

# Waveguide

**W8LAP / r**

146.620 - 100 Hz

442.750 + 123 Hz

**Lapeer County Amateur Radio Association**

Club Founder: Hollis Hayes W8ACD

Edition for October 2013

***\*\*The next regular club meeting will be held on  
Tuesday, October 8th, 2013 @ 6:00 pm\*\****

## **ARES Net**

*Every Tuesday at 8:00 pm on 146.620 - with 100 Hz PL*

*(except club meeting nights)*

## **Thursday Night Net**

*Every Thursday at 8:00 pm on 442.750 + with 123 Hz PL*

## **Meetings**

*LCARA meetings are held the second Tuesday of each month in the Lapeer County Central Dispatch Center (911), 2332 W. Genesee St., Lapeer, MI at 7:30 pm*

## **Newsletter**

*Items for the newsletter may be called in to the editor at 810-793-4986 or emailed to [kevinboxey@hotmail.com](mailto:kevinboxey@hotmail.com). The deadline for submission is the 20<sup>th</sup> of each month.*

**Website:** <http://www.w8lap.com>

**Facebook:** Lapeer County Amateur Radio Association

## *Editorial Section*

### **The President Says:**

Hello to all. Well we have a full agenda for the October meeting. First, believe it or not, it is time to discuss plans for the club's Christmas party. As you recall we occupied a meeting room at a local restaurant for dinner last year. From my perspective this worked out well with no cash outlay from the club and everyone being able to order exactly what they wanted. We will need someone to pick up the ball and find another venue this year. I have too much on my plate already and will need help with this.

Second, the possibility of linking our repeater with an existing linked system has been proposed as a topic for discussion. There is some preliminary information later in this Waveguide. Please bring your comments and ideas on this subject to the next meeting for discussion.

Third, we will have a presentation from KB8YGA on the use of Linksys routers as mesh nodes for communications and web access using amateur radio frequencies at 2.4 GHz. This should be very interesting.

OK, I am out of room on this page... I hope to see you at the meeting.  
Kevin KB8TAR

### **The Treasurer Says:**

Greetings to one and all. The leaves are turning, there is a chill in the air, and I still don't have my antenna work done. But the best antenna's are put up during inclement weather, aren't they?

Your treasury is in pretty good shape to start our new year. Our year starts in October. Our Operation Care donations were not the best we have ever had and there was no swap and shop this year, so our funds are down, but we are in good enough shape to make it through the new year with what we have in the checking account. I would truly hope that there will be more volunteers for Operation Care for next year and that someone would pick up the ball for the Swap and Shop and get it running for next year. Those two items are the bulk of our income for our operating expenses through out the year. Please if you have any input about either of these money makers, please contact me.

We did have some expense this past month. The yearly fee for the w8lap.com hosting came due and was paid, and the US Postal Box rent came due and was paid. Those two items come close to \$150.00, but they were offset some by dues being paid at the September meeting. We also had income from a donation that bought our lightening struck Packet TNC. (HA HA got ya Kevin)

All in all we're in good shape. So keep on plugging away.  
73 and have a great fall.

Respectfully submitted,  
William Miller KD8VP

### **The Secretary Says:**

The meeting was called to order at 7:30 with the Pledge of Allegiance to the Flag and introduction of members and guest. There were no hospital reports. The minutes were read by Flo, KC8CAB. The minutes were accepted by Jamie, KC8PMW and seconded by Lee, N8LJ. The treasurers report was given by Bill, KD8VP. The treasurers report was accepted by Dick, KC8VHA and seconded by Jamie, KC8PMW. The EC report was given by Tom, KD8EBY. Operation care was not too bad. It was average. On Monday, October 21st at 7 pm, there will be a winter Sky Warn at the Lapeer County Center Dispatch {911}. Seating is limited so please call 810-667-0402. The nomination of officers was as follows. President. Kevin, KB8TAR: Vice President Tom, KD8EBY: Treasurer: Bill, KD8VP: Secretary: Flo, KC8CAB: A motion was made to close the nominations by Dick, KC8VHA and seconded by Jamie, KC8PMW. A motion was made to vote as nominated by Jamie, KC8PMW and seconded by Lee, N8LJ. Kevin, KB8TAR bought the old equipment that was fried for one cent. Break was from 7:56 to 8:11. Lee, N8LJ gave a presentation on Museum Ships Weekend. It was the weekend of June 1 and 2, 2013. It was very interesting. 50/50 was won by Will, KB8YGA. A motion was made by Jamie, KC8PMW and seconded by Dick, KC8VHA to close the meeting at 8:37. Flo KC8CAB

## Editorial Section

### The Trustee Says:

Some of you may have noticed a few strange receptions on our two meter unit. These signals are down in the noise, and the user has identified as W8LAP (Yes, our club call), or N7RWK. RWK is owned by a western state station. Please refrain from responding in any way, should you hear this activity. It isn't detrimental to our normal operation, and we don't want things to accelerate into jamming or shouting matches.

