



BACKSCATTER

LAKELAND AMATEUR RADIO CLUB



Volume 28 Number 1

On the web: <http://lakelandarc.homestead.com/>

LAKELAND AMATEUR RADIO CLUB, P. O. BOX 792 EATON PARK, FLORIDA 33840

January 2004

THIS MONTH'S MEMBERSHIP MEETING
WILL BE HELD January 5, 2004 AT
The Fellowship Hall of the Westminster
Presbyterian Church on S. Florida Avenue
between Riggins Street and Mosswood,
Lakeland, FL at 7:00 PM
TALK IN ON 146.685-

FROM THE PRESIDENT

January

Here we go for another year in LARC. Hope all of you had a Merry Christmas. Here's to a happy and prosperous New Year in Ham Radio.

The club needs your help. We need some volunteers to step up and fill some committee chair vacancies for this year.

Pat Pirkle has been our events chairperson for the past three years. Pat has done an excellent job but, three years is a long time. We need someone to make all the arrangements for events. Contact people, arrange for a venue, i.e. park space, pavilions etc. Also to organize volunteers for our public service projects, i.e. the crop & March of Dimes Walks. Etc.

We also need a Publicity Chairman to get the word out to the public about our activities and Ham Radio in general. We need, as well, a program chairman to organize our technical and public interest programs at meetings.

This year we will need a Field Day Chairman to organize and supervise our Field Day efforts.

I hope all of you will search your hearts and take the opportunity to make a contribution to the club this year. Your time is worth lots more to the club than money.

The awards that we missed at the Christmas party will be presented at the January meeting.

Remember there will be no regular meeting in February. The church has dibs on the hall on our regular night. We are having a picnic together with some operating events which I am sure you will all enjoy.

73 de Carl, N3TJ

From the Secretary:

A reminder to all members: When renewing your dues, please be sure to update your member contact information. During the remainder of the year, members can update contact information whenever changes occur by emailing KF4TXO at kf4txo@arrrl.net, or sending a postcard to Lakeland ARC; Attn: Rebecca Pirkle; PO Box 792; Eaton Park, FL 33840. If we don't have current information, we can't let you know of the exciting events we have planned throughout the year!

Rebecca KF4TXO, Secretary

EVENTS

February

There are no scheduled events in January.

There will be a picnic in lieu of a general meeting in February. The date and venue selected are February 7, Lake Parker Park. Precise placement directives will be announced in January. The menu for the event will be pot-luck, with the Club providing hot dogs, hamburgers, and appropriate buns for each.

73, Pirkle, WD4BEK, Events Coordinator

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January Program

We will have James Thompson KB9PGB with us to give a presentation on the Predator Antenna. *Don't miss this one!*

Bob, N4DOA

Education Department Report

January

VE tests were administered to eight prospective hams on December 20. Seven of the people were from classes conducted by the LARC Education team. One student was a person that was mentored by Conrad, K1EC. Three of the LARC students were successful in their attempt and Conrad's efforts were not in vain.

The successful candidates were Larry Walker, Steven Pugh, Jim Ging (from the most recent LARC class), and Roy Thompkins, Conrad's friend. A "Well done!" to those who passed, and a "See you at the February test!" to those who were not successful this time.

Three of the successful candidates expressed a desire to continue on to General Class and plans are being made to mentor them.

Another Technician class is being formed for January 24 and 31, with testing on February 21, 2004. Remember, the course cost is only \$20.00, which gets the student a nice, new copy of ARRL's "Now You're Talking!", fifth edition. If you know of someone that would like to take the Technician course, send them my way via e-mail ad4ih@arrl.net or telephone (863) 688-7351 (home) or (863) 838-4441 (cell). Let's give someone a new view on life in the new year.

I am currently writing lesson plans for an Instructor's Course that will provide training for those members of the club that would like to join in the education process.

Until next time,

73 es 88 de Joe, AD4IH

For further information contact me at ad4ih@arrl.net **Joe Pirkle, AD4IH**

January Birthdays



Jan 3	Anne Falkenhof	K4BYF Xyl
Jan 21	Carl Johnson	N3TJ
Jan 24	Opal Morrell	KE4LOZ
Jan 31	Stacy Breton	KG4IRN

If your birthday is in this month and is not listed, contact the Editor at cjohns56@tampabay.rr.com to update the birthday roster.

Bacterial Batteries

Recent announcements in technology demonstrate how scientists are thinking "outside the box". Researchers at the University of Massachusetts have discovered a microbe that can metabolize sugar into electricity with an efficiency as high as 80% and that theoretically, a cup of metabolized sugar will produce enough energy to power a 60 watt light bulb for up to 17 hours. With sugar being an easily renewable low cost resource, one wonders how society will react to a potentially limitless supply of energy if this bacteria based bio cell makes it out of the laboratory.

I can just imagine the day when future LARC members will be fighting off swarms of ants during Field Day operations when all of their equipment is powered by metabolized sugar cells!

