



# The Spirit of '76 and '88



Newsletter of the Lake Erie Amateur Radio Association

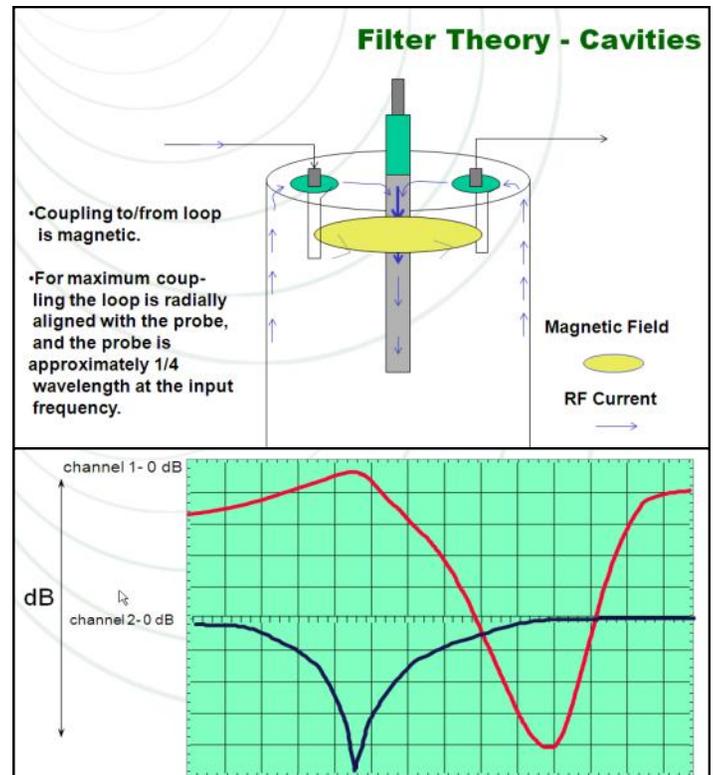
Editor: Ron Jakubowski, K2RJ

Publisher: Jeannie St. Marie, KC8MNW

## The ABC's of RF Filtering by Ron Jakubowski, K2RJ August 26, 2008 Dimitri's Dinner Meeting

We return to Dimitri's this month, after a 2-month hiatus for Field Day and our annual picnic. Our program this month features our own Editor and Trustee, Ron Jakubowski, K2RJ, who, during his day job is Chief Engineer—RF Systems for Bird Technologies-TX RX Systems in Solon. Ron will explain how the duplexers on our repeaters work, how more than one transmitter or receiver can share the same antenna and, if Murphy allows, demonstrate how intermodulation products (intermod) are formed—so bring your handhelds to help with the demo!

The dinner and meeting are back at our usual place, Dimitri's Restaurant, at 1830 Snow Rd., Parma, Ohio (in the Mid-Town Shopping Center, just west of Broadview Road). **Dinner will be served at 6:30 PM** and the **formal meeting will begin around 7:30**. Meetings are open to all interested persons. You may attend without eating, but reservations are required if you do wish to eat. Restaurant service is available only for those who purchase dinner. If you are attending the meeting only, kindly purchase beverages at the bar and bring them to your table. The dinner menu will consist of Steak, Broiled Boston Scrod, or Chicken Parmigiana for **\$16**. Also available is a vegetable and pasta dish for those who prefer a meatless dinner. The dinner includes a salad, main course, dessert, ice tea or coffee, and gratuity (please note, bar service and soft drinks are not included).



**RESERVATIONS ARE REQUIRED BY 11:00 A.M. OF THE MEETING DATE.**

Please call in your reservation and your menu choice to Marv Grossman, W8AZO, at 440-248-0031. You can also visit [www.leara.org](http://www.leara.org) and make your reservation through the club's website. -AR-

**OFFICERS**

<b>Eric Jessen</b> President	<b>N8AUC</b> 440-734-3146
<b>Jim Ozello</b> Vice President	<b>N8XDO</b> 216-475-7218
<b>Mike Cegelski</b> Vice President	<b>K8EHP</b> 216-252-6640
<b>Bob Winston</b> Secretary	<b>W2THU</b> 216-771-3314
<b>Dave Foran</b> Treasurer	<b>WB8APD</b> 440-942-0618
<b>Eric Jessen</b> License Trustee	<b>N8AUC</b> 440-734-3146