Throughout the past month (September, 2013), the W8LAP repeater team faced, and overcome, many technical issues. Some were carryovers from the July lightning strike, while others involved implementing upgrades, mentioned in the last month's Trustee Report.

Before getting into the upgrade and repair details, here's a request for your input. KN8Z is merely the FCC's go-to person, with regard to use of the club call - not the repeater czar. The W8LAP repeater system belongs to the membership of the Lapeer Amateur Radio Association. With this in mind, the repeater team asks that any repeater users, who have ideas or suggestions on how (and when) the repeaters announce, what messages are sent, or anything else in these lines, forward them to [kn8z\(at\)arrl.net](mailto:kn8z(at)arrl.net). We have some from the weather and user net control ops that will be incorporated in the near future, but are open to any and all ideas.

In order to perform on-site controller programming, Lee (N8LJ) has configured a PC for permanent installation in the repeater shack. This will greatly improve our ability to maintain up to date backups of controller configurations.

Early in the month, the repeater team completed additional grounding within the repeater shack. The first was work on addressing the possibility of unequal energy distribution between the AC neutral and ground, during high stress events (lightning or surges). Second was RF bonding of all transceiver and control equipment.

In the process of working on the above, we noticed puzzling operation of the controller's 100 Hz PL tone decoder. Controller settings seemed the obvious culprit, but working through the issue revealed a number of hardware suspects. These include the PL decoder, an undocumented pull up resistor in the controller circuit, or circuitry associated with the PL process. The obvious suspect was the undocumented resistor, and we fully expected to find a half-patched installation. We were wrong on that count, but it was a tedious process to verify that the circuit worked as it should. During this testing and reinstallation of the decoder, Will (KB8YGA) and Lee (N8LJ) decided to swap an unused buffer IC for one in the PL control circuit. Sure enough, the PL operation commenced as it should. Evidently this IC passed testing, when the controller was repaired, but was weak and failed after a few weeks of our use.

Kevin (KB8TAR) provided a two meter radio, and KPC3 Terminal Node Controller to replace the packet setup that was destroyed by July's lightning event. Installation took place the week after the last club meeting. Additional lightning protection was added to the antenna connections of this unit.

Along with getting the packet station up, we decided to activate the 220 MHz link with the North Branch 440 MHz repeater (KG8ID). Linking from W8LAP to KG8ID occurs, but KG8ID is not linking back. I'm attempting to establish email communication with the KG8ID owner, but have received no response.

Will fabricated and installed a very nice mini version of a commercial Poly Phaser surge protector for the power input of the CAT1000 controller. Reasoning is that the CAT input circuits didn't do as well at handling the lightning surge as we would like. Now there is an additional green pilot light in the shack, along with a high level of controller protection.

In order to have more room in the shack to work without hindrance, we've installed shelving to store some of the Operation Care supplies. Additionally, we discarded obsolete hardware and items of questionable or unknown origin.





Site of the Month: [http://www.cwtd.org/CWTD\\_Design\\_Notebook.html](http://www.cwtd.org/CWTD_Design_Notebook.html)

This is part of the "Chat With The Designers" podcasts ( <http://www.cwtd.org/> ). Click on each numbered subject to link with reference material. For the geeks among us, this is nirvana.

