

# Waveguide

## Lapeer County Amateur Radio Association

P.O. Box 12 | Hadley, MI 48440-0012 | <http://www.w8lap.com>

Club Founder: Hollis Hayes W8ACD, SK

## The President Says

Happy New Year!

Well 2016 is here and I hope you enjoyed the holidays with family and friends. The Christmas party was very nice and well attended. Thanks for all who came out.

Looking back over 2015 I've personally been able to expand my Ham Radio experience. I fixed up a little Ham Shack and have an HF rig running. I played around with Sound Card Packet Radio a bit\*. I started assembling a QRP-Labs beacon kit. I expanded my Mesh Network\*\* with some more routers, IP cameras and an app called Hamchat which allows for keyboard to keyboard comm. All in all it's been a good year. I really appreciate all the help, support and advice I received from my fellow LCARA club members. I couldn't have had such a good year without you.

If you haven't yet, I hope you'll take some time and look back over the past year. Did you try some new things? Is there some-



January 2016

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### W8LAP / r Repeaters

146.620 - 100 Hz

442.750 + 123 Hz

### Next Club Meeting

Tuesday, January 12

7:30pm

Lapeer County EOC  
2332 W. Genesee Street  
Lapeer, MI 48442

### ARES Net

Every Tuesday 8:00pm

146.620 - 100 Hz PL

### Thursday Night Net

Every Thursday 8:00pm

442.750 + 123 Hz PL



### ***The President Says, continued...***

thing you wanted to try but just didn't have the time or resources to pull off? As a club we have a lot of experience and knowledge. Maybe we can help you expand your Ham Radio experience in 2016. We'll try very hard to have time in every meeting to ask questions and share experiences, so if you have questions or there's something your itching to dive into, bring it up at the meeting. I'm hoping that when you look back over 2016 you'll be able to say- "man that was a good year. I had a lot of fun with my hobby."

And speaking of expanding our experience, please give Kevin your support for the ARES training that he's starting. The first meeting is January 20th at 7 PM and will be in the same location as our monthly meetings. I'll be there. And I hoping that if you can do it you'll participate in this important activity.

Our next club meeting is Tuesday Jan 12th at 7:30 PM. I'm looking forward to it. We will have a presentation about the Montserrat DXpedition. And I'd like to give a short presentation on my experience of buying a used antenna tuner from a classified ad on qth.com.

\* <http://www.soundcardpacket.org>

\*\* <http://www.broadband-hamnet.org>

## **View from the Veep Seats**

Happy New Year! The past few weeks have gone by in a blur, and now things are starting to ramp up for another fast-paced year.

Daniel, KE8CFI and I have been working on a trio of "copper cactus" J-Pole antennas fabricated from 3/4" Copper pipe. One for the base station, one for Noah, KE8CFH, and a "breakdown" version for Field Day and other such uses. We've taken a few "in progress" photos as we go along, so perhaps we can share our tale when the antenna is successfully up on the skyline!

See you soon, Gerret Peters, KD8YUK

### **Officers**

#### **President**

Gordon Miller  
KD8TXW

#### **Vice President**

Gerret Peters  
KD8YUK

#### **Treasurer**

Bill Miller  
KD8VP

#### **Secretary**

Lee Dziekan  
N8LJ

### **Committees and Appointees**

#### **Club Call Trustee W8LAP**

Mike Zedan, KN8Z

#### **Repeater Technical Team**

Lee Dziekan, N8LJ

Will Stanton, KB8YGA

#### **Meeting Refreshments**

Bill Miller, KD8VP

#### **Newsletter Editor**

Gerret Peters, KD8YUK

#### **Webmaster**

David Erskine, KD8GXW

#### **County EC**

Kevin Boxey, KB8TAR

810-728-1481

#### **County AEC—SkyWarn**

Tom Oliver, KD8EBY

#### **County AEC—Operation Care**

Tom Oliver, KD8EBY

## The Treasurer Says

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Greetings to one and all, and also a very Merry Christmas.

