W8LAP

LCARA Waveguide

June Published Monthly by The Lapeer County Amateur Radio Association **2003**

Upcoming Swap & Shops

Saturday, June 14—Midland ARC Swap...contact: Bill French, AB8JF 989.835.5562
Sunday, June 15—Monroe Hamfest, Monroe County Fairgrounds...contact: Fred VanDaele, 734.242.9487
Saturday, June 28—Hastings, MI Ham Radio & Computer Swap,Barry ARA, Contact: Jack Hill, K8YPW, PO Box 370, Hastings, MI 49058.Email: field_day_swap2003@yahoo.com
Saturday, July 12—Harbor Springs, MI, Straits Area ARC http://www.w8gqn.org.
Sunday, August 2—E. Tawas, MI. Iosco County AR Enthusiasts

This month's Meeting is Tuesday, June 10th—7:30 p.m. At the Lapeer County Central Dispatch Center (911) at 2332 W. Genesee Street

Federal Communications Commission

***** Flash *****

New 60-Meter Band to Become Available July 3, 2003 at Midnight local time!

60-METER OPERATION TO REQUIRE OPERATOR PRUDENCE, CAUTION

When the five channels of the new 60-meter amateur allocation become available later this year, Amateur Radio operators will have to learn some new operating habits and adopt some new on-the-air attitudes. The limited spectrum and stringent bandwidth requirements will mean amateurs will have to demonstrate their best behavior and operating skills if the Amateur Service ever hopes to get an actual band segment at 60 meters.

(Continued on page 6)

Field Day is June 28 & 29, 2003

Field Day is an operating even designed to test emergency preparedness in less than optimal conditions. It is the largest on-the-air operating event sponsored by the ARRL. Field Day gives both experienced operators and neophytes a chance to share ideas and new experiences. Each year tens of thousands of amateurs and guests join in the excitement and camaraderie.

LCARA operates in Class A, which is made up of at least three persons which operate "in the field" away from a normal station location.

Depending on how many stations we can muster will determine our final class A. That is if we have two then we are 2A, three stations 3A, and so forth. Last year we ran 4A, with four stations on the air at the same time.

Field Day is fun, whether you are a hard core contester or just a casual operator. LCARA strive to get as many people involved as possible, and to have a good time doing it. Last year about twenty people were involved at some time or another during the weekend.

The most challenging part of Field Day rests in the planning, preparation and set-up of the event. But alas up to this point I have no one signed up to participate in our program. Come on people we need to know in advance whether you are going to put on a station at our event.

Please contact Bill Miller, KD8VP via the 146.620 machine, 810-797-5329, or e-mail at kd8vp@juno.com, as soon as possible.

Thank you and 73 Bill Miller KD8VP

[related article on Page 4]

Calendar P7
Club Stuff P2
DX P5
Field Day P1 , P4
For Sale P4
Lapeer EMD P3
Minutes P.3
Tech & Technique P3, 5, 6





Support Amateur Radio

Join the Lapeer County Amateur Radio Association and the American Radio Relay League. Have your voice heard both locally and nationally.

Lapeer County Amateur Radio Association
P.O. Box 12
Hadley, MI 48440-0012

Officers

President, Ken Kelch, AB8PM.....810-245-3907
Vice-President, Josh Long, N8CFS...810-724-6790
Secretary, Therese Long, KC8PEZ..810-724-6790
Treasurer, Bill Miller, KD8VP.....810-797-5329

Committees & Etc.

Club Founder.....Hollis Hayes, W8ACD
Club Call Trustee W8LAP.....Jim Boyer, KD8YX
VE Coordinator.....Al Wilson, N8NPR
Swap & Shop Chairpersons.....Ken Kelch, AB8PM
Field Day Chairman.....Bill Miller, KD8VP
Meeting Refreshments.....Bill Miller, KD8VP
Two Meter Net Mgr.....Jim Boyer, KD8YX
Newsletter Editor.....Hank Kohl, .K8DD
Club Historian.....Fred Church, N8ABR

ARES Repeater Nets

Monday at 9:00 PM on 146.620-
Thursday at 9:00 PM on 442.750+
Mon—Sat at 9:30 PM on 147.300+

Meetings

LCARA meetings are held on the second Tuesday of each month in the Lapeer County Sheriff's 911 center, 2332 W. Genesee St, Lapeer MI at 7:30 p.m. local time

Newsletter

Items for the newsletter may be called to the Editor at 721-0708, sent by U.S. Mail (Box 88, Attica, MI 48412), or as an ASCII file, Word file or hand-written to k8dd@arrl.net

The deadline for submissions is the 20th of each month.