73 de Jack, K4BYF

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POLK COUNTY VE SESSIONS

ARRL VE Test schedule:

Third Saturday of the Month, 9:00 AM (ARRL-VEC) (January, March, May, July, September, November)

No walk-ins

Lake Wales Family YMCA

1001 Burns Ave, Lake Wales

Info: Richard Brannen, KA3JCA 863-676-4463

(home) or 863-676-9441 (work)

Email: <mailto:ka3jca@arrl.net>

Please register at least one week before test dates.

Polk VE Team Test Schedule:

Polk VE Team will conduct testing on the 3rd Saturday of every other month

at 9AM at the American Red Cross Building, 147 Ave "A" NW Winter Haven.

Feb 15, Apr 19, Jun 21, Aug 16, Oct 18, Dec 20,

Pre-Registration is required; no walk-ins

Contact Chet Carruth, <mailto:ab4xk@arrl.net> or

863 / 294 - 6243 (Home)

FLORIDA HAMFESTS

January

Arcadia – DeSoto ARC. Jan 31. 2004

Turner Civic Center, 2250 Roan St.; turn E on Gibson St and follow to end, road turns into Roan, Turner Center is on left. Free tailgating(with paid admission). VE Sessions, Hot breakfast served on site. Adm \$5.00, Tables \$10.00 Contact: Doug Christ, KN4YT, 1593 NE Livingston St. Arcadia, FL 34266 Phone (863) 491-0618 E-Mail kn4yt@arrl.net.

February

Miami Feb 7-8 (See QST Dec "Coming Conventions".

Wednesday Luncheons

Join us for lunch at the South Florida Ave. Golden Corral at 11:00 and at Lings on 98 North on the last Wednesday of the month.

Is That You K4BYF.??



Amateur Radio History

History Of The National Traffic System (NTS)

Since the dawn of radio the handling of messages accurately and speedily has been held in highest esteem. In the early days, the range of the average spark gap station varied from 5 miles to 10 miles. As better antenna systems, receivers, and higher power rotary spark gap transmitters evolved, distances of 400 miles and more could be achieved as early as 1914 by the better stations operating on 200 meters and down. Obviously, longer distance communications could not be achieved reliably without relays. The American Radio Relay League was founded by Hiram P. Maxim primarily as a long distance radio relay system. By the end of 1915, over 600 stations in almost every state and province had been appointed as Official Relay Stations whose operating standards were kept very high. The technical capability had been present for a long time before; but it is most definitely the organizational structure created by the ARRL that quickly increased the distance a message could travel from 50 Miles in early 1914 to reliable transcontinental messages by February

1917. The commercial communications systems at that time were fragile and often made unusable during disasters. Amateurs even in their dawn proved their worth to those communities which found themselves helpless without emergency communications.

Operation then was strictly by Morse code and suffered under the worst combinations of noise, poor receiver selectivity, frequency unstable transmitters and receivers, poor receiver sensitivity, etc. A message was handled with almost a feeling of sacred trust by dedicated and skilled operators. A message from coast to coast often had to be painstakingly relayed 8 times or more. To "botch" or delay such a message was not looked at very kindly by "the brethren". An operator was judged not so much for the amount of messages that he could handle nor the "sweetness" of his fist as much as how accurate and reliable of a relay he proved to be. It was a high priority to have an efficient continental system established not only for amateur radio communications but for public service and disaster communications. For accuracy and efficiency, a specific format was eventually determined to be the most effective. The standard NTS format in its present form is almost identical with that which also evolved in a parallel manner in the military and the commercial message services; which, by the way, were for the most part staffed by hams as well.

The present day National Traffic System (NTS) evolved out of this eighty old public service and disaster communication tradition. The NTS is still sponsored by the American Radio Relay League and features an orderly method of reliably and responsibly moving messages across the continent on a daily basis as a public service through a system of voice and CW nets and now also packet radio forwarding systems. Packet radio forwarding, although made possible only as recently as late 1984 appears as a natural choice to continue this fine tradition, as it is proving both accurate, fast, and more and more reliable.

NTS Structure

The NTS structure, in order to ensure reliability, is based on an hierarchy of local, section, regional, and area nets. The section and/or local net managers are appointed by the Section traffic Manager or the Section Manager. The Region and Area net managers are appointed by the Area Staffs. A message originated at the local or section level is taken to region net by an assigned liaison station appointed by the section net manager. Likewise, traffic is taken to the area net by a liaison station appointed by the region net manager. There are three Area nets in North America; Pacific, Central, and Eastern. Traffic is transferred from Area to Area by members of the Transcontinental Corps (TCC) appointed by the TCC Director. Traffic then flows down from Area net, to region nets and then to section and sometimes local nets where it is delivered. Thus traffic is both originated and delivered at the section and/or local net level. The rest of the NTS is simply a relay system. Thus packet radio networks form a natural media to help facilitate the accurate and speedy handling of such messages. Because messages for the most part are still delivered in NTS section and local nets, the existing NTS format is important to maintain for reasons of interface. There are literally hundreds of section and local nets meeting daily across the continent on both voice and CW that deliver third party traffic as a public service and as a training for disaster communications.

