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John McDonough WB8RCR Stan Rowe K6VWE Lee Hodges KC8ITI Pat Mullet KC8RTW John Tallman KB8PGW (Ch) Pat Mullet KC8RTW Pat Russell W8PMR Chuck Cribley WA8LQD Keith Johnson KB8SOE Pat Mullet KC8RTW	(989) 631-0178 (989) 837-7252 (989) 486-3771 (989) 828-6657 (989) 859-0364 (989) 828-6657 (989) 832-2924 (989) 488-9409 (989) 488-4337 (989) 828-6657

LIFE MEMBERS

Don W8WOJ, Lee KC8ITI, Dennis N8ERF, Larry N8CGP, Denny WD8BPT, John WB8RCR

Midland County Public Service Net, Thursdays at 9 PM
W8KEA Repeater — 147.000 MHz+ PL 103.5 • W8QN Repeater — 443.325 MHz+ PL 103.5
W8KEA Digipeater — 145.090 MHz

Next ARES®/RACES Meeting — Cancelled! Law Enforcement Center, 2727 Rodd St. Next CLUB Meeting — Thursday September 1, 2016, 7:30 PM Salvation Army Bldg., 330 Waldo Ave. Talk-in 147.000+

September

Static Discharge

John Wolters, W8QN

Thanks to Larry Macklin for the demo of his SDR receiver and Broadcast Band antenna. Lots of questions and interest. I hope the month of August finds you well and you have found a cool place during the warm days. I have been in Texas, Missouri, and Wasington, DC for most of July and the first half of August, and it has been hot. Heat indexes of 112°F were common. But with all this travel there has been time for HF in the car. The bands have been terrible but I've been able to make some interesting contacts. It helps to pass the hours on the road. September is election month for the Club. If you want to throw your hat into the election ring or just to make sure the "correct" people get elected, plan to be there, I will.

73, John, W8QN









The meeting was called to order by John, W8QN at 7:40 p.m. with 26 members and guests in attendance. Introductions were made and a sign-in sheet was passed around.

Please bring any corrections or additions to the attention of the secretary.

• Presentation: Larry,

MARC MEETINGS

Keith Johnson, KB8SOE, is in charge of special events and topics for the MARC monthly meetings. If you have any agenda items, or topics for the meetings, please contact Keith at (989) 488-4337, or via e-mail: kb8soe@arrl.net.

COMMUNICATIONS

Pat Mullet, KC8RTW, is in charge of communications and publicity for the club. If you have any questions or ideas regarding these areas, please contact Pat at kc8rtw@arrl.net.

EXAMINATION SCHEDULE

Saginaw - All future VE testing will be done on an appointment basis only.

Corunna - Contact Thomas Carpenter (517) 579-0599 ki8as@charter.net.

Bay City - All future VE testing will be done on an appointment basis only.

Isabella/Clare Counties - Contact Gus Glass, K8GUS at k8gus@arrl.net

With all examinations, your original license, a copy of that license, a second photo identification (drivers license, etc.) and a check or money order for \$15.00 made out to 'ARRL/VEC' are required.

The address listed below gives testing sessions scheduled for Michigan. http://www.arrl.org/arrlvec/exam-search.phtml?State=Ml

SUBMISSIONS FOR NEWSLETTER

Contact Pat Mullet, KC8RTW at kc8rtw@arrl.net if you want to submit anything for the newsletter.

I need your items by the 15th of the month. Anything received after that may not make it into the newsletter for that month

If you prefer to download the MARC newsletter from our web site, or have trouble with delivery via USPS, contact John, W8QN at w8qn@arrl.net.

MEDIA HITS!

Have you seen or heard mention of the Midland Amateur Radio Club in the news or in the paper? If so, please forward it, or mention of it to either Pat, KC8RTW (kc8rtw@arrl.net) or John (w8qn@arrl.net) N8CGP—A presentation of Software Defined Radio (SDR Receivers) and Loop Antennas was made by Larry. Discussion followed.