As I write this just before Christmas, I do not know if I am going to get any Amateur related gifts. But I speculate that I will not. I guess I will just have to buy my own radio presents. I have a pulley system to raise and lower my Dipole antenna. This time of year I lower it and fasten a five foot star and raise it back up. Normally that is not a problem and it is great to see that lit star representing the birth of our Savior, up there in the sky. It can be seen from quite far. Well that is all well and good except for the fact that while I was raising it back up one leg of my Dipole broke off. Rats, now I have to take my own advise and fix my antenna during inclement weather. They say those are the best antennas, when worked on during the worst of weather. I will do that as soon as the star can come down after Christmas. Enough about my problems.

Lets talk about the treasury. Of course the November report was not presented, as the meeting for December was held at the restaurant, and no business was conducted. So for November the treasury only took in five dollars less than we spent, all for normal expenditures. The treasury is in good shape though. Since the December meeting was a party there was no money taken in, and the expenditures will be minimal. So we will be in good shape.

A few months back it was voted at a meeting to cash in our certificate of deposit, and then try to find a better interest paying place to put that money. I did cash in that CD on the renewal date and placed the money into savings until a decision can be made by the board as to where to place the money. I have some information on a couple of places. Any suggestions for a high interest account would be considered by the board. If you would like to e-mail me at [kd8vp@juno.com](mailto:kd8vp@juno.com) with suggestions go right ahead.

OK that will do for now. See you at the next meeting.

Merry Christmas

Respectfully , William Miller KD8VP Treasurer

### Club Meetings

LCARA meetings are held the second Tuesday of each month at 7:30pm in the :

**Lapeer County Central Dispatch  
Center (911)**

**2332 West Genesee Street**

**Lapeer, MI 48446**

**All are welcome.**

### The Waveguide

The Waveguide is a monthly publication of the Lapeer County Amateur Radio Association. Publication is free to all interested members of the public.

Email your name, call sign (if licensed), city of residence and email address to [KD8YUK@KD8YUK.ORG](mailto:KD8YUK@KD8YUK.ORG)

Feedback positive and constructive can also be directed to [KD8YUK@KD8YUK.ORG](mailto:KD8YUK@KD8YUK.ORG)

## The Secretary Says

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May all us have a Merry Christmas and a Happy New Year. I hope Santa brought you a ham radio toy!

Here are some suggestions for New Years' resolutions:

In 2016 try to attend LCARA meetings the second Tuesday of the month at 7:30 pm.

We already have exciting presentations for January, February and April.

In 2016 try to become more "Radio Active".

Dust off that equipment and attempt some QSO's

In 2016 try to build a new accessory for your radio enjoyment.

In 2016 try for a license upgrade.

In 2016 participate in a radio event.

There are many opportunities such as Museum Ships, SOTA, IOTA, Field Day

In 2016, if you don't know what QSO's, SOTA, IOTA, other abbreviation stands for, bring your question up at the "Ask Elmer" portion of LCARA meeting.

In 2016, if your antenna blew down after a wind storm, put it back up.

If you need help, ask a club member.

In 2016 volunteer to bring back an activity the club no longer does.

This is our club. Together we enhance our enjoyment of ham radio.

73 and see you at the January meeting.

Lee

N8LJ

### Join Your Fellow Hams

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Don't forget to join your fellow hams on the LCARA nets

**Tuesday Night at 8pm**

On 146.620- with 100 Hz PL

**And**

**Thursday Night at 8pm**

On 442.750+ with 123 Hz PL



### Newsletter

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Items for the newsletter may be emailed to the editor at [kd8yuk@kd8yuk.org](mailto:kd8yuk@kd8yuk.org), or phoned / texted to 248-921-5398.

Items must be received by the 20th of each month to be considered for inclusion in the following month's edition.

