



BACKSCATTER

Newsletter of The Lakeland (FL) Amateur Radio Club



Editor: Joe Pirkle

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The LARC MEMBERSHIP MEETING is held on the first Monday of each month at The Fellowship Hall of the Westminster Presbyterian Church on S. Florida Ave between Riggins Street and Mosswood, Lakeland FL. at 7:00 PM. Talk in on 146.685 MHz, PL Tone 127.3 Hz.

THE PREZ SEZ

Pat Pirkle - WD4BEK



By the time you get this newsletter, the CROP Walk will have been completed on the 27th of February. If you did not participate in this event, you will have another chance in April when we support the March of Dimes WalkAmerica. See Patrick O'Neil's article on page 2.

The business meeting this month will be abbreviated and will follow a SKYWARN presentation for new certification and up-dating your present certification. The presentation will begin at 7:00 pm (1900 hours) March 7, 2005.

More fun in the offing!! March 19 is the date of a mini hamfest, yard sale, and bake sale. See the article in the Events column.

Please note that the Florida statute on scanners has been printed in this issue and is suitable for enclosing in a plastic baggie and placing in the glove compartment of your vehicle.

Sadly, we note the passing of club member Lamont "Red" Raulerson. KG4MOC.

73/88 de Pat

EVENTS

Patrick O'Neil - KI4CDY

LARC Yard Sale

Our club will sponsor a Yard Sale on March 19th, 2005 at the Scrounge Around Shop, 848 West Daughtery Road, in Lakeland. This location is one block east (turn right) of the intersection of Daughtery and North 98, which is the intersection that is north of the Super Wal-Mart location on North 98. Mary Meinke, the owner of the shop, has donated the use of the field which is next to her shop.

This event is listed as a Yard Sale, but we plan on making it a Mini Ham Fest and a Bake Sale in order to generate funds for our club. It would be great to have some members operating on the air to hopefully get the public interested in amateur radio.

Items donated to LARC would be greatly appreciated. Also, private sales are encouraged, but we do suggest a donation be made to LARC. Currently, we do not have any storage space for any items donated to the Club.

Items should be priced and ready to sell on tables by 9 AM. Sales from truck beds (tailgating) are also possible.

If members are interested, please sign up at the March Meeting and possibly give an idea of what items you will have to donate or sell. We need to know if there will be an abundant amount of ham gear

- Continued on page 4, 2nd column -.



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2005 Polk County WalkAmerica
 Patrick O'Neil, KI4CDY

LARC has been asked to give assistance to the 2005 March of Dimes WalkAmerica event. Our club has assisted this event many times in the past. This event has been scheduled for Saturday, April 30th, 2005 starting at 8 AM. We are requested to be stationed at four intersections along the route. Additionally we will need to provide drivers and communicators for a couple of sag wagon drivers plus communicators at or near some of the water stations.

Please signup for this event at the March 2005 meeting.

LARC Tower Update

Richard Sharp, KQ4KX

On January 18th the LARC repeater antenna was straightened by a tower crew from United Telecom of Lakeland while performing other work on the City's tower. The LARC repeater antenna mounts was slightly shifted during hurricane Jeanne. Inspection from the ground after the hurricane indicated the antenna was shifted a few degrees resulting in the antenna visibly being not plumb. This shift or tilt probably had some effect on the repeater's coverage but did not seem to be very noticeable – at least in the immediate Lakeland area. The tower crew reports the antenna and feedline are in good condition and the mounts are now tightly secured to the standoff mount.



MARCH

- N4DVX Robert Curry 3-Marh
- KF4TXO Rebecca Pirkle 6-Mar
- KI4BPR Michael Holland 7-Mar
- KD4EFM Evans Mitchell 17-Mar
- W9KFW Donald Wozniak 20-Mar
- N4TKB Jeff Baxter 23-Mar

If your birthday was omitted, please contact the editor at ad4ih@arrl.net to correct your database profile.

FLORIDA HAMFESTS

For more detailed information consult the ARRL Web Site at www.arrl.org or your current QST.

MO/DA/YR	EVENT	CITY
03/06/05	Charlotte County Tailgate-Fest	Port Charlotte
03/26/05	Gulf Coast ARC	New Port Richey
03/26/05	Cy Harris W4MAQ Mem. Free Flea	Plantation
04/16/05	TARCFest XIII Tampa ARC	Tampa
04/23/05 & 04/24/05	Poorman's Hamfest & Computer Show	Gainesville Alachua County Fairgrounds



VoIP

Evans Mitchell, KD4EFM

VoIP? What is that? What is it for?