73,

Mike, KN8Z

2013 2013 2013 2013 2013 2013 2013 2013 2013

October						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 ARES net 146.620+ 100 Hz PL at 8 pm	2	3 ARES net 442.750+ 123 Hz PL at 8 pm	4	5 LTZ test 1:00 pm
<b>USECA</b> -ARPSC @ 5:00 pm on 3.932 -D3 net 145.31+ 131.8 Hz PL at 6:30 pm	7	8  LCARA club meeting 7:30 pm at the EOC	9 	10 Packet net on 145.03 MHz at 8:00 pm	11	12
13 -ARPSC @ 5:00 pm on 3.932 -D3 net 145.31+ 131.8 Hz PL at 6:30 pm	14	15 ARES net 146.620+ 100 Hz PL at 8 pm	16	17 ARES net 442.750+ 123 Hz PL at 8 pm	18	19 -T&C -GCRC license test Baker College, rm S-103 9:30 am 
20 -ARPSC @ 5:00 pm on 3.932 -D3 net 145.31+ 131.8 Hz PL at 6:30 pm	21 	22 ARES net 146.620+ 100 Hz PL at 8 pm	23	24 ARES net 442.750+ 123 Hz PL at 8 pm	25	26
27 -ARPSC @ 5:00 pm on 3.932 -D3 net 145.31+ 131.8 Hz PL at 6:30 pm	28	29 ARES net 146.620+ 100 Hz PL at 8 pm	30	31 		
Phases of the moon: 4: ● 11: ◐ 18: ○ 26: ◐						
Holidays and Observances: 14: Columbus Day (Most regions), 31: Halloween						

November						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3 -ARPSC @ 5:00 pm on 3.932 -D3 net 145.31+ 131.8 Hz PL at 6:30 pm	4	5 ARES net 146.620+ 100 Hz PL at 8 pm	6	7 Packet net on 145.03 MHz at 8:00 pm	8	9
10 -ARPSC @ 5:00 pm on 3.932 -D3 net 145.31+ 131.8 Hz PL at 6:30 pm	11	12 LCARA club meeting 7:30 pm at the EOC	13	14 ARES net 442.750+ 123 Hz PL at 8 pm	15	16 -T&C -GCRC license test Baker College, rm S-103 9:30 am
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24 -ARPSC @ 5:00 pm on 3.932 -D3 net 145.31+ 131.8 Hz PL at 6:30 pm	25	26 ARES net 146.620+ 100 Hz PL at 8 pm	27	28 	29	30
Phases of the moon: 3: ● 10: ◐ 17: ○ 25: ◐						
Holidays and Observances: 11: Veterans Day, 28: Thanksgiving Day						

2013 2013 2013 2013 2013 2013 2013 2013 2013

## Event announcements

Birch Run Expo Center – October 19, 2013



*The Saginaw hams will be present at this event with their club trailer. Stop by and say "Hi" for Lapeer.*

### When and Where

#### Price:

FREE - Open to the Public

#### When:

Saturday, October 19, 2013

#### Time:

8:00AM - 4:00PM

#### Where:

Birch Run Convention Center  
11600 North Beyer Road  
Birch Run, MI 48415

- Food storage and preservation
- Hunting and survival gear
- Emergency services and disaster response
- Camping and outdoor equipment
- First aid and natural healing
- HAM radio and communication lines
- Solar panels and other solar power options
- Survival techniques and training
- Data backup and recovery
- Emergency preparedness planning
- Government programs
- Water filtration systems
- Generators and backup energy sources
- Alternative energy methods and educational programs
- Business consulting
- New green environmental programs & technologies
- Natural disaster preparedness: floods, wildfires, severe storms
- Raising self-reliant children (and grandchildren)
- ...and much more!



New & Used Sales  
Radio Test Bench  
VE Test Session  
( 9 AM - 10 AM)  
Great Door Prizes  
Food & Fun

Admission is \$5.00  
at the door

\$100.00 prize  
\$50.00 prize  
Hourly Drawings

Questions? Contact: Ray Anderson, K8RDT  
37237 Tamarack Drive, Sterling Heights, MI 48310-4163  
586-979-4456, usecaarc@hotmail.com

### The 28th Annual USECA Hamfest 2013 Sunday, October 6, 2013, 8 AM - 2 PM Vendors will be allowed in at 6:30 AM

United Food & Commercial Workers 876 Hall  
876 Horace Brown Drive, Madison Heights, MI 48071  
(2 blocks south of 13 Mile Road between Stephenson Highway and John R Road)  
GPS Coordinates: 42.516818, -83.113124

Talk-in on the USECA Repeater 147.180+ 100 Hz PL

*Our 2nd year at this  
larger location!!  
More Tables!*

QSL card checking for DXCC is available. Forms  
need to be filled out in advance. Does not include  
160m. All other bands and ARRL awards are  
covered.

