of using balloons to provide wireless relays.

"It's difficult to say whether it's a pie-in-the-sky idea or if it will actually work," he said. "It's one of those cutting-edge type of things that people are starting to look at. It will be interesting to see how the testing pans out."

At the height of the Internet boom a few years ago, several companies looked at providing broadband or cell phone service from manned or unmanned blimps and aircraft.

So far, none of those plans have fully materialized, but Globe-Tel Communications Corp. of Fort Lauderdale, Fla., has signed contracts to provide the nation of Colombia with unmanned communications blimps that would hover 10 to 13 miles up.

Upcoming Hamfests

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

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

April 2 is the Cuyahoga Falls Amateur Radio Club hamfest. You can get more information on line at <http://www.cfarc.org/hamfest2006.htm>

April 30 is the Athens County Amateur Radio Association hamfest. You can get more information on line at <http://www.ac-ara.org>

Looking forward: Dayton Hamvention starts May 19

Net Manager Wanted

We're still looking for a Net Manager to coordinate our efforts on the Monday night Net. You would get volunteers to handle each net. Would you please volunteer ?

Less is More

For all you folks that think they cannot afford to get on HF, I say "OH YES YOU CAN!". I admit that most HF transceivers can be very intimidating as far as price goes, taking into consideration that a low end rig will cost somewhere in the neighborhood of \$700, and another \$100 to \$200 for a power supply to power the thing. Then there are things to consider like antennas, SWR meters, antenna tuners etc that add to the price. Yes there is the used market, but you always stand the chance of getting equipment with problems, and a lot of times an obsolete rig with hard to find parts and service in formation. Well, the truth of the matter is, you can get on the air, on HF, for the same price or less than most 2 meter rigs and that includes HTs! How? you say, well forget all the hype about needing at least 500 watts, an ultra modern all the bells and whistles dsp do everything digital Yaecomwood rig and super all band 40 db signal shooter antenna that takes a construction crane to install.

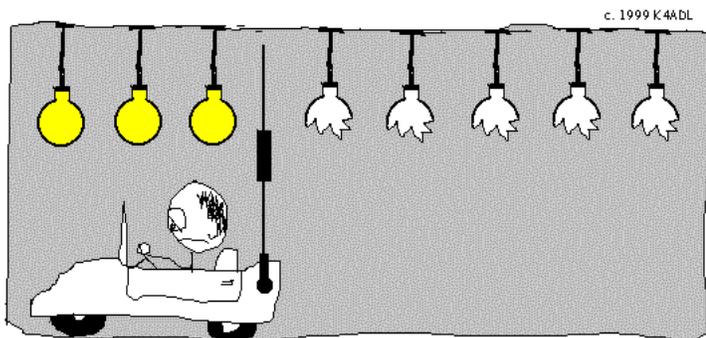
The answer is simple, you go QRP! Most QRP rigs are CW only rigs, but there are SSB QRP rigs too. First, QRP means "low power", for CW it is considered 5 watts or less and for SSB it is 10 watts or less. What can I do with low power you say ? A lot! I recently worked a station in Chino Valley, Arizona on 40 meters with "2 watts from my old Heathkit HW-8!". That's approximately 1650 miles

from where I live, and with 2 watts, that's 825 miles per watt! Pretty impressive when you consider that the same contact with 100 watts is only 16.5 miles per watt, so - Less is more in this case! OK, you can get a QRP single band CW rig for less than \$100, Ten Tec has a neat kit rig that does 3 watts out for \$95, and yes you have to build it but that's part of the fun. And there are many others out there in the market too.

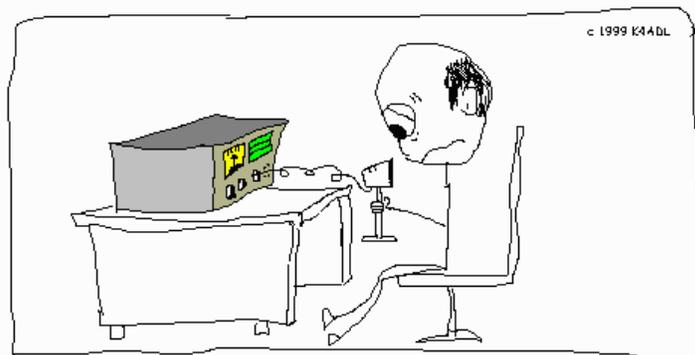
For the Antenna, you can put up a simple wire dipole that will cost you next to nothing if you scrounge around and build that yourself and for the power supply, you can use any 12 volt dc supply that does at least 1.5 amps and you probably already have that since most of you have a 2 meter rig with a power supply to run it. If you don't have that, then a small gel cel rechargeable battery will work just fine. The bottom line is, if you can afford a standard 2 meter mobile rig, then you can afford to get on HF with a QRP rig, and making contacts with QRP is much more satisfying than blasting your signal through the ether with a kazillion watts and a rig that would put a dent in the budget of Bill Gates! Oh, and by the way - "don't let CW scare you - it's easy!" After all, all you need is 5 words per minute - get in on the fun, you might just like it! See ya next time, and hope - fully on the air.

73, Richard S. McKee, KC8AON

Complements of www.qsl.net/k4ad/



FACED WITH HIGH MAINTENANCE COSTS, ARTHUR'S COMPANY REVOKED HIS INDOOR PARKING PRIVILEGES.



DESTINED TO LIVE OUT HIS LIFE AS A POORLY-DRAWN STICK FIGURE, CHARLES FOUND SOLICE IN CHATTING WITH PEOPLE WHO WOULD NEVER SEE HIM.

Congratulations to John Lawson W8AGS who recently upgraded to Amateur Extra!