Show your club colors

The following items, all with the LCARA logo, are available to members. Your name and callsign could be included at no extra charge.

Tee shirts.....$15.00
Sweat shirts, hooded.....$30.00
Sweat shirts, long sleeve without hood.....$18.00
Golf shirts, grey, yellow or white.....$19.00
Nylon jacket, windbreaker.....$35.00
Heavier poplin jacket, flannel lined, quilted.....$85.00

Sizes available to XXL at the prices listed above.
For each "X" above XL, add $2.00.

Call Flo Haack, KC8CAB , or contact her at any club meeting to place your order.

LCARA's Video Library

The club has a number of video tapes available for use by members at no charge. If you would like to borrow one or more of the tapes, contact Ken AB8PM, at any club meeting.

Titles presently available:

- Getting Started in Ham Radio
- Getting Started in DXing
- Getting Started in Packet Radio
- Getting Started in Amateur Satellites
- Getting Started in Contesting

Tapes may be retained by the borrower for one month and must be returned at the following month's meeting.

Board of Directors Meeting

The Directors' monthly meetings are held on the first Tuesday of each month at the BK Lounge at 7:30PM as needed (announced on the W8LAP repeaters). **All club members are urged to attend.**

Contributors to this newsletter:

Therese KC8PEZ Josh N8CFS
Mary Stikeleather Bill KD8VP Chuck WA8UCS

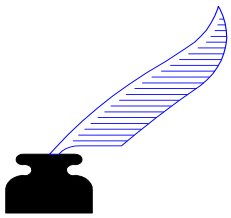
Your name and call should be here!

Do you Field Day?

While in Imlay City, support your local Radio Shack store



LCARA Monthly Meeting
May 13, 2003
Lapeer County Central Dispatch Center (911).



The meeting was called to order at 7:30 PM by Ken AB8PM with the pledge of allegiance, followed by the introduction of members and visitors.Upgrade and awards. Hospital and SK reports: Bill KC8SHI will be having surgery.

President's Report: More information on the tower site will follow. Discussion of the recent SKYWARN net. The upcoming Operation Care project was mentioned, with discussion following.

VP's Report: Josh N8CFS made a brief presentation on the minutes from the 1982-1992 club archives. He also made a recommendation that the 1992 bylaws and constitution be reviewed. After some discussion, ED W8NCJ made a motion to appoint a committee to review the 1992 constitution and bylaws. K8DD seconded. Motion passed. N8CFS was appointed by as chairman of the newly-established committee.

Secretary's Report: Given by Josh N8CFS for Therese KC8PEZ. Accepted as read.

Treasurer's Report: Given by Bill KD8VP. Accepted as read.

EC/Trustee's Report: Jim KD8YX made comments on the '82-'92 minutes. The Deanville repeater site is still in the planning stages. Discussion of the current repeater condition followed. Don N7PMN observed that he had heard S9+40dB interference on the repeater input frequency. Upcoming maintenance was mentioned.

TECHNICAL & TECHNIQUE

Larry W1GOR contributes a couple of cable lubrication recommendations just in time for the summer tower maintenance season. "Gearope is made by Kano Labs - http://www.kanolabs.com/. Gearope Gear and Cable
Lubricant is sold in liquid form, and in spray cans. A gallon can could be divided and put into small containers for a club." Larry soaks a cellulose sponge in the lubricant and then slides it along the cable. "Another product is PreLube 6 Cable Lubricant sold by Champion Radio at http://www.championradio.com/misc.html." Both products are available as sprays and Gearope is also available as a
liquid.
Summer is also electric fence noise-finding season. There are several common sources of noise; the charger, foliage on the fence, and poor fence connections. Walking the fence line with a portable radio (use VHF AM, if possible) will quickly identify poor connections or an arc to nearby plants. The former should be repaired (use a lineman's splice of several turns) and the latter should be cleared as a fire hazard. If neither are in evidence, check the charger by disconnecting the fence and listening right at the charger. These are rarely repairable and usually need to be replaced if noisy. Ask the store clerk to fire up a new charger for you before buying another one.
From ARRL Contest Rate Sheet for May 21, 2003

Lapeer County Office of Emergency Management

Things have been extremely busy with all the grants coming in, as well as the Full Scale Disaster Exercise set for Friday, May 30th at the Imlay City Fairgrounds. There hasn't been much time for anything else.