#### Table Reservations with Ticket

Name \_\_\_\_\_ Call \_\_\_\_\_ email \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

No. Tables \_\_\_\_\_ No. tickets \_\_\_\_\_ Amount Enclosed \_\_\_\_\_

A ticket is required for admission. Tickets are \$5.00 each and will be available at the door.  
Tables are \$12.00 each + \$5.00 admission. Tables and tickets should be reserved in advance. If there are  
tables available the day of the Hamfest, the cost is \$15.00. **DO NOT ATTACH ANYTHING TO THE WALLS!!**

Please make checks payable to USECA and send with this form to:  
USECA Hamfest, PO Box 46331 Mt. Clemens, MI 48046

**VE Testing  
9 AM - 10 AM**

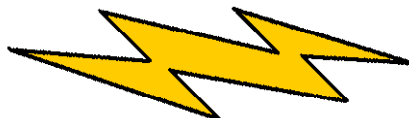
Please contact Alec, N8BX at n8bx@arrl.net to pre-register or  
for questions. Pre-registration is encouraged, but not required.  
Please bring \$14.00 cash along with photocopies of any existing  
license or CSEs. Originals will not be accepted.

Two forms of ID are required, with at least one being a photo  
ID. You will also need to provide your Social Security number or  
FRN.





## October meeting presentation



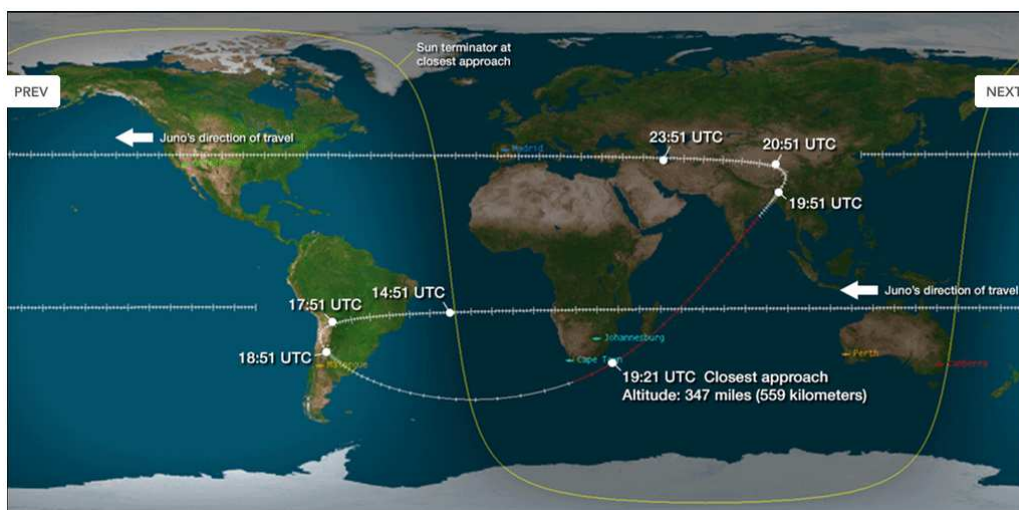
Come and learn about using  
Linksys routers as mesh nodes  
for communications on 2.4 GHz.



## SAY "HI" TO JUNO EVENT

NASA's Juno spacecraft will fly past Earth on October 9, 2013 to receive a gravity assist from our planet, putting it on course for Jupiter. To celebrate this event, the Juno mission is inviting amateur radio operators around the world to say "HI" to Juno in a coordinated Morse Code message. Juno's radio & plasma wave experiment, called Waves, should be able to detect the message if enough people participate. So please join in, and help spread the word to fellow amateur radio enthusiasts!

The activity will begin at 18:00 UTC on October 9, 2013 and continue until 20:40 UTC. This page will clearly indicate when you should key up or key down to transmit "HI" to Juno in Morse Code. The graphic below can also act as a guide. The "HI" message will be repeated every 10 minutes, beginning at 18:00, 18:10, 18:20, etc.