- Treasurer's Report— Larry, N8CGP— Thank-you to all those who have renewed their membership dues.
- Dirty Dog Run—Lee, KC8ITI A sign-up sheet was passed around to help with the Dirty Dog Run on Aug. 27th. Volunteers are needed to man positions in the City Forest course for the five and ten K runs. We should be on station by 8:30 a.m. and should be finished by noon. See Lee if you would like to help with this worthwhile cause.
- QSO Party— Art, K0ACP— The second of three QSO Parties are coming up.
- AES—John, W8QN— Amateur Equipment Supply has gone out of business.
- Dayton Update—Art, K0ACP— The Dayton Hamfest is going to be moved from Hara Arena to a new site in Xenia, Ohio. Get your motel reservations soon if you plan on going next year as they are filling up fast.
- Chuck, WA8LQD— Best regards to Chuck who had heart surgery three weeks ago. He is doing well and getting better.
- ID Pins—Mike, KD8HMM— Anyone who needs a very nice ID

badge with your name, call sign and club logo on it see Mike to get an order form.

- Tall Ships— Lou, N8LOU—Gave a report on the Tall Ships in Bay City. 250 radio contacts were made from the USS Edson and a good time was had.
- Russian Contact—Steve, WA8Y— Steve was telling about his first Russian Contact.

NET Control: August 11th Steve WA8Y August 18th John W8QN August 25th Dennis N8ERF

- Recycle Magazines— Lee, KC8ITI— Lee brought magazines and some other items for free in the back of the room.
- Repeater— John, W8QN— Some issues with the Edenville Repeater not transmitting. It's being checked into. An antenna discussion followed.
- Elections in September John, W8QN— If there is anybody out there who would be willing to take on the vice-president position please let John know.

A motion to adjourn was made by Larry, N8CGP and seconded by Dorie, N8WTQ.

The meeting was adjourned at 9:15 p.m.

Respectfully submitted, Linda, KC8MUD MARC Secretary

My Two Cents

comes deal on a widescreen digital mor

I'm afraid that when it comes to Amateur Radio, I haven't been on the air much in the last month, despite wanting to play in a few of the contests—life just seems to keep getting in the way. Instead, I've been putting in more time on the hardware side of things.

Earlier in the year, I'd found a

deal on a widescreen digital monitor for my station desktop computer. I'd been looking for one for a while, because a needed more "real estate" on my windows "desktop" to take advantage of my logging program. I was surprised and disappointed when I plugged the monitor into one of the ports

Amateur Radio is a Contact Sport!

of my dual display video card and saw an old-style NTSC aspect ratio display rather than the 16:9 I was expecting. I initially thought that this was due to the fact that I had a fairly old card, but consulting with Keith, KB8SOE, led me to believe I could get the proper screen-width if I changed the VGA splitter cable from the card to a DVI splitter. A quick perusal of eBay showed I could get a newer dual monitor video card with the DVI splitter cable for a little more than the cable alone, so I "updated" it. A week later, the card appeared in my mailbox, I slipped it into the tower's video slot, and I had a fully functional monitor!

I spent more time gathering parts for the portable digital station I'm working on. I bought a used Yaesu FT-817 portable HF/VHF/UHF radio at the swap, and I've been replacing a few parts and adding others. I ordered a rechargeable battery and charger, but found out after it was delivered that it was only meant to provide sufficient current to charge the battery while the '817 was off. Back

to plan "B." I'd originally planned on using the switching supply from a defunct laptop to power Yaesu's little wonder, but the output was 18VDC/5A—I'd need a high current regulator to safely drop the voltage to 12 volts I wanted. As I began to create a list of the parts I'd need, I happened to glance at the power supply for the monitor I'd replaced earlier. A quick check showed it put out 12VDC/2A. It would work, but I had plans for the monitor, and I wanted to be able to power either my WinBook or Android tablets while operating in the field. Another quick trip to eBay yielded an OEM LCD monitor switching supply rated 12VDC/6A, more than enough to drive everything I wanted, and for only \$5.00 plus shipping.

Now, as soon as the weather cools off enough that I feel like soldering, I can wire up the power supply, the adapter I need for the CAT cable and the sound card interface, and be ready to roll.

Hope to catch you on the air.