VoIP, acronym for Voice over Internet Protocol

This seems to be the turning trend of not just new hams but even the old ones as well. Just about any traveling ham that has the typical traveling HF / VHF UHF / PC setup. Well, back home he already has a fellow ham who has this kind of communications setup either at home or at the tower site, and the traveler wishes to call home to check in.

In this article I am going to lightly touch on the concepts of VoIP. Basically, Voice over Internet Protocol is the taking of analog information, converting it to digital and inserting it into the data packet that is sent to another point over the internet.

Thus, the opposite reaction takes place on the other end, the digital information is broken down and then the voice is returned to an analog format that can be heard coming out of the computer speakers, or in this case, out over the air from a repeater. There have been several VoIP programs that have shown up in the amateur radio field dating back to 1994 with RepeaterLink and Vocaltec I-Phone software.

In IRLP, there are a million ways to explain IRLP and how it works, but this is best left up to you for the reading. The structure of IRLP was to inhibit the use of a computer MIC input and have it operate solely as a repeater to repeater connection.

The system operates under a stable operating system known as Linux, and even the newer version of IRLP is running under a system called FEDORA. Again, this operating systems work under a stable environment that seldom needs the big REBOOT to get it back in shape and running, unlike that other Windows-type operating system. More on that later.

IRLP uses a computer, soundcard, and a proprietary LINKING board that works with any radio or repeater.

Of course you will have to make up the cabling for it as well. The software is very customizable in a way to offer things such as time stamps, meeting announcements, and a person could even dial 411 and get local info about the area, the repeater, or even point of contact information using your own voice or computer generated recordings.

I will get into that later on down the road.

Items for your review:

IRLP: www.irlp.net

EchoLINK: www.echolink.org

ARRL: www.arrl.org Do a search for VOIP in the search box.

Next article I will bring forward what Echolink is all about followed by some simple operational information on how to access and use the IRLP and EchoLink systems over the air.

73,

KD4EFM, Evans F. Mitchell

E.C. Polk County

Caretaker of nodes 4128 and 4156



A LITTLE HISTORY

Anonymous Contributor

This article explains how we, as hams, arrived at ATV and SSTV modes of communication. I hope it is of interest to your club members.

On January 27, 1926, John Logie Baird, a Scottish inventor, gives the first public demonstration of a true television system in London, launching a revolution in communication and entertainment. Baird's invention, a pictorial-transmission machine he called a "televisor," used mechanical rotating disks to scan moving images into electronic impulses. This information was then transmitted by cable to a screen where it showed up as a low-resolution pattern of light and dark. Baird's first television program showed the heads of two ventriloquist dummies, which he operated in front of the camera apparatus out of view of the audience. Baird based his television on the work of Paul Nipkow, a German scientist who patented his ideas for a complete television system in 1884. Nipkow likewise used a rotating disk with holes in it to scan images, but he never achieved more than the crudest of shadowy pictures.

Various inventors worked to develop this idea, and Baird was the first to achieve easily discernible images. In 1928, Baird made the first overseas broadcast from London to New York over phone lines and in the same year demonstrated the first color television.

The first home television receiver was demonstrated in Schenectady, New York, in January 1928, and by May a station began occasional broadcasts to the handful

of homes in the area that were given the General Electric-built machines.

In 1932, the Radio Corporation of America demonstrated an all-electronic television using a cathode-ray tube in the receiver and the "iconoscope" camera tube developed by Russian-born physicist Vladimir Zworykin.

These two inventions greatly improved picture quality. The British Broadcasting Corporation (BBC) inaugurated regular high-definition public broadcasts in London in 1936. In delivering the broadcasts, Baird's television system was in competition with one promoted by Marconi Electric and Musical Industries. Marconi's television, which produced a 405-line picture--compared with Baird's 240 lines--, was clearly better, and in early 1937 the BBC adopted the Marconi system exclusively.

Regular television broadcasts began in the United States in 1939, and permanent color broadcasts began in 1954.

- EVENTS - Continued from page 1

so that we can advertise that fact. We do plan to advertise this sale in the local newspapers and on the nets.

Questions? Please contact Patrick O'Neil, KI4CDY, at (863) 206-6755 or e-mail at patrickboneil@juno.com

Is YOUR favorite article in this issue? It is easy to get published in the Backscatter. Submit your work now for inclusion in next month's newsletter.