Visit here for more information - <http://www.jpl.nasa.gov/hijuno/>

## Topic for discussion

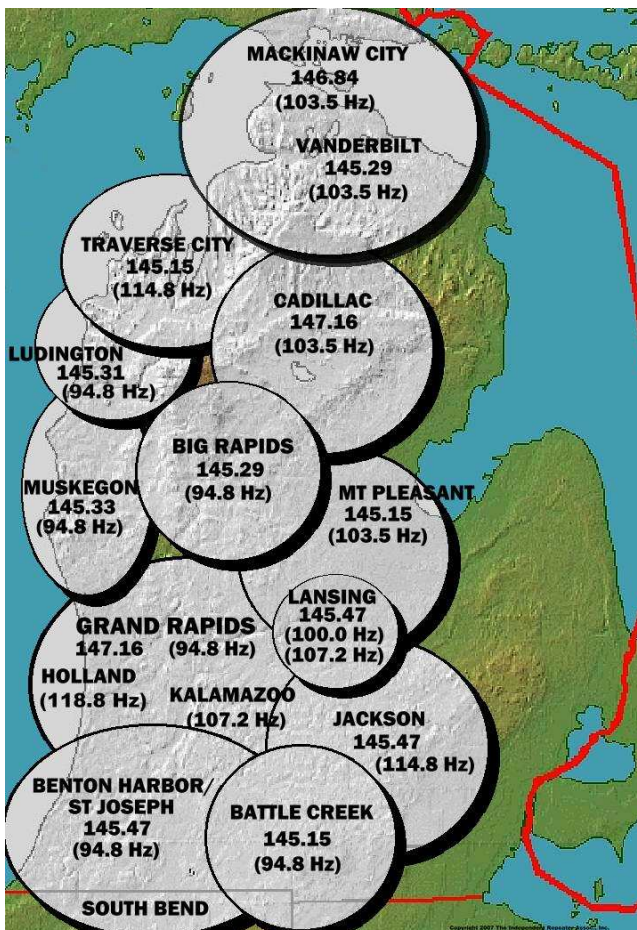
There has been a suggestion that we may want to consider linking our repeater. Some of the organization's details are listed below. Please take a look and we can discuss it at the October club meeting.

### ***The Independent Repeater Association***



Ten Interesting Facts about the IRA Link System (as of Sept. 2000)

1. The IRA link system covers most (~80%) of the Lower-Peninsula and about 20% of the Upper Peninsula of Michigan including parts of Ohio, Indiana, Illinois, Wisconsin and Canada 24-hours a day ([see map](#)).
2. It involves 14 sites (repeaters and auxiliary links).
3. There are 47 antennas (28 beams, 15 four-bay colinears and 4 verticals).
4. There are 27 transmitters.
5. There are 29 receivers.
6. There is over 2 miles of antenna cables (hardline) with over 225 connectors.
7. When you "kerchunk" the link system, a minimum of 16 transmitters gets keyed up so please ID if you kerchunk the system (you just might start a conversation).
8. All signals are routed through Grand Rapids before being broadcast out any repeater.
9. The farthest driving distance between linked repeaters is 260 miles (St. Joseph and Vanderbilt).
10. The IRA is not a club and there are no dues, but donations are accepted and are tax deductible (see [Who is the IRA](#)).



For more information visit  
<http://www.w8hvg.org/index.html>

## Swap schedule

Oct 5 - Straits Area Hamfest, Petoskey, MI  
Oct 5 - Vette City Hamfest, Bowling Green, KY - KY4Z - \*\*(QSL CHECKING) - KY4Z  
Oct 6 - USECA Hamfest, Madison Heights, MI  
Oct 19 - Muskegon Color Tour Hamfest, Muskegon, MI - K8JE, WB8R  
Oct 20 - Kalamazoo Hamfest, Kalamazoo, MI - K8JE, WB8R  
Dec 8 - LCARC Hamfest/Swap, Harrison Twp., MI



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

- **Tuesday** night at 8:00 pm on  
146.620 - with 100 Hz PL
- and*
- **Thursday** night at 8:00 pm on  
442.750 + with 123 Hz PL



## 2013 LAPEER COUNTY TORNADO SIREN TEST SCHEDULE

If your community does not have a siren, or you cannot hear a siren, you may want to purchase a NOAA All Hazard Weather Radio.