## The Trustee Says

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Hello W8LAP Supporters:

There were no technical problems with the repeater this month, or any matters concerning use of the W8LAP club call.

I conducted a casual check on December 7 to verify that the winterizing activities, done last month, were in place and functioning. All were OK.

Bill, the club treasurer, relayed that DTE sent notice that our electric meter at the repeater will be replaced with a "smart" meter. The notification stated that the installation would take about 10 minutes, during which time our AC power will be disconnected. There should be no discontinuity in our repeater service, because we have several days reserve in our battery backup system.

If anyone notices that either repeater is not functioning, please notify me at the email below.

This month's Links:

### Smart Meters

As mentioned above, DTE will be replacing our electric meter at the repeater with a smart meter.

Smart Meters are being used by many utilities across the country. From the utilities' perspective, they make good business sense. An obvious cost saving in using smart technology is to eliminate or reduce the expense of paying meter readers.

Secondary benefits, according to industry sources (Note 1), include:

- Provide customers with feedback if their rates are time-based.
- Allow real-time notice to a utility if power is out, without customers having to call the utility.
- Increase customer privacy by not having on-site utility company visits.
- Environmental benefits.

Some customers, however, disagree with the above, and be-

### Note 1:

<http://www.cpuc.ca.gov/PUC/energy/Demand+Response/benefits.htm>

### ***The Trustee Says, continued...***

lieve that utilities have ulterior motives, or hidden agendas. These range from governmental plots to deprive citizens of their privacy, to questioning the accuracy of the devices. (Note 2)

One pet peeve of Michigan customers is that the electric companies will allow customers to opt-out of having a Smart Meter installed, but at a price (Note 3).

The bottom line in Smart Meters is that many companies have their fingers in the future of smart technology, and consumers have many concerns, from frivolous, and non-science based, to the actual accuracy of the stakeholders' number crunching (Note 4). Only time will tell who comes out on top.

See you at the next meeting,

Mike, KN8Z (kn8z at arrl.net)

Have some old **Waveguide Issues?** Gerret, KD8YUK is looking for issues prior to 2004 for a newsletter history project. Clean out your shack and help the club at the same time.

You can also loan a copy to Gerret, who will gently scan it and return the original to you in fine condition.

### **Trustee Links**

#### **Note 2:**

<https://duckduckgo.com/?q=+smart+utility+meters+customer+concerns&t=ffsb>

#### **Note 3:**

<http://www.annarbor.com/news/attorney-general-says-dte-energys-smart-meter-opt-out-fees-not-justified/>

#### **Note 4:**

<http://www.consumersdigest.com/special-reports/why-smart-meters-might-be-a-dumb-idea>

## Lapeer County EC/RO Report for January

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As most of you are aware I accepted the EC / RO position for Lapeer County this past October. As a result, we will begin monthly ARES training this coming January. Also, you can see the entire 2016 calendar listed below for all of the upcoming events.

At the first ARES meeting in January we will review what I am planning in terms of team structure, training requirements, future team goals, etc etc etc. At the end of the meeting I hope to convince you to officially signup for ARES membership and become a participating and productive member.

If you have any questions feel free to email me at [kevinboxey@hotmail.com](mailto:kevinboxey@hotmail.com) or you can ask me at the January LCARA meeting. Please don't let your individual skill or equipment levels prevent your ARES participation. We all have different capabilities in terms of skills and equipment. In the end this is what will make Lapeer ARES a stronger team.

I hope to see you soon.