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<b>Gary Zimmet</b>	<b>WA8TJL</b>
<b>Marv Grossman</b>	<b>W8AZO</b> 440-248-0031
<b>Jacob Kinosh</b>	<b>KC8GHX</b> 440-989-8170
<b>Ron Jakubowski</b>	<b>K2RJ</b> 440-498-1512
<b>John Radney</b>	<b>KC8FOC</b> 216-751-7067
<b>Bryan Torok</b>	<b>N8OOF</b> 440-871-5456
<b>Alex Manuk</b>	<b>WD8JMM</b>
<b>Jeff Garvas</b>	<b>N8YNR</b> 216-552-4368

**TRUSTEES EMERITI**

<b>Al Amster</b>	<b>W8TTY</b>
<b>Fred Collins</b>	<b>W8ADW(SK)</b>
<b>Pat Shreve</b>	<b>W8GRG (SK)</b>
<b>Al Severson</b>	<b>AB8P (SK)</b>

**POINTS OF CONTACT**

<b>Don Raith "Sunshine"</b>	<b>N8DJG</b> 216-921-7546
<b>Mike Cegelski</b> Radio Officer	<b>K8EHP</b>
<b>Bryan Torok</b> Radio Officer	<b>N8OOF</b> 440-871-5456

The *Spirit of '76 & '88* is published monthly except in December. Contributions must be received by the 2<sup>nd</sup> Sunday of the month.

*Editor: Ron Jakubowski, K2RJ*

E-mail: [editor@leara.org](mailto:editor@leara.org)

# The Prez Says

by Eric Jessen, N8AUC



It's been a busy time around our house lately. For the remaining children it's entering back to school time. In fact I helped move one of my daughters back to college yesterday. But it's getting to the point that they're threatening me with creative photographs appearing in place of this column, so I'd better get something cranked out. Especially since a newsletter editor as good as ours is probably also a whiz with programs like Photoshop.

This could get bad, really quick. Oh yeah - I've seen some of the photos in the editor's blackmail stash. Trust me, they ain't pretty. But there are some really neat upcoming events to talk about, so this should be fairly easy (I hope).

First off, I regret missing all of you at the annual club picnic. From the photos I saw, and the reports I received, it looks like a good time was had by all who attended. We were on vacation that week, for the first real vacation that Robin and I have been able to take in about 3 years. This is because of the difficulty we have in being able to schedule vacation from two different jobs (hers and mine) at the same time. The vacation was great, and I even got to play some radio while we were out camping. The cool part was working Portugal on 20 meters, with a wire antenna thrown up into the trees.

The August meeting is the deadline for nominations in LEARA's upcoming annual trustee election. If you're interested in running, please contact a member of the Election Committee. This year's committee consists of: Bryan N8OOF, Jeff N8YNR, and Tom KA8BZB.

September is going to be a busy month.

If you enjoyed Field Day, you're going to love this new event. Our friends at the Portage County Amateur Radio Service, or PCARS for short, have come up with a cool new event. It's called Ohio State Parks on the Air, and it will be held on Saturday, September 6. This is the first edition of what hopefully will become an annual event. It is basically an HF contest, where the goal will be to work stations in as many Ohio State Parks as possible. You've all heard about the pileups of people trying to work rare DX stations. Perhaps you've even heard them on the air. Maybe you've even tried to work that rare

*(Continued on page 3)*

The Lake Erie Amateur Radio Assn., Inc., **LEARA**, is a not-for-profit [501(c)(3)] organization dedicated to Amateur Radio and Public Service. Club information packets and applications for membership are available from **Marv Grossman, W8AZO, 440-248-0031**, or may be downloaded from our web site at [www.leara.org](http://www.leara.org). Annual membership is \$25.00. **LEARA's address** is: LEARA, PO Box 22823, Beachwood, OH 44122-0823.

**LEARA** is an **ARRL**-affiliated club. When you join or renew the **ARRL**, **LEARA** benefits monetarily if you so through the club. Send **ARRL** Applications/renewals to Club Treasurer Dave Foran WB8APD, 5439 Nan Linn Dr. Willoughby, OH 44094-4365. Make the check payable to **LEARA**, not the **ARRL**.