2001 DOJ Equipment Grant - stocked two existing decontamination trailers one in City of Lapeer and one in Elba. It also purchased and stocked a complete new trailer for the East Side of the County.

2002 DOJ Equipment Grant - Purchased 100+ gas masks for "every" road patrol (police officer) car in Lapeer County. Purchased AED (Automatic External Defibulators) for 7 Emergency Medical Service (EMS) ambulances throughout Lapeer County. It will allow Medical First Responders to get equipment. Purchased an Identification System for the Emergency Operations Center (EOC).

2002 Supplemental Grant - Purchased a laptop and LCD projector for the EOC. Allowed for revision of the Emergency Action Guidelines (EAG), formerly known as the Emergency Operations Plan (EOP).

2002 Exercise Grant - Paid for the Abbottville Training Exercises held back in February. Paid for items related to the Full Scale Exercise on May 30th.

2003 First Responder Grant - Was awarded $81,000.00. Purchases yet to be determined.

The "Emergency Services" newspaper insert should be in this Sunday's publication (June 1st) of The County Press. Look for the article on LCARA.

DON'T FORGET THE BEECHER TORNADO EVENT ON SUNDAY JUNE 8, 2003 AT THE BEECHER HIGH SCHOOL IN FLINT. WE WILL NEED REPRESENTATIVES THERE BY 9:00AM TO SET UP YOUR STATIONS. (WE HAVE A NICE SPOT PICKED OUT FOR YOU TO SET UP.) I LOOK FORWARD TO SHOWING GENESEE COUNTY HOW STRONG AND ACTIVE THE LCARA IS!!! P.S. THERE WILL BE A LOT OF PUBLICITY FOR THIS EVENT (i.e. CHANNEL 12 WILL BE BROADCASTING LIVE FROM OUR EVENT THAT
DAY).

I hope everyone had a safe Memorial Day Holiday!
Mary Stikeleather, Director
Lapeer County Office of Emergency Management

Be RadioActive—Participate!

Minutes ontinued from above.

Old Business: Operation Care was discussed.

New Business: Dave KD8DLW mentioned that Hollis Hayes W8ACD's transmitter is currently in storage at WMPC. Discussion followed. Bill KD8VP needs volunteers for next month's Field Day.

A motion was made and accepted to adjourn to coffee, doughnuts, and conversation @ 8:30 PM.

Respectfully submitted by Josh N8CFS for Therese KC8PEZ

Field Day is Coming!

What is Field Day? Is it a contest? Is it an operating event? Is it a social event? Is it a picnic? Is it a camping trip?

Some clubs go out and set up stations and make 1000 or more contacts per station and talk to a handful of visitors about Ham Radio. Some clubs go out and set up stations and make a handful of contacts per station and talk to 1000 visitors about Ham Radio.

Some clubs go out and set up stations and maybe make a few contacts in between eating, socializing, camping, talking to visitors about Ham Radio and then maybe eating again!

There are a lot of clubs around in a 50 or 60 mile radius, and one of them will be more than happy to give you a place to sit down and operate the way you like to operate for awhile—all night, if you don't stand up. And they will probably feed you too!

So, what is Field Day? Field Day is what you want it to be! What your club wants it to be. Most of all, it is one of the events on the ARRL calendar of events that is fun for everyone. **Support your local Field Day!**

Having trouble opening the Waveguide on-line?

Here is some advice to try if you are having trouble reading the Waveguide via email...For those who have IE and have trouble opening the Newsletter, check to see if you have the identified box "unchecked".

- Open Outlook Express
- Click Tools, Options
- Click Security Tab
- Remove check mark from box

Do not allow attachments to be saved or opened that could be potentially a virus

- Click Apply, OK

If anyone is concerned about doing this, they can apply this ONLY for getting the Waveguide, then return to the original setting.

Also go to www.adobe.com and download the latest Adobe Reader, which is available at no cost! The Waveguide is made with Adobe 5.0.

For Sale

This is a great place to sell what you don't need, give away what you don't need or look for what you can't live with out. Ads will be run for 2 months unless you let me know otherwise



==========

For Sale:

1. Kenwood TS-520 80-10m HF rig. Includes the manual, power cable, and a hand microphone. 125 watts out. Good cosmetic and operating condition. Asking $175.
2. Kenwood VFO-520. External VFO for the TS-520 series radios. Good condition. Includes cable to connect to the radio. $100.