Kevin Boxey  
KB8TAR  
EC / RO Lapeer County

## Lapeer County ARES Calendar 2016

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16 Jan 2016: District 3 meeting on 3.932 at 1:00 pm

20 Jan 2016: ARES training – introductions / team plan / ARES sign up

17 Feb 2016: ARES training – ARRL radiogram / good communication

16 Mar 2016: ARES training – digital modes of communication

20 Apr 2016: ARES training – digital modes of communication

18 May 2016: ARES training – final preparation for Lapeer County SET

27-30 May 2016 TBC: Memorial Day Operation CARE



### ARES Training Program

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#### First Meeting

Jan 20, 2016, 7:00 PM

Lapeer EOC

2332 W. Genesee Street

Lapeer, MI

(Same place as club meetings)

**Lapeer County EC/RO Report, Continued:**

29 May 2016: Big Fish Triathlon

TBC: Lapeer County SET

15 Jun 2016: ARES training

01-04 July 2016 TBC: July 4th Operation  
CARE

16 July 2016 TBC: Atwood 10k race - Flint

17 Aug 2016: ARES training

27 Aug 2016: CRIM Festival of Races - Flint

02-05 Sept 2016 TBC: Labor Day Operation  
CARE

21 Sept 2016: ARES training

TBC: Michigan Section ARPSC SET

19 Oct 2016: ARES training

TBC: District 3 SET

16 Nov 2016: ARES training

## Proposed LCARA Constitution Amendment

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The Executive Board proposes the following amendment to the LCARA Constitution, Article VIII, Duties of the President:

Add the following to the Duties of the President:

*The President shall be an "or" signatory on association accounts and make transactions in the event the Treasurer is unable to do so and only with the consent of the Executive Committee.*

### Reason for the Change

This has been the practice of the association and this amendment is meant to put that practice into writing.

### Process

All voting members of the association will receive a letter by hand or through the mail prior to February 1, 2016. We will have a vote on the proposal at the March 8, 2016 meeting.

Thank You,

Gordon Miller  
LCARA President

# WINTER FIELD DAY

JANUARY 30-31, 2016

*Contributed by Kevin Boxey, KB8TAR*

*Content Sourced from and copyright by: Winter Field Day Association (<http://www.winterfeldday.com>)*

**The purpose of the Winter Field Day event** is to practice emergency operating preparedness in the winter.

## **When**

12pm EST Saturday, January 30 to  
12pm EST Sunday, January 31, 2016

## **Bands**

All bands are permitted, except 12, 17, 30  
and 60 meters.

## **Modes**

Any mode.

## **Categories**

- a) **Number of operators:** 1, 2, Multi
- b) **Site:** Indoor, Outdoor, Home

See the Winter Field Day website at <http://www.winterfeldday.com> for complete details and logging instructions.

## **About the Winter Field Day Association**

Winter Field Day Association (WFDA) is a dedicated group of Amateur Radio Operators who believe that emergency communications in a winter environment is just as important as the preparations and practice that is done each summer but with some additional unique operational concerns.

We believe as do those entities of ARRL Organizations like ARES & RACES that

maintaining your operational skills should not be limited to fair weather scenarios. The addition of a Winter Field Day will enhance those already important skills of those that who generously volunteer their time and equipment to these organizations. This is why WFDA is open to all licensed amateur radio operators worldwide.

Disasters are unpredictable by nature and can strike when you least expect them. WFDA's goal is to help enhance your skills and ready you for all environmental conditions found in the US and Canada during the spring, summer, fall, and winter.

Preparedness is the key to a professional and timely response during any event and this is what local and state authorities are expecting when they reach out to the emergency service groups that offer their services.

If you are serious about emergency communications as we are; we welcome you to join us for our yearly event. We are sure that you will find this event a pleasant change and challenge to that of a normal summer time field day.

## Upcoming Presentations

### January 2016

Lee Dziekan, N8LJ presents on the DXpedition to Montserrat in October of 2015.

### February 2016

Dave Pridemore, WJ8R activated Brockway Mountain in Michigan's Upper Peninsula for Summits on the Air (SOTA).

### April 2016

Keith Baker, KB1SF is an AMSAT officer—AMSAT is the organization that creates/coordinates amateur radio satellites.