**Membership Meetings** are held the last Tuesday of each month except December at Dimitri's Restaurant, 1830 Snow Rd., Parma, OH (in the Mid-Town Shopping Center, just west of Broadview Road). Dinner is served at 6:30 p.m. The meeting begins at 7:30 p.m. Meetings are open to all interested persons. You may attend without eating, but **reservations are required** if you do wish to eat. Call **Marv Grossman, W8AZO** at **440-248-0031** to leave a message.

**Trustees' Meetings** are on the second Saturday of odd numbered months at 9 a.m. at the Parma-Snow Branch of the Cuyahoga County Public Library, 2121 Snow Rd., Parma, OH (opposite the Mid-Town Shopping Center). Meetings are open to all current members of LEARA.

(Prez Says continued from page 2)

DX station. But have you ever been the one sought after, instead of just being the one doing the seeking? Well that's what this will be like. The event runs from noon until 8PM on Saturday, September 6th, and LEARA will be setup at the Upper Edgewater location of the Cleveland Lakefront State Park. This is kind of like Field Day, except without the overnight stay. And it should be a really good time as well. Check out their website at <http://parks.portcars.org> for more info.

In the upcoming public service events department, we have the annual Cleveland Clinic SportsHealth River Run on Sunday, September 7. This will be held in the Rocky River Reservation of the Cleveland Metroparks, and is a fun event. It's also a short event, since it's only a half marathon. As usual it includes the always crazy inline skate event, where about 30 raving lunatics attempt to do the 13.1mile course in about 30 minutes. For those of you bad at math, this means that they will be traveling in excess of 25MPH on roller blades, and that is really exciting to watch. This is followed by the runners and walkers, and we're usually out of there by about noon. If you're interested in helping with River Run, contact me, El Presidente.

After a nice cool down period, on Sunday, September 28, there is the 34th annual Cleveland Hamfest at the Cuyahoga County Fairgrounds in Berea, Ohio.

But before all that good stuff happens, we're going to need some dinner. So, make sure to join us at Dimitri's for the August LEARA meeting, which is on Tuesday night, August 26. Dinner is at 6:30PM, and the meeting itself starts at about 7:30PM. You could just come for the meeting, but where's the fun in that? If you're joining us for dinner, reservations are required. So give Marv W8AZO a call at 440-248-0031 and let him know how many are coming with you. I'll see you at Dimitri's! .73 de N8AUC (da prez) -AR-

### **Ohio State Parks On-the-Air: LEARA Special Event Station**

**September 6th**—Upper Edgewater Park,  
Noon—8 p.m.

### **Upcoming Public Service Events:**

**September 7th**—Cleveland Clinic Sports  
Health River Run (*Eric Jessen, N8AUC*)

## **Trustee Nominations Due**

*by Ron Jakubowski, K2RJ*

Our August meeting will be the final opportunity to accept nominations for the office of Trustee, the only club office directly elected by the membership. If you would like to serve the club in a special way, this is the way to do it! Just contact a member of the Elections Committee -Bryan, N8OOF; Jeff, N8NYR or Tom, KA8BZB. Due to bylaws changes made earlier this year, the number of nominees needs to exceed the number of openings (incumbents deciding not to run for re-election) before we have an election, and I believe that number is now 3. Remember, LEARA is *your* club. Run for election.! -AR-

## **Cleveland Triathlon a Success!**

*By Tom Kimball, KA8BZB*

In spite of the early hour for the start, 14 hams (and one xyl) showed up on Sunday August 3rd to support the 22nd annual Cleveland Triathlon. This year's event benefited the Unite Cerebral Palsy of Greater Cleveland, and featured almost 1,000 athletes competing in three distances.