If your community has a tornado siren, below are the dates that it will be tested:

Saturday, April 6<sup>th</sup>  
Saturday, May 4<sup>th</sup>  
Saturday, June 1<sup>st</sup>  
Saturday, July 6<sup>th</sup>  
Saturday, August 3<sup>rd</sup>  
Saturday, September 7<sup>th</sup>  
Saturday, October 5<sup>th</sup>

**All Tests Will Be  
Held At 1:00PM**

\*\*\*  
Should inclement weather be present at the time of testing, the test will be cancelled. If you have any questions, please contact your local fire department.  
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# Stuff for Sale

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MFJ-945E tuner for sale, \$80. Contact Dick at [KC8VHA@GMAIL.COM](mailto:KC8VHA@GMAIL.COM)

ICOM IC-7000 SN#0502663 with Simplex power supply & SM 20 desk mic,  
original instruction manual. Owned since new. \$850.00  
W8NCJ 810-441-3601

*If you have something to sell please send an email with the details to  
[kevinboxey@hotmail.com](mailto:kevinboxey@hotmail.com) to be included in the Waveguide listing*

BRAND	MODEL	DESCRIPTION	PRICE
*****			

The following equipment is for sale. Contact AB8SY Charlie Rood at 989-846-8331 for any further information.

BRAND	MODEL	DESCRIPTION	PRICE
*****			

**ACCURATE:**  
257 Tube tester \$125

**ASTRON:**  
RS-7 7A Power supply \$30

**HEATHKIT:**  
SB-200 10-80M Amplifier \$550  
HM-102 1.8-30MHz swr-watt meter \$50  
TC-1 Dynamic tube tester \$125

**ICOM:**  
IC-740 HF 100W transceiver \$475  
SM-6 desk mic \$65

**KENWOOD:**  
TS-711 2M, 25W, All mode transceiver \$400  
TS-820S HF 100W transceiver \$400  
MC-50 desk mic \$60

**MFJ:**  
941E 300W 10-160M manual tuner \$115  
962D 1.5KW 10-160M manual tuner \$150  
986 3KW 10-160M manual tuner \$200  
989 3KW 10-160M manual tuner \$210

**SILTRONIX:**  
1011D 10M transceiver \$220

**UNIDEN:**  
Force UHF repeater \$100

BRAND	MODEL	DESCRIPTION	PRICE
*****			

**YAESU:**  
101E HF 100W transceiver \$325  
YC601B Digital display \$185  
Land Liner 101E phone patch \$75

**Citi-Fone:**  
SS 23 channel AM cb \$15

**DOSY:**  
Test Center 11M swr/watt meter \$75

**ROBYN:**  
T240D 40 channel Executive cb \$225

**TRAM:**  
Titan II 23 channel tube cb \$325

**TURNER:**  
Plus 2 tear drop base (black) \$20

**Assorted hand mics**

**Mobile antennas**

Contact AB8SY Charlie Rood at 989-846-8331 for any further information.

## *Training announcement*

*Lapeer County Emergency Management*

**FREE**

# Winter Spotter Training

*by the National Weather Service - White Lake Office*



- How to measure snowfall
- How and what to report
- 2012/2013 winter season
- Historic winter storms
- Winter Weather Safety
- 2013-14 Winter Outlook

**MONDAY, OCTOBER 21, 2013**

**7:00pm**

at Lapeer County Central Dispatch

2332 W. Genesee Street, Lapeer

Seating is limited, please call 810-667-0242, or email  
[mpiorunek@lapeercounty.org](mailto:mpiorunek@lapeercounty.org) to register.

Mary (Strikeleather) Piorunek  
Lapeer County Emergency Management  
2332 W. Genesee Street, Lapeer MI 48446  
810-667-0242  
[mpiorunek@lapeercounty.org](mailto:mpiorunek@lapeercounty.org)



## *Training announcement*

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The following trainings are being hosted by Kent County Search and Rescue and are open to the public:

Fortune bay expedition team's instructors are highly trained and very capable in all aspects of outdoor skills courses. Many FBET members are also members of Kent County Search and Rescue and several are nationally certified Search and Rescue Technicians and Evaluators. You will not be disappointed to take a course from FBET.