## JANUARY PRESENTATION

The club presentation for January will be **DXpedition to Gingerbread Hills, Montserrat (VP2MLJ)**

## Straight Key Night

*Contributed by Lee Dziekan, N8LJ*

January 1st is Straight Key Night. Actually it runs 24 hours for those who like to re-live the old Morse code straight key usage. I added a nostalgic transmitter and receiver to further enhance old time radio. I've been making straight key contacts on 80 and 40 meters. Quite a few hams out there reliving the old days!



Throughout 2016, Amateur Radio will be helping the National Park Service celebrate their 100th anniversary. Hams from across the country will activate NPS units, promote the National Park Service and showcase Amateur Radio to the public.



The complete list of information, rules, etc. can be found [here at the NPOTA site](http://www.arrl.org/npota-site), <http://www.arrl.org/npota-rules>. For your enjoyment we've reprinted some of the certificates available—so get out there!

### 7) Certificates

Three awards certificates will be available:

a) **Activator Award:** Awarded to any Amateur who makes a minimum of one accredited operation from an NPS Administrative Unit. The total number of qualified activations will be printed directly on the certificate.

b) **Chaser Award:** Awarded to any Amateur who confirms QSOs with a minimum of one accredited operation from an NPS Administrative Unit. The total number of NPS units worked will be printed directly on the certificate.




c) **National Parks Honor Roll:** Awarded to any Amateur who confirms QSOs with 75% of the 59 National Parks that have accredited operations in 2016. Note this does not mean 75% of all 59 National Parks. It is the responsibility of the Chaser to stay informed of operations that could affect their National Park's Honor Roll status throughout the year.

d) **"Five Star Activator":** Special recognition on Activator certificates for Activators who engage in exceptional outreach during activations throughout the event. Activators must perform a minimum of five items on the Five Star Activator list and provide documentation (photos, video, electronic media, etc) of those activities to ARRL HQ upon request.

### Five Star Activator actions include:

- § Media Publicity
- § Public Information Table
- § Youth/Scouting Involvement
- § Radio E-Message
- § Digital Modes
- § Satellite Contact
- § Green Power
- § Battery Power
- § Social Media
- § Intrepid Traveler
- § Stamp Collector
- § Share The Mike
- § Moonbounce

# JANUARY 2016

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				NEW YEAR'S EVE	1 	
3 Sunday Nets	4	5 ARES Net 8pm 146.620 -100 Hz	6	7 Thurs. Net 8pm 442.750 +123 Hz	8	9
10 Sunday Nets	11	12 Club Mtg 7:30 pm Lapeer EOC No Net Tonight	13	14 Thurs. Net 8pm 442.750 +123 Hz	15	16 District 3 Meeting 3.932 MHz 1pm
17 Sunday Nets	18  Martin Luther King Day	19 ARES Net 8pm 146.620 -100 Hz	20 	21 Thurs. Net 8pm 442.750 +123 Hz	22	23
24 Sunday Nets Hazel Park Hamfest	25	26 ARES Net 8pm 146.620 -100 Hz	27	28 Thurs. Net 8pm 442.750 +123 Hz	29	30
31 Sunday Nets						

## Sunday Nets

ARPSC - 5pm  
3.932 LSB




D3 Net - 6:30pm  
145.31+ 131.8 Hz PL

D3 Digital Training Net - 8pm  
3.583 USB

## January Events

1—New Year's Day  
16—District 3 Meeting  
18—Martin Luther King Day  
20—ARES Training  
24—Hazel Park Hamfest (see page 16 for details)