VoIP Part 2 - EchoLink®

Submitted by Evans Mitchell, kd4efm

Article created from www.echolink.org and from the FEB 2003 issue of QST which is downloadable from

<http://www.arrl.org/qst/2003/02/VoIP.pdf>

ECHOLINK, a little ditty on about it. (*Sic*)

EchoLink® software allows licensed Amateur Radio stations to communicate with one another over the Internet, using voice-over-IP (VoIP) technology. The program allows worldwide connections to be made between stations or from computer to station, greatly enhancing Amateur Radio's communications capabilities. There are more than 150,000 registered users in 152 nations worldwide!

EchoLink was developed by Jonathan Taylor, K1RFD, in early 2002. In an astonishingly short period of time, EchoLink has become one of the dominant Amateur Radio VoIP systems with more than 30,000 users worldwide. The free EchoLink software for *Windows* can be downloaded at www.echolink.org.

When you start the EchoLink software, your computer taps the Internet to connect to an EchoLink server. Before you can make your first connection to the network, your call sign must be verified with the information in the FCC database. This can take minutes or hours, depending on the state of the system, but it helps reduce the chances of non-hams entering the EchoLink network.

Once you're validated (you only do this once), the rest is easy. The EchoLink server acts like a telephone switchboard in cyberspace. It maintains a directory of

everyone who is connected at any moment. After browsing the directory, you can request a connection between your computer and that of another amateur.

Here's where it becomes interesting. The ham on the EchoLink receiving end may be sitting in front of his computer with a headset and microphone. Or he may have his computer connected to a base radio at his station that is acting as an RF relay to a handheld transceiver or mobile rig. Or the destination station may be part of a repeater system. In any case, once the connection is established, anything you say will wind up being heard in the other amateur's headset, or transmitted over the air.

At your end of the EchoLink connection, you may be the one wearing the headset, or using a simplex connection to your base radio, or using a repeater. When you connect to an individual station, the custom is to call in the same fashion as you would during a traditional on-air conversation: "W1ABC from WB8IMY." Or if you are connecting to a distant repeater system: "WB8IMY, Wallingford, Connecticut." (You need to hesitate about 2 seconds before speaking to compensate for the delay.)

The EchoLink servers also support *conferencing* where several amateurs can converse in roundtable fashion. There are even EchoLink nets that meet within these conference areas on a scheduled basis.

But Is It Ham Radio?

The answer to that question depends on how you define "ham radio," and there is no shortage of opinions. Some radio purists reject amateur VoIP completely.



They feel that hams shouldn't incorporate the Internet into any aspect of Amateur Radio communication. It must be all RF or nothing. Others take a more expansive view and only draw the line at VoIP communication that lacks radios at both ends of the Internet path.

One thing that can probably be said with certainty is that amateur VoIP is here to stay. Amateurs young and old are embracing the technology, and the growth of affordable broadband Internet access is acting as a catalyst. To invoke the shopworn cliché, amateur VoIP isn't everyone's cup of tea. It is just one of the dozens of interests that comprise Amateur Radio. If amateur VoIP offends your radio sensibilities, avoid it. If not, a new operating experience awaits.

Thanks to Chris Kirby, G4FZN, Jonathan Taylor, K1RFD, James Milner, WB2REM, Paul Cassel, VE3SY, Dave Cameron, VE7LTD, Chip Margelli, K7JA, Brennan Price, N4QX and Chris Imlay, W3KD, for their assistance during the preparation of this article. Steve Ford, WB8IMY, is the Editor of QST and can be contacted at sford@arrl.org.

Evans F. Mitchell KD4EFM / AFA2TH

A NOTE FROM THE EDITOR

Access to this newsletter via mail and access to the Members Only page on the web expires on March 31, for those who have not paid their 2005 dues. If you have not renewed your club membership, please do it NOW!

2005 CROP Walk Completed

Sunday morning, March 27 began as a wet, rainy day and continued that way until just after completion of the Crop Walk. Although the weather was rainy, someone in the opening ceremony commented that we were blessed with having a day that the sun was not beating down on us...Hey, for some there is a rainbow behind every cloud.

A final tally of walkers showed there were about 150 hearty, dedicated people willing to face the elements for a good cause. Not counted in the number of walkers were the volunteers from the Lakeland Amateur Radio club: We had seven operators including Gillian Murray - KC5TEN, Patrick O'Neil - KI4CDY, Maureen McGraw - WA2YSH, Terry McGraw - WA2UDG, Pat Pirkle - WD4BEK, Joe Pirkle - AD4IH, and Don Wozniak - W9KFW.