Several of our regular Triathlon Hams were unable to make it this year due to work and family commitments. Fortunately, a couple of Triathlon first-timers stepped in to fill the void. The weather was virtually perfect for the event, with a high temperature in the 70's and partly cloudy skies. The Swim portion of the event took place in the inner harbor behind the Rock and Roll Hall of Fame, with a short jaunt north for the Olympic distance event. The Bike portion of the event involved 1 to 3 loops on the Memorial Shoreway from East Ninth Street out to Lake Road. Running was done on East Ninth, Lakeside, and West Third, with a detour out the Shoreway for the longer distances. Finish line was on the East Ninth Street Pier, with post-race festivities at Voinovich Park.

Net control activities were ably handled by Alex WD8JMM with the assistance of Kelly KC8UIX. The Transition area was overseen by Ed KE8ZZ. On the Bike course, Mike K8EHP, Ken KG8DN, Gary AF8A (with xyl Christine), John N8ABD, Jim N8XD0, and Marv W8AZO handled fixed locations while Dave WB8APD and Bob N8QXF covered the course motorcycle mobile. Joint duties between the Bike and Run Courses were shared by Bob W2THU and Jeannie KC8MNV.

The organizers, Pacific Sports LLC, the beneficiaries, United Cerebral Palsy, and I would all like to thank those Hams who came out, and LEARA for the use of the .88 repeater. -AR-

## K8DTS, W2THU Grant Tower, Beam to ND8GA

by Ken Kane, KG8DN

"The two aren't paired yet, but I'm already celebrating a marriage," was the response of Ken Kane, KG8DN, at Gilmour Academy, as he admired the new tower and beam still being assembled on the roof of the school's science building. "It's been a great engagement so far, all summer long."

Bob Winston, W2THU, donated his Mosley TA-33 Jr. beam antenna to Gilmour during the past winter, and Bob Leskovec, K8DTS, has been designer and "foreman" for the building of the new 27-foot tower. The tower and beam are nearly ready for final assembly and testing.

Ken has been moderator for the Gilmour Amateur Radio Club since the Collins S-line unit was installed in the physics lab back in 1992 (when he first joined LEARA). The school club has seen about a half-dozen new licensees since then.

"Countless area club members have supported us in various ways over the years, and several have dropped by recently to offer encouragement and to contribute to this project," said Ken.



*Bob Leskovec, K8DTS, applies his inventive craftsmanship while building the beam tower on the roof of the science building at Gilmour Academy*

As moderator of the radio club at Case (W8EDU), Bob Leskovec, K8DTS, has been able to draw on many years of experience with towers, beams, dipoles, and the attendant headaches involved in supporting a club for hams.

"I like to keep busy inventing and building," commented Bob, who has trekked up and down the 20-foot extension ladder to Gilmour's roof many times in the last couple of months. Bob is also spurring the upcoming reunion this September of the St. Joe High Radio Club, which tracked



*Bob Winston, W2THU, re-assembles his Mosley TA-33 Jr. at Gilmour, and re-lives his teen years as a new ham in New York*

the Russian Sputnik satellite when it was launched in October of 1957.

Bob Winston, W2THU, was only a teenager when his dad told him, "If you pass the test for General, we'll buy you a beam." Bob still remembers his first QSO with Puerto Rico while testing his new Mosley when the antenna was only a foot off the ground in his back yard!

"It's nice to see it get a new life," said Winston, as he carefully assembled the beam elements on Gilmour's rooftop. "This brings back some great amateur radio memories."

By prior arrangement, using club call, ND8GA, Gilmour's students questioned an astronaut aboard the International Space Station during a ten-minute direct QSO with the satellite as it passed over the school in January of 2004. Gilmour's club has also participated in the National School Club Roundup, now held twice each year in October and February, scoring as high as 5th place among the nation's high schools.

"But these kids have NEVER worked the world on a beam before," Ken concluded. "So things will certainly become more exciting now -- thanks to the generosity of our club benefactors!" -AR-

## LEARA "On The Air"

### Club Net Information

by David Noeth, KD8ACO

#### Wednesday Skywarn Practice Net

Skywarn practice nets returned in February 2008 on the 146.760 (- offset, 110.9 PL) repeater and will continue on Wednesday nights at 8:00 PM local time until fall. Everyone is welcome! The 146.880 (- offset, 110.9 PL) repeater is used, when needed, as a backup. Skywarn nets may be activated on one of these repeaters anytime threatening weather is approaching.