# FEBRUARY 2016

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2 <b>ARES Net</b> 8pm 146.620 -100 Hz	3	4 <b>Thurs. Net</b> 8pm 442.750 +123 Hz	5	6
7 <b>Sunday Nets</b>	8	9 <b>Club Mtg</b> 7:30 pm Lapeer EOC <b>No Net Tonight</b>	10	11 <b>Thurs. Net</b> 8pm 442.750 +123 Hz	12	13 <b>Traverse City Hamfest</b>
14 <b>Sunday Nets</b> 	15 	16 <b>ARES Net</b> 8pm 146.620 -100 Hz	17 	18 <b>Thurs. Net</b> 8pm 442.750 +123 Hz	19	20
21 <b>Sunday Nets</b> <b>Livonia Hamfest</b>	22	23 <b>ARES Net</b> 8pm 146.620 -100 Hz	24	25 <b>Thurs. Net</b> 8pm 442.750 +123 Hz	26	27
28 <b>Sunday Nets</b>	29					

## Sunday Nets

**ARPSC - 5pm**  
3.932 LSB

**D3 Net - 6:30pm**  
145.31+ 131.8 Hz PL

**D3 Digital Training Net - 8pm**  
3.583 USB

## February Events

13—Cherryland ARC 43rd Swap & Shop, Traverse City MI (See p.16 for details)  
14—Valentine's Day  
15—Presidents' Day  
17—ARES Training  
21—Livonia ARC 45th Swap & Shop, Livonia MI (See p.16 for details)

## Upcoming Testing Sessions—Is it time to get that upgrade?

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### **Port Huron MI 48060-4014**