Due to the weather conditions it was decided that the best way to support this event was for everyone to drive the route (around Lake Hollingsworth) or park at strategic points and move after the tail-end walkers passed you by. This system worked very well and we managed to "keep our powder dry", as some would say.

Remember, dear club members, we have the March of Dimes WalkAmerica coming up in April and will need about 15 volunteers to perform all the needed functions. Sign up with Patrick, KI4CDY beginning with the March 7 meeting.

-30-



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State of Florida Mobile Scanner Law

Source: FLORIDA STATUTES (1995) -

Title 46, CRIMES; Ch. 843, OBSTRUCTING JUSTICE; § 843.16

843.16 Unlawful to install radio equipment using assigned frequency of state or law enforcement officers; definitions; exceptions; penalties

(1) No person, firm, or corporation shall install in any motor vehicle or business establishment, except an emergency vehicle or crime watch vehicle as herein defined or a place established by municipal, county, state, or federal authority for governmental purposes, any frequency modulation radio receiving equipment so adjusted or tuned as to receive messages or signals on frequencies assigned by the Federal Communications Commission to police or law enforcement officers of any city or county of the state or to the state or any of its agencies. Provided, nothing herein shall be construed to affect any radio station licensed by the Federal communications Commission or to affect any recognized newspaper or news publication engaged in covering the news on a full-time basis or any alarm system contractor certified pursuant to Part II of Chapter 489, Operating a Central Monitoring System.

(2) As used in this section, the term:

(a) "Emergency vehicle" shall specifically mean:

1. Any motor vehicle used by any law enforcement officer or employee of any city, any county, the state, the Federal Bureau of Investigation, or the Armed Forces of the United States while on official business;
2. Any fire department vehicle of any city or county of the state or any state fire department vehicle;
3. Any motor vehicle designated as an emergency vehicle by the Department of Highway Safety and Motor Vehicles when said vehicle is to be assigned the use of frequencies assigned to the state;
4. Any motor vehicle designated as an emergency vehicle by the sheriff of any county in the state when said vehicle is to be assigned the use of frequencies assigned to the said county
5. Any motor vehicle designated as an emergency vehicle by the chief of police of any city in the state when said vehicle is to be assigned the use of frequencies assign to the said city.

(b) "Crime watch vehicle" means any motor vehicle used by any person participating in a citizen crime watch or neighborhood watch program when such program and use are approved in writing by the appropriate sheriff or chief of police where the vehicle will be used and the vehicle is assigned the use of frequencies assigned to the county or city. Such approval shall be renewed annually.

(3) This section shall not apply to any holder of a valid amateur radio operator or station license issued by the Federal Communications Commission or to any recognized newspaper or news publication engaged in covering the news on a full-time basis or any alarm system contractor certified pursuant to Part II of Chapter 489, Operating a Central Monitoring System.

(4) Any person, firm, or corporation violating any of the provisions of this section shall be deemed guilty of a misdemeanor of the second degree, punishable as provided in s. 775.082 or s. 775.083.



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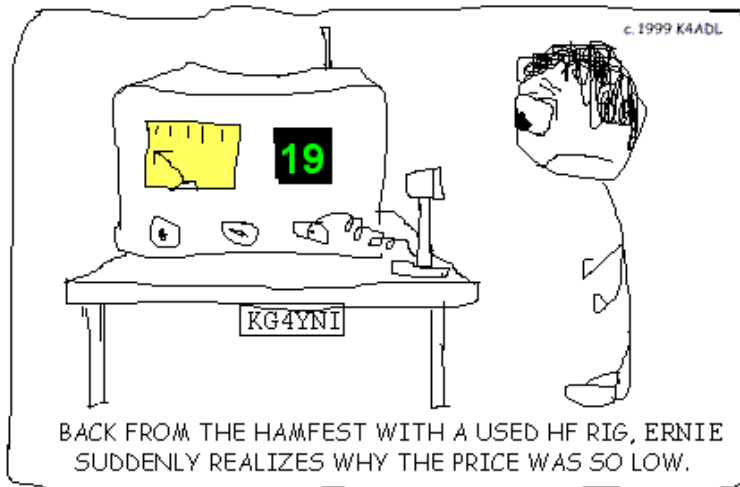
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