Wanted: information on repairing a damaged Drake TR-4. Call Josh N8CFS at 810-724-6790 or email at n8cfs@arrl.net

For Sale: A TenTec Scout with plug in modules for 75 40 20 15 10, and 2 of some. For $ 450. Call Chuck WA8UCS or email to: wa8ucs@centurytel.net

For Sale:

1. Compaq LTE 5250 Pentium 120MHz. 10.5" display, Windows 98SE, 1Gb disk, Floppy, CD-ROM, 48Mb RAM, Joystick pointer & mouse, Office 97, Outlook, built-in sound, 2 batteries—poor, 33.6K modem. $120
2. Compaq LTE Elite 486DX75. 9.5" display, Windows 3.11, 340Mb disk, Floppy, 16Mb RAM, Trackball built-in & real mouse, Office 4.2, 10Mb PCMCIA Network card, 33.6K modem, battery-Poor, carrying case. $80
3. AT&T Globalyst 200 486DX75. 9.5" display, Windows 95a SP1, 330Mb disk, Floppy, 20Mb RAM, Trackball built-in & real mouse, Office 97, modem, battery-poor, carrying case. $80
4. Clegg 76 220 MHz transceiver. Crystal controlled with a bunch of crystals! $50 OBO
5. UHF Motorola Micor (2) partially converted for 9600 baud packet. $30 ea
6. Synoptics ethernet manageable hub. 10Mb. 16 port & 1 AUI port. $30
7. Cisco 2900 ethernet switch. 24-10Mb, 1-100Mb (fiber or utp) ports. $100

Contact Hank K8DD 721 0708 or k8dd@arrl.net

For Sale: Alinco 2 meter H.T. model # DJ-S11T, mini hand held with 350 miliwatts output, plus accesories, $45.00

Kenwood 2 meter Mobile model # TM 241, 50 watts output, touch tone pad on microphone is not working properly, $ 70.00

Call Bill Miller KD8VP at 810-797-5329 or e-mail to kd8vp@juno.com

DX Notes



Thor, **4W3DX** (East Tiomor) has been active again on 20M CW recently around 1200Z with a huge signal. His activity will continue through mid June.

W0YG will sign **VK9XG** from Christmas Island beginning in late Oct. (**VK9X** is in the top 25 most wanted list). He plans special attention to low band addicts & RTTY.

XW1IC (Laos) will be active during the month of June. He promises some low band activity but it is doubtful if there will much chance to work him on these bands from this area.

Logs for **TX4PG** Marquesas Islands are now on-line at www.digilander.libero.it/i2ysb. QSL via **I2YSB**.

VA3BY was active as **VA2BY** in Washkanagish, PQ (FO01) and along the Rupert River (FO11) in late May. SSB operation was by **VE3BY, VE3SLI & VE3KO.** CW operation was by **K8DD.**

TECHNICAL & TECHNIQUE

While you might know a whole lot of metric prefixes, here are some that I'll bet you were blissfully unaware of. "Yotta (Y)" is 10 to the 24th power, "Zetta (Z)" is 10 to the 21st, "Zepto (z)" (sounds like one of the lesser known Marx brothers!) is all the way down to 10 to the negative 21st power and "Yocto (y)" for ten to the negative 24th. These (and more) are found at http://www.essex1.com/people/speer/large.html. That would make the Seinfeld Number -- YottaYottaYotta -- bigger than a Google! (Thanks, Mike WA8MCQ)

If you have a trapped antenna and have gotten the traps mixed up or maybe need to troubleshoot them, this URL has a section on using a Grid-Dip Meter to help solve the problem - http://www.hal-pc.org/~kg5u/a3refurb.txt. Look for the section "Trap Troubleshooting." (Thanks, Dale KG5U)

From *ARRL Contest Rate Sheet for May 07, 2003*

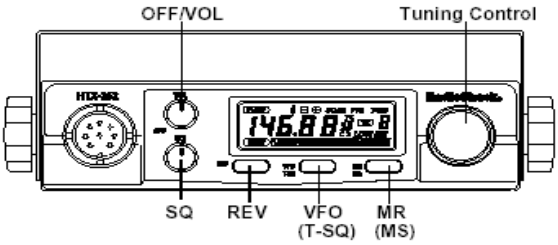
RadioShack
You've got questions. We've got answers.