**Sponsor:** Eastern Michigan ARC

**Date:** Jan 09 2016

**Time:** 10:00 AM (Walk-ins allowed)

**Contact:** Martin Smith

(810) 385-5584

**Email:** [pioneer-2@att.net](mailto:pioneer-2@att.net)

**VEC:** [ARRL/VEC](#)

**Location:** St Clair County Library

210 McMorran Blvd

2nd Floor Meeting Room

Port Huron MI 48060-4014

### **Flint MI 48507**

**Sponsor:** The KT8Q & W8ACW VE Teams

**Date:** Feb 20 2016

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

**Contact:** Jeffrey R. Pender

(810) 895-1408

**Email:** [jeff@w8acw.org](mailto:jeff@w8acw.org)

**VEC:** [ARRL/VEC](#)

**Location:** Baker College of Flint-Tech Center

1050 W Bristol Road

Room S-103, Pre-reg preferred

Flint MI 48507

### **Flint MI 48507**

**Sponsor:** The KT8Q & W8ACW VE Teams

**Date:** Jan 16 2016

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

**Contact:** Jeffrey R. Pender

(810) 895-1408

**Email:** [jeff@w8acw.org](mailto:jeff@w8acw.org)

**VEC:** [ARRL/VEC](#)

**Location:** Baker College of Flint-Tech Center

1050 W Bristol Road

Room S-103, Pre-reg preferred

Flint MI 48507

### **Port Huron MI 48060-4014**

**Sponsor:** Eastern Michigan ARC

**Date:** Mar 12 2016

**Time:** 10:00 AM (Walk-ins allowed)

**Contact:** Martin Smith

(810) 385-5584

**Email:** [pioneer-2@att.net](mailto:pioneer-2@att.net)

**VEC:** [ARRL/VEC](#)

**Location:** St Clair County Library

210 McMorran Blvd

2nd Floor Meeting Room

Port Huron MI 48060-4014

### **Port Huron MI 48060-4014**

**Sponsor:** Eastern Michigan ARC

**Date:** Feb 13 2016

**Time:** 10:00 AM (Walk-ins allowed)

**Contact:** Martin Smith

(810) 385-5584

**Email:** [pioneer-2@att.net](mailto:pioneer-2@att.net)

**VEC:** [ARRL/VEC](#)

**Location:** St Clair County Library

210 McMorran Blvd

2nd Floor Meeting Room

Port Huron MI 48060-4014

### **Flint MI 48507**

**Sponsor:** The KT8Q & W8ACW VE Teams

**Date:** Mar 19 2016

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

**Contact:** Jeffrey R. Pender

(810) 895-1408

**Email:** [jeff@w8acw.org](mailto:jeff@w8acw.org)

**VEC:** [ARRL/VEC](#)

**Location:** Baker College of Flint-Tech Center

1050 W Bristol Road

Room S-103, Pre-reg preferred

Flint MI 48507

## Upcoming Hamfests and Swaps

### Hazel Park W8HP 50th Annual Swap

**Start Date:** 01/24/2016

**End Date:** 01/24/2016

**Location:** UFCW Local 876

876 Horace Drive

Madison Heights, MI 48071

**Website:** <http://hparc.org/>

**Sponsor:** Hazel Park Amateur Radio Club

**Type:** ARRL Hamfest

**Talk-In:** 146.640 (PL 100)

**Public Contact:** Ken Krause , AD8M

30655 Westwood Drive Madison Heights, MI 48071

Phone: 248-928-4747

**Email:** [ken@mrkrause.com](mailto:ken@mrkrause.com)



### Livonia ARC's 45th Annual Swap & Shop

**Start Date:** 02/21/2016

**End Date:** 02/21/2016

**Location:** Livonia Civic Park Senior Center

15218 Farmington Road

Livonia, MI 48150

**Website:** <http://www.livoniaarc.com/index.php?page=swapshop>

**Sponsor:** Livonia Amateur Radio Club

**Type:** ARRL Hamfest

**Talk-In:** 145.35 (PL 100) or 146.52 Simplex

**Public Contact:** Doris Kelterborn , K8DXJ

PO Box 51532 Livonia, MI 48151

Phone: 734-941-5043

**Email:** [k8uns@arrl.net](mailto:k8uns@arrl.net)

### Cherryland ARC's 43rd Swap & Shop

**Start Date:** 02/13/2016

**End Date:** 02/13/2016

**Location:** Immaculate Conception Elementary School

218 Vine Street

Traverse City, MI 49684

**Website:** <http://cherrylandarc.com>

**Sponsor:** Cherryland Amateur Radio Club

**Type:** ARRL Hamfest

**Talk-In:** 146.86- (PL 114.8)

**Public Contact:** Joe Novak , W8TVT

201 South Spruce Street Traverse City, MI 49684

Phone: 231-947-8555

**Email:** [jjnovakw8tvt@gmail.com](mailto:jjnovakw8tvt@gmail.com)

Don't keep it a **SECRET!**  
Send your stories and  
photos to the editor for an  
upcoming issue of the  
Waveguide!

[KD8YUK@KD8YUK.ORG](mailto:KD8YUK@KD8YUK.ORG)

## Club **CLASSIFIEDS**—Stuff for Sale or Wanted

### D-104 Microphone

Not currently working.



I think all it needs is a plug on the end.

Price: \$25

Email: toddrzeszut  
AT hotmail.com

### Heathkit HW101 (and more)

All working condition.

Selling the rig, swr meter (HM-102), power supply (HP-238), external speaker and turner microphone.

All shown in the picture.

Price: \$200 obo for all

Email: toddrzeszut AT hotmail.com



## L.C.A.R.A. Membership Application

Please Print

CALL SIGN: \_\_\_\_\_ NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_ EMAIL: \_\_\_\_\_

LICENSE CLASS: \_\_\_\_\_ A.R.R.L. MEMBER? (YES) (NO)

SKYWARN NO: \_\_\_\_\_ RACES NO: \_\_\_\_\_

ARES MEMBER? (YES) (NO)

L.C.A.R.A membership is \$12.00 per year, renewable each year on October 1st. Family Membership \$20.00. Associate Membership \$4.00. If you wish an autodial number for the repeater there is an additional \$3.00 charge. (Financing available)

**Lapeer County Amateur**

**Radio Association**

**P.O. Box 12**

**Hadley, MI 48440-0012**

PLEASE  
PLACE  
STAMP  
HERE