#### Thursday Club Net

The Lake Erie Amateur Radio Association's weekly club net is held every Thursday evening at 8:00 PM local time on the 146.760 (- offset, 110.9 PL) repeater. This is an open and informal net intended to provide the opportunity to test radio equipment, promote fellowship among local amateur radio operators, and develop radio traffic handling skills. You do not have to be a member of LEARA to participate.

Since the club net is a practice and informal net, LEARA would like to recognize those who take the time to check in and keep the net active and alive. During the past month, the weekly Thursday Club Net had a total of forty-one (41) check-ins. The following were reported by our net control stations to have participated:

Mike K8EHP, Jeff K8JTK, Steve K8SAS, John KA8GZA, Bob KA8WQL, Mark KC8FQV, Jeannie KC8MNW, Tony KC8SXX, Jeanne KC8TJH, David KD8ACO, Dave KD8AKA, Eddie KD8FTS, Don KD8ICR, Ken KG8DN, Don N8DJG, Tom N8UAZ, Bill N8UPZ, Bob W2THU, Larry W8LOO, Stuart W8STU, and Gary WA8TJL.

Net Control Stations: Jeanne KC8TJH, Ken KG8DN, Eric N8AUC, Bob W2THU, and David KD8ACO.

#### Upcoming NCS assignments are:

8/21/08	Eric	N8AUC
8/28/08	Ken	KG8DN
9/4/08	Bob	W2THU
9/11/08	David	KD8ACO
9/18/08	Terry	K8TJM
9/25/08	Jeanne	KC8TJH

#### Saturday SSTV Net

The Lake Erie Amateur Radio Association's weekly slow scan TV net is held every Saturday evening from October through May at 8:00 PM local time on the

## Letter From the Editor:

### The "Spirit" at 39,000 feet!

by Ron Jakubowski, K2RJ

In case you're wondering why this edition of the newsletter is slightly later than usual, your editor has been out of town on business-related trips for nearly the entire past four weeks. In fact, I am finishing this edition on a flight between Vancouver, BC and Houston, TX the morning/afternoon of Friday, August 15th on my way home from 2 weeks of troubleshooting VHF noise in Victoria, BC, its capital on Vancouver Island. The only thing I forgot to do while I still had an internet connection was update the Hamfest and License Exam schedules, and I may or may not have time to do that while changing planes in Houston. It never ceases to amaze me, however, how today's portable technology allows us to do just about any job from wherever we may find ourselves! -AR-

146.880 (- offset, 110.9 PL) repeater. Currently, the SSTV net is in summer vacation mode. The SSTV nets will start-up again in the fall during the month of October. Now is your chance to get your SSTV station set-up during the summer break.

#### Wanted! Net Control Stations

Interested in practicing your net control skills? Any member of the Lake Erie Amateur Radio Association can be a net control operator for one or all of the nets held on one of the club's repeaters. Never tried it you say? No problem. Now would be a really good time to start. No lines ... no waiting. It's as easy as getting in touch with me and we'll schedule you into the rotation. If you should have any questions or requests for assistance to get started, just contact me at one of our club meetings or by using any of my contact information in the membership directory. Hope to talk with you "on the air" soon! -AR-



*LEARA is an Affiliated Club of the ARRL. If LEARA members join or renew their ARRL membership through the club, the LEARA treasury gets to "pocket" a portion of your dues. Another neat way to support your local club!*

## Hamfest Listing

**7 Sep 2008 1st Ann. BCARA Swapfest  
Butler County ARA**

<http://w3udx.org>

Talk-In: 147.36+ (PL 131.8)

Contact: Dave Zibrat, W3VXT

Email: [dzibrat@zoominternet.net](mailto:dzibrat@zoominternet.net)

Unionville Volunteer Fire Hall  
102 Mahood Rd., Butler, PA

**28 Sep 2008 Cleveland Hamfest and  
Computer Show**

Hamfest Assn. of Cleveland, Inc.