Packet BBS Message Forwarding

In 1984 Hank Oredson, WORLI, made available to the amateur community a free software program that ran on the inexpensive Xerox 820 computer. Soon afterwards Hank added an automatic forwarding system whereby one mailbox could automatically forward to any other mailbox at any time that would be convenient thus allowing for automatic relays of bulletins, personal messages, and NTS messages. This system became implemented on

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a widespread basis nationwide by mid 1985 through a system of VHF/HG Gateway mailbox systems. Messages were entered on the VHF (usually 2 meter) ports and then forwarded automatically to a HF Gateway BBS for long distance relay. Traffic for closer destinations were relayed on 2 meters and later through vhf and uhf "backbone" systems. These relay systems are constantly being improved and longer distances are now being covered through coast to coast satellite links, more efficient network nodes, higher speed backbones, and a better organized national HF packet system. This system is expected to continue to increase in efficiency and reliability over the next few years.

On a section level, STMs and Net Managers are appointing Packet Net managers to facilitate the interface between the section net and the linked packet BBSs system. Liaison stations are assigned to pick up the traffic at section BBSs nodes to be taken to the section net. Likewise traffic outgoing from the section net is often brought to a linked packet BBS for relay via packet. The packet system is especially valuable for missed schedules, overload traffic, high volume disaster welfare traffic, fair traffic, and relay to regions where favorable propagation factors do not coincide with available operation times. The eastern area staff has already appointed Region Net Packet Managers to help facilitate the traffic flow within and between their regions via packet BBSs.

AMATEUR RADIO IN POLK COUNTY

LAKELAND AMATEUR RADIO CLUB

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EATON PARK, FLORIDA 33840
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(k4lkl@arrl.net)

AMATEUR RADIO CLUBS:

LAKELAND AMATEUR RADIO CLUB Meets
1st Monday of each month at 7:00 pm at the
Westminster Presbyterian Church, 730 South
Florida Avenue, Lakeland, FL

LAKE WALES REPEATER ASSOCIATION...

Meets second Thursday of each month at 7:30
PM at the Eagle Ridge Mall just north of Lake
Wales on US 27

POLK HAM CLUB...

Meets the third Thursday of each month at 7:30
PM at the Bartow Air Base EMS Operations
Center

**QUARTER CENTURY WIRELESS
ASSOCIATION...**

Meets the third Saturday of each month at
11:30 AM at Ryan's on Lakeland Hills Blvd,
Lakeland, FL

TWO-METER REPEATERS...

Lakeland ARC	- 146.685- (tone 127.3)
Lake Wales Rptr Assoc	- 147.330+
Polk Experimental Group	- 146.655- (tone 127.3)
*N4KEG - Privately Owned	- 147.375+ (tone 127.3)

Note Frequency Change Below

**Polk County EOC	- 146.985- (tone 127.3)
Primary SKYWARN	- 146.985- (tone 127.3)

70-CM METER REPEATERS...

**Bartow Polk County EOC	- 444.950- (tone 127.3)
Dundee Privately Owned	- 444.625+
Lakeland -Privately Owned	- 443.900+ (tone 82.5)
*Lakeland -Privately Owned	- 444.775+ (tone 127.3)
* Located on same tower	
**Located on same tower	

WEEKLY NETS AND SCHEDULES

Monday 7:30 PM

Lake Wales Repeater Association -147.330+

Tuesday 7:30 PM

ARES/SKYWARN 146.985+ (PL 127.3)

Thursday 7:30 PM

Lakeland Amateur Radio Club - 146.685--

Thursday 12:30 PM

Quarter Century Wireless Association 14.235 MHz
"Snowbird Net"

Saturday 09:00 AM

Quarter Century Wireless Association - 7245 kHz.

Daily 6:30 PM

"Turtle Net" - (Local NTS Traffic Net)

147.375+ PL 127.3 (Alternate: 146.685- No PL)



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Board Of Directors

Executive Board

President	Carl Johnson	N3TJ
Vice President	Bob Herring	N4DOA
Secretary	Rebecca Pirkle	KF4TXO
Treasurer	Conrad Sheldon	K1EC

Board Members

Jack Falkenhof	K4BYF
Joe Pirkle	AD4IH
Patricia Prikle	WD4BEK
Richard Sharp	KQ4KX
Mike Holland	KI4BPR

Committee Chairpersons

Education	Joe Pirkle	AD4IH
Events	Vacant	WD4BEK
E-Mail Reflector	Fred Kalt	W2XN
	Joe Pirkle	AD4IH
Field Day	Vacant	
Hospitality	Martha Gochin	
Publicity	Vacant	
LARC Net	Becky Prikle	KF4TXO
Newsletter	Carl Johnson	N3TJ
	Conrad Sheldon	K1EC
Program	Vacant	N4DOA
Repeater Trustee	Richard Sharp	KQ4KX
Sympathy	Martha Gochin	
Webmaster	Joe Pirkle	AD4IH

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Editor: Contact Carl Johnson – N3TJ – cjohns56@tampabay.rr.com – (863) 667-2464

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