**(These courses are open to the public. You do NOT have to be affiliated with a Search and Rescue group to take the course.)**

Kent County Search and Rescue members should register through KCVRM or through [training@kentcountysar.org](mailto:training@kentcountysar.org). All Public participants should use the following links:

For more information please visit:

<http://www.kentcountysar.org/training-classes>

[http://www.fortunebay.org/?page\\_id=20](http://www.fortunebay.org/?page_id=20)

09/14/2013	<a href="#">Technical Rope Rescue</a> (TSAR1-TSAR3)
10/19/2013	<a href="#">Land Navigation and Orienteering</a> (LN1-LN3)
10/19/2013	<a href="#">Night Land Navigation Evaluation</a> (LN4)
10/20/2013	<a href="#">Survival and Improvisation</a> (SS1-SS2)
11/09/2013	<a href="#">Outdoor and SAR Leadership</a> (LEAD1)

# *Training announcement*

## **Midland County Search and Rescue Presents: Ground Search & Rescue Operations Course (SARO)**



### **Topics Include:**

- Ground Search Techniques
- Navigation
- Evidence/Clue handling
- Patient Transport and Packaging
- Night Search Techniques
- Search Equipment

Course meets or exceeds NFPA & NIMS requirements for Wildernes SAR

### **Prerequisites:**

Participants should have an understanding of Incident Command System and have taken FEMA IS-100 & IS-200 course or equivalent.

Participants need to be in good physical condition to take this course. Extended hikes in the woods carrying daypacks are expected of participants.

### **Agenda:**

Agenda given below is approximate and subject to change without notice.

- **October 4<sup>th</sup> 2013**  
Overview and Classroom training from 17:00 to 22:00 hrs
- **October 5<sup>th</sup> 2013**  
Classroom training from 8:00 till 12:00. Field training from 13:00 to 18:00. 1 Hr breaks for lunch and dinner between training. Night search beginning at 19:00 and lasting till 23:00 hrs.
- **October 6<sup>h</sup> 2013**  
Classroom testing from 10:00 until 12:00. Field testing from 13:00 hrs until 17:00.

### **Registration:**

See [www.midlandsar.org](http://www.midlandsar.org) for registration



## *Training announcement*

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### **Ham in a Day – October 6th 2013 (HIAD)**

#### **Technician Only**

Sponsored by: Kent County Radio Amateur Civil Emergency Service

#### **Description**

No technical knowledge or Morse code requirements are needed. This class is for anyone who would like to obtain their technician level amateur radio license. More than 1000 people have taken this class and passed! The class consists guided study sessions and hourly breaks followed by the FCC testing session.

\*\*This class uses memory retention.

People who have concentration issues or a learning disability may not do well in this type of class.

#### **Dates & Times**

October 6th 2013

13:00 – 18:00 Study Sessions - Tech

18:00 – 20:00 Testing Session

#### **Cost**

\$40.00 (includes FCC test fee)

#### **Registration**

<http://vrm.cc/hiad>

Bring a legal photo ID such as a Drivers License or Passport

If no legal photo ID is available then bring 2 pieces of photo ID.

No Walkin's You must RSVP!

Anyone 16 years old or younger must have a parent or legal guardian present for the entire session.

#### **Location**

Kent County Sheriffs Department EOC Room

701 Ball Ave NE, Grand Rapids, MI 49503

#### **Questions**

[hiad@kcest.org](mailto:hiad@kcest.org)

## L.C.A.R.A. MEMBERSHIP APPLICATION

PLEASE PRINT:

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

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

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

PHONE : \_\_\_\_\_ LICENSE CLASS: \_\_\_\_\_

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

ARES MEMBER YES \_\_\_ NO \_\_\_ E-MAIL ADD.: \_\_\_\_\_

ARE YOU AN A.R.R.L. 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

Lapeer County Amateur Radio Association

P.O. Box 12  
Hadley, MI 48440-0012

Officers

President: Kevin Boxey KB8TAR, 810-793-4986  
Vice President: Tom Oliver KD8EBY, 810-247-3227  
Treasurer: Bill Miller KD8VP, 810-797-5329  
Secretary: Flo Haack KC8CAB, 810-793-2606

Committees and Appointees

Club Call Trustee W8LAP: Mike Zedan KN8Z  
Repeater technical team: Lee N8LJ & Will KB8YGA  
Skywarn Coordinator: Tom Oliver KD8EBY  
Meeting Refreshments: Bill Miller KD8VP  
Newsletter Editor: Kevin Boxey KB8TAR  
Net Manager: Tom Oliver KD8EBY  
Testing Coordinator: **Volunteer needed**  
County EC: Tom Oliver KD8EBY  
County PIO: Dan Bain KC1BUD  
County AEC: Joe Medved KD8CIL  
County AEC: Kevin Boxey KB8TAR