<http://www.hac.org>

Talk-In: 146.73 (PL 110.9)

Contact: William Beckman, N8LXY  
c/o Hamfest Assn. of Cleveland, Inc.  
PO Box 81252

Cleveland, OH 44181-0252

Phone: 800-CLE-FEST

Email: on Web site click email  
Cuyahoga County Fairgrounds  
164 Eastland Road, Berea, OH

**26 Oct 2008 Hamfest and Auction  
Massillon Amateur Radio Club**

<http://www.marcradio.org>

Talk-In: 147.18/78 (PL 110.9)

Contact: Terry Russ, N8ATZ

3420 Briardale Circle NW

Massillon, OH 44646

Phone: 330-837-3091

Email: [truss@sssnet.com](mailto:truss@sssnet.com)

Massillon Boys and Girls Club  
730 Duncan Street SW

**25 Jan 2009 Tusco ARC**

<http://noard.com/tuscoarc.htm>

Talk-In: 146.730 (PL 71.9)

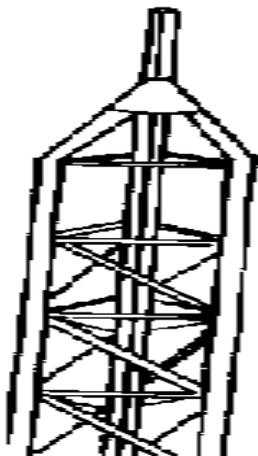
Contact: Kyle Quillen, KD8HDJ

Phone: 330-231-6269

Email: [hamfest@tuscoarc.org](mailto:hamfest@tuscoarc.org)

Strasburg, OH

Wallick Auction House



## Volunteer Exam Dates and Locations

(from the ARRL website)

### 20-Aug-2008

Sponsor: 20 OVER 9 ARC

Time: 6:30 PM (Walk-ins allowed)

Contact: ALLAN AVNET

(330) 549-3051

Email: [AB8AA@ARRL.NET](mailto:AB8AA@ARRL.NET)

VEC: ARRL/VEC

Location: EMA BUILDING

700 INDUSTRIAL RD

YOUNGSTOWN, OH 44509

### 30-Aug-2008

Sponsor: CANTON &

MASSILLON ARC'S

Time: 9:00 AM (Walk-ins allowed)

Contact: GARY L KLINE

(330) 837-2927

Email: [WC8W@SSSNET.COM](mailto:WC8W@SSSNET.COM)

VEC: ARRL/VEC

Location: MASSILLON SENIOR

CENTER

39 LINCOLN WAY WEST

1ST FLOOR

REAR ENTRANCE ONLY

MASSILLON, OH 44647

### 02-Sep-2008

Sponsor: CUYAHOGA FALLS

ARC

Time: 7:00 PM (Walk-ins allowed)

Contact: BRUCE M FERRY

(330) 929-2766

VEC: ARRL/VEC

Location: STOW-MUNROE

FALLS PUBLIC LIBRARY

3512 DARROW RD

[HTTP://WWW.AK8B.US/VE](http://www.ak8b.us/ve)

STOW, OH 44224

### 06-Sep-2008

Sponsor: SILVERCREEK ARA

Time: 9:30 AM (Walk-ins allowed)

Contact: BARRY J YOUMANS

(330) 925-1706

Email: [K18B@ARRL.NET](mailto:K18B@ARRL.NET)

VEC: ARRL/VEC

Location: RITTMAN PUBLIC

LIBRARY

49 W OHIO AVE

[WWW.W8WKY.ORG](http://www.w8wky.org)

RITTMAN, OH 44270

### 21-Sep-2008

Sponsor: LORAIN COUNTY ARA  
RED CROSS

Time: 1:00 PM (Walk-ins allowed)

Contact: CHARLES S HALL

(216) 433-3036

Email: [VE@W8HF.COM](mailto:VE@W8HF.COM)

VEC: ARRL/VEC

Location: AMERICAN RED CROSS

2929 W RIVER RD N

[WWW.W8HF.COM](http://www.w8hf.com)

ELYRIA, OH 44035

### 27-Sep-2008

Sponsor: MAHONING VALLEY  
ARA

Time: 10:30AM (Walk-ins allowed)

Contact: JAMES T VIELE

(330) 534-1394

Email: [W8JV@YAHOO.COM](mailto:W8JV@YAHOO.COM)