HillCraft Electronics 888-520-2002

Just North of I-69 on Van Dyke (M-53)
In the Farmer Jack Plaza

Dealer

2-Meter FM Mobile Transceiver is a compact and versatile transceiver, for your vehicle or in your home.



HTX-252

Features:

- High (25 Watt) and Low (10 Watt) Power Settings
- 10-Memory Channels and 1 Call Channel
- Frequency Range of 144-148 MHz (TX) and 136-174 MHz coverage. You can also extend the transmit (RX)
- Channel Up/Down and 16-Key DTMF on the Mic
- CTCSS (Continuous Tone Coded Squelch System)
- Programmable frequency step
- Signal Strength Indicator
- Compact - 1.25" x 5.12" x 5.5" (HWD) & 1.54 lbs

$159.99

Compact Dual-Band 144/440MHz Transceiver with Built-In NOAA Weather Alert and 8-Point Compass



$269.99

As reviewed in the February 2003 CQ

HTX-200
2M / 70CM 200 mW handheld transceiver.
Closeout
$99.00

HTX-200

Features:

• Dual-frequency display dual band, 2M/70cm, 5 watt amateur radio HT
• Broadband receiver 108-174 and 420-512MHz with 100-channel memory
• Radio includes electronic compass and is compatible with Weather Receive and SAME Weather Alert
• CTCSS encode/decode
• Illuminated 16-key DTFM
• Multiple scan modes
• Power-out 5W on 2M, 4.5W on 70cm with external 13.8VDC or 4.2W on 2M, 3.2W on 70cm with 1200maH lithium-ion battery pack (included) H/M/L power settings, battery voltage meter, 7
• Includes empty battery shell; accepts 4 "AA" batteries

QRP WARC-SPEED DX CHALLENGE ANNOUNCED

Danny Eskenazi, K7SS, Ward Silver, N0AX, and the Western Washington DX Club--with the assistance of Bruce Horn, WA7BNM--have announced the year-long QRP "WARC-Speed DX Challenge." The objective is to work as many DXCC entities as possible using low power (QRP) on the so-called "WARC bands," 30, 17 and 12 meters.

The Challenge starts at 0000 UTC June 1, 2003, and ends at 2359 UTC May 31, 2004. For the purposes of the Challenge, QRP is defined as 5 W or less output on digital modes or CW and 10 W PEP on SSB. (AM or FM operators also are welcome.)

Certificates will be awarded for the top three totals from each CQ Zone in each of several categories for working 100 entities on any single band.

Results will be posted monthly in the following categories: 17-meter CW, 17-meter phone, 17-meter digital, 17-meter total, 12-meter CW, 12-meter phone, 12-meter digital, 12-meter total, 30-meter CW, 30-meter digital, total CW, total phone, total digital, total overall. Participants may enter as many or as few categories as they wish.

The Challenge involves no QSL cards or cumbersome paperwork. At the end of each month, WA7BNM will post a score submittal form on the 3830 Score Submittal Web page <http://www.hornucopia.com/3830score/>. Participants will enter their totals and updated totals will be posted to the 3830 contest score reflector and CQ-contest reflectors (and be forwarded to the DX and QRP reflectors, as well). At the end of the year, participants will be able to download a nice certificate! The honor system rules, Silver said, and he notes the Challenge is not a contest.

For more information, contact Ward Silver, N0AX, n0ax@arrl.net.

From The ARRL Letter , Vol. 22, No. 21

Parts, Parts Unscramble the Parts

snwiiggn oehkc	nkbo
eotsisrr	eemrt
trocaacpa	cithws
beut	olic
soritnastr	alpm
dtieetnarg uirccti	dcor
didoe	cylarts
ernoatmsrrf	rrodti lioc
eusf	jkca
rntccnoeo	uglp

If your e-mail address changes please let KD8VP and K8DD know so you get club email!

(60M Continued from page 1)

"In terms of Amateur Radio spectrum, we usually say, 'Use it or lose it,'" said ARRL CEO David Sumner, K1ZZ. "The watchword for 60-meter operators should be, 'Misuse it and lose it.'"