VEC: ARRL/VEC

Location: HUBBARD PUBLIC LI-  
BRARY

436 W LIBERTY ST

PRE-REGISTRATION URGED

[WWW.MVARA.ORG](http://www.mvara.org)

HUBBARD, OH 44425

### 28-Sep-2008

Sponsor: HAMFEST ASSOC OF  
CLEVELAND

Time: 2:00 PM (Walk-ins allowed)

Contact: JON G ANHOLD

Email: [N8USK@N8USK.COM](mailto:N8USK@N8USK.COM)

VEC: ARRL/VEC

Location: BEREA PUBLIC LI-

BRARY

7 BEREA COMMONS

[HTTP://HAC.ORG/VE](http://hac.org/ve)

BEREA, OH 44017

### 28-Sep-2008

Sponsor: WARREN ARA

Time: 6:30 PM (Walk-ins allowed)

Contact: WILLIAM H SHOWERS

(330) 872-1929

VEC: ARRL/VEC

Location: NEWTON FALLS COM-  
MUNITY CENTER

52 E QUARRY ST

REGISTRATION AT 6:30 PM!

NEWTON FALLS, OH 44444

## DX Engineering Looking For Electronic Technician

by Al Dolgosh, K8EUR

DX Engineering is looking for an Electronics Technician - which should be a fun job. We need someone who understands more than computers and digital logic - he /she must know and understand RF and analog applications (and hopefully loves ham radio). We have a need for such a person who will report to the Manufacturing Manager - just a good all-around tech looking for a full-time job with good benefits.

This is a real great company to work for, with people who care about their jobs and each other. The job is in the Tallmadge office. Here is a link to the ad on our web site: <http://www.dxengineering.com/default.asp> .....then navigate down the left frame to "Employment Opportunities".

This is a great opportunity for someone to live and work ham radio. -AR-

## FOR SALE

6meter Moxon antenna built from QST plans. Worked Nevada from the Field day site, with antenna at 30'. Great for portable use, or mounted at home. 150.00 invested Sell for \$60.00.

-and-

30' 3 section push up masts. Used for a few years at field day for the VHF/UHF station. \$79.00 new \$35.00 each or take them both for \$60.00 Moved and no place to store. Wife says they have to go.

Contact Steve KB8UTA 440-288-4141 -AR-

## Welcome New Member

- Carl Rimmer, W8KRF, Lakewood.

## Picnic Door Prize Winners

- N8OOF, Bryan Torok, LED Level
- KC8MNW, Jeanie St. Marie (and Wally the Standard Poodle), Crimp Terminals
- KD8AJX, Roy McClure, Crimper
- KE8ZZ, Ed Zorn, Coax Cable Cutter

## Where's the Fox?

by John Marx, KA8GZA

Here is info on making a 3 Element Beam Antenna for Fox Hunting. I enjoy Fox Hunting. The Woodchuck Ham Club had 3 Fox Hunts last Fall and are planning having another one soon. My Son (Fred, WE4FM) and I team up in the Fox Hunts.

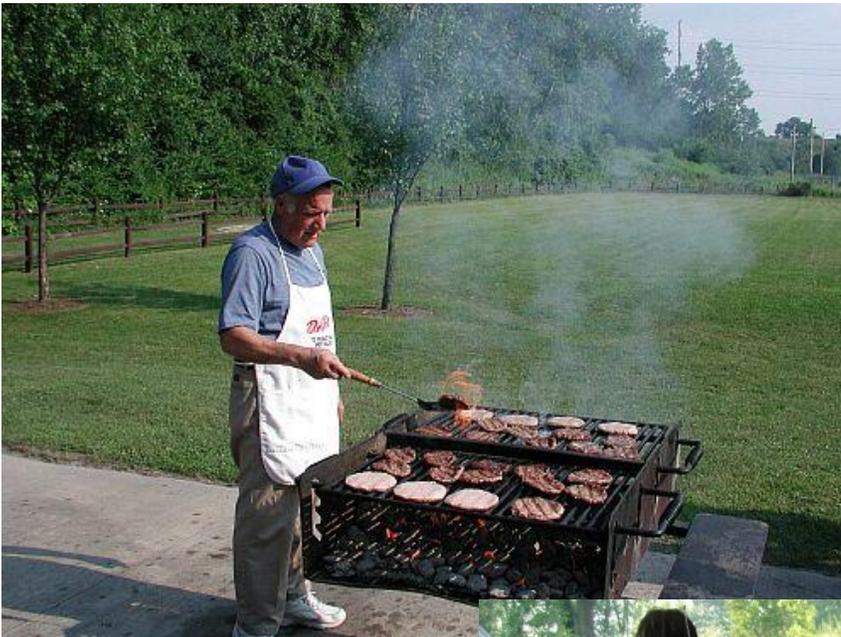
I made a 3-element beam out of plastic pipe, plastic tees and metal measuring tape. The ends of the elements are bent over and stick into the tees. That makes the antenna 1/2 the width & fits easily into my car trunk.

The radio we use is an Alinco HT 580 dual-band. -AR-



## ***NOTICE:***

***LEARA Elections are in October. All nominations for Trustee must be made by the August meeting.***



**LEARA Picnic Pictures**





For more picnic pictures, click:

[www.wr8abc.org](http://www.wr8abc.org)



## What's Wrong with the Sun? (Nothing)

via [science.nasa.gov](http://science.nasa.gov)

July 11, 2008: Stop the presses! The sun is behaving normally.

So says NASA solar physicist David Hathaway. "There have been some reports lately that Solar Minimum is lasting longer than it should. That's not true. The ongoing lull in sunspot number is well within historic norms for the solar cycle."

This report, that there's nothing to report, is newsworthy because of a growing buzz in lay and academic circles that something is wrong with the sun. Sun Goes Longer Than Normal Without Producing Sunspots declared one recent press release. A careful look at the data, however, suggests otherwise.

But first, a status report: "The sun is now near the low point of its 11-year activity cycle," says Hathaway. "We call this 'Solar Minimum.' It is the period of quiet that separates one Solar Max from another."

During Solar Max, huge sunspots and intense solar flares are a daily occurrence. Auroras appear in Florida. Radiation storms knock out satellites. Radio blackouts frustrate hams. The last such episode took place in the years around 2000-2001.

During Solar Minimum, the opposite occurs. Solar flares are almost nonexistent while whole weeks go by without a single, tiny sunspot to break the monotony of the blank sun. This is what we are experiencing now. Although minima are a normal aspect of the solar cycle, some observers are questioning the length of the ongoing minimum, now slogging through its 3rd year. "It does seem like it's taking a long time," allows Hathaway, "but I think we're just forgetting how long a solar minimum can last." In the early 20th century there were periods of quiet lasting almost twice as long as the current spell.

Most researchers weren't even born then.

Hathaway has studied international sunspot counts stretching all the way back to 1749 and he offers these statistics: "The average period of a solar cycle is 131 months with a standard deviation of 14 months. Decaying solar cycle 23 (the one we are experiencing now) has so far lasted 142 months--well within the first standard deviation and thus not at all abnormal. The last available 13-month smoothed sunspot number was 5.70. This is bigger than 12 of the last 23 solar minimum values."

In summary, "the current minimum is not abnormally low or long."

The longest minimum on record, the Maunder Minimum of 1645-1715, lasted an incredible 70 years. Sunspots were rarely observed and the solar cycle seemed to have broken down completely. The period of quiet coincided with the Little Ice Age, a series of extraordinarily bitter winters in Earth's northern hemisphere. Many researchers are convinced that low solar activity, acting in concert with increased volcanism and possible changes in ocean current patterns, played a role in that 17th century cooling. For reasons no one understands, the sunspot cycle revived itself in the early 18th century and has carried on since with the familiar 11-year period. Because solar physicists do not understand what triggered the Maunder Minimum or exactly how it influenced Earth's climate, they are always on the look-out for signs that it might be happening again.

The quiet of 2008 is not the second coming of the Maunder Minimum, believes Hathaway. "We have already observed a few sunspots from the next solar cycle," he says. (See Solar Cycle 24 Begins.) "This suggests the solar cycle is progressing normally."

What's next? Hathaway anticipates more spotless days, maybe even hundreds, followed by a return to Solar Max conditions in the years around 2012. -AR-

## LEARA — The Lake Erie Amateur Radio Association

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