The channelized scheme--similar to the 5-MHz experimental operation under way in the United Kingdom<http://www.rsgb-hfc.org.uk/5mhz.htm>--puts unfamiliar technical compliance demands on US hams who have, until now, not had to worry much about frequency stability or transmitted audio bandwidth. The FCC has granted amateurs 5332, 5348, 5368, 5373, and 5405 kHz--the last channel common to the UK experimental operation's band plan. These are all "channel center frequencies," the National Telecommunications and Information Administration (NTIA) said in a March 13 letter to FCC Office of Engineering and Technology (OET) Chief Edmond J. Thomas. The NTIA, which administers federal government spectrum, opposed allocation of an actual ham band citing the ongoing spectrum requirements of federal licensees with homeland security responsibilities. The channels will be available to General and higher class licensees.

The NTIA says that hams planning to operate on 60 meters "must assure that their signal is transmitted on the channel center frequency." In general, the NTIA has advised, users should set their carrier frequency 1.5 kHz lower than the channel center frequency. According to the NTIA:

Channel Center	Amateur Tuning Frequency
5332 kHz	5330.5 kHz
5348 kHz	5346.5 kHz
5368 kHz	5366.5 kHz
5373 kHz	5371.5 kHz
5405 kHz (common US/UK)	5403.5 kHz

ARRL Technical Relations Manager Paul Rinaldo, W4RI, says the assignment of these channels implies that amateurs now must adhere to certain frequency tolerances for their use. While the international Radio Regulations don't list these for the Amateur Service, he notes, they do stipulate tolerances on the order of 20 to 50 Hz for other services.

"We haven't been told anything specific about frequency tolerances for these channels but would probably annoy federal regulators if we strayed any more than 50 Hz from the assigned carrier frequencies," Rinaldo cautioned.

Keeping one's audio within the 2.8-kHz wide channel to comply with the 2K8J3E emission specification is another important issue. ARRL Laboratory Manager Ed Hare, W1RFI, believes prudence calls for not having baseband audio below 200 Hz nor greater than 2800 Hz--for a total bandwidth of 2.6 kHz. "That will probably keep us out of trouble," he said. "Noting that the high-frequency response "can vary a lot from radio to radio," however, Hare recommended that amateurs play it conservatively.

Additionally, the FCC has restricted operation to USB only, with a maximum effective radiated power (ERP) of 50 W. The USB-only requirement stemmed from NTIA interoperability concerns. The NTIA wanted to make sure that federal users could copy and, if necessary, identify any amateur station using one of the 60-meter channels. As a

(60M Continued on page 7)

(60M Continued from page 6)

result, the 60-meter frequencies will become the only ones available to the general amateur community that do not permit CW operation.

For the sake of this particular grant, the FCC said it would consider a half-wave dipole to have a gain of 0 dBd. In its letter to the FCC, the NTIA stipulated that radiated power should not exceed "the equivalent of 50 W PEP transmitter output power into an antenna with a gain of 0 dBd."

"Although this is less spectrum than the American Radio Relay League petition requested, this is the best we can do pending a definition of Homeland Security HF requirements," concluded Fredrick R. Wentland in the NTIA's letter to the FCC's OET.

Sumner has predicted that, over time, amateurs can and will "develop a record of disciplined, responsible use of the five channels in the public interest that will justify another look at these rather severe initial restrictions."

Just when amateurs will get their first crack at 60 meters is not yet clear. The changes to Part 97 go into effect 30 days after publication of the Report and Order (R&O) in The Federal Register, which has not yet happened. Publication could take anywhere from a few weeks to a few months. ARRL will announce a specific date as soon as it's known.

Source: The ARRL Letter and ARRL Web.

June 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2 ARES Net 146.62	3	4	5 ARES Net 442.750 W1AW Qualifying Run	6	7 Grand Rapids Swap
8	9 ARES Net 146.62	10	11	12 ARES Net 442.750	13	14 AA DX CW Test WV QSO Party FLAG DAY
15 Fathers Day Monroe	16 ARES Net 146.62	17	18	19 ARES Net 442.750 W1AW Qualifying Run	20	21 Kid's Day Event Summer Begins!!!!
22	23 ARES Net 146.62	24	25 Korean War	26 ARES Net 442.750	27	28 Field Day Hastings, MI
29 Field Day	30 ARES Net 146.62					

Scramble answers swinging choke - resistor - capacator— tube - transistor - integrated circuit - diode - transformer - fuse - connector - knob - meter - switch - coil lamp - cord - crystal - torrid coil - jack - plug

2002-2003 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.CA.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.

Lapeer County Amateur
Radio Association
P.O. Box 12
Hadley, MI 48440-0012