73, Pat, KC8RTW

ARES®/RACES John Wolters, W8QN

There will not be an ARES®/RACES meeting in September.

Future Club Meetings

The following is a list of the future presentations that will be made at club meetings.

We reserve the right to change, substitute, or change the date as the case requires.

September — Open

October — WSPR Demonstration, Will Halphen, Salvation Army Building, 7:30 pm

The SOS-Dirty Dog Run

The Dirty Dog run is on Aug. 27th 2016. Volunteers are needed to man positions on the City Forest course for the 5K and 10K runs. Check-in will be at the North City Forest parking lot on Monroe just west of Eastman prior to 8 AM and operators should be on station by 8:30 AM. The first race starts at 9 AM. The event should be finished

by noon. Assignments will be given when checking in. If you would like to help with this worthwhile event or need more information contact Lee, KC8ITI at (989) 486-3771 or email me at kc8iti@arrl.net.

Lee - KC8ITI

Upcoming Events

8/27 Dirty Dog Run

Michigan Hamfests

9/10	Shelby Township
9/18	Adrian
9/24	Wyoming
10/8	Alpena
10/15	Muskegon
10/16	Kalamazoo
10/30	Madison Heights
12/4	Madison Heights
3/11	Lowell

Area Nets SVARA: Mn, 147.24 MHz, 2100 ET Canadian Lks, Wed, 146.8, 2100 ET Edmore, Th, 146.8, 2000 ET MARC: Th, 147.00 MHz, 2100 ET District 3 ARPSC: Su, 145.31 MHz, 1830 ET Mi VHF Trffc Net; MWF, 145.15 MHz, 0900 ET TMMTN: Mon-Sat, 147.30 MHz, 2130 ET MACS; Sun-Sat, 3953 kHz 1100 ET MITN; Sun-Sat, 3952 kHz, 1800 ET QMN: Sun-Fri, 3563 kHz, 1830 & 2200 ET WSSBN, 3932 kHz, 1900 ET UP-ARES: Fr. 3932 kHz. 1930 ET GLETN: Sun-Sat, 3932 kHz, 2030 ET SEMTN; Sun-Sat, 145.33, 2215 ET MiDTN - 1900 local Tu, Th, Sat 3.583

MARC MERCHANDI SE			
T-Shirt	S- XL	\$10	
	2X - 3X	\$12	
Long-Sleeve Tee	S- XL	\$12	
	2X - 3X	\$15	
Crew Sweatshirt	S- XL	\$18	
	2X - 3X	\$20	
Hoodie	S- XL	\$24	
	2X - 3X	\$26	
Zipper Hoodie	S- 3X	\$30	
Winter Coat	S- XL	\$42	
	2X - 3X	\$45	
Spring Jacket	S- XL	\$32	
	2X - 3X	\$35	
Hat		\$10	

All garments are royal blue with white print and embroidered name and number. Extended sizes available.

Please call Bill Lee at B&C Sportswear with questions @ (989) 839-4537.

When you receive notice that your license plates are due for renewal and on the bottom it says "Must be replaced", be prepared. Yes, you will get new plates because the computer says so. After 45 minutes or so at the counter with a very nice young lady, we got things straightened out. See

Kellie at the Midland office. You will be issued a temporary paper license plate and in six or so weeks, you will get your new amateur radio plate. The directions on her computer were not very clear and after a phone call to the Secretary of State's main office and local staff help, the problem

was solved. Now it should not take more than a few minutes at the Midland office to replace your amateur radio plate with a new temporary plate and wait for the post office to deliver your new plate.

Denny, WD8BPT

Fall 2016 Technician Class Scheduled

The Midland Amateur Radio Club is organizing an Amateur Radio Technician License class starting Monday, September 12th and will meet on Mondays and Thursdays for the next six weeks at Midland High School Room 321, 1301 Eastlawn Drive. Each class will start at 7:00 pm and run approximately two hours, cover-

ing everything you need to know to obtain your first Amateur Radio license.

There is no fee for the class, though the textbook used—ARRL Ham Radio License Manual, Third Edition has a list price of \$29.95. If you order the book through the class, you can get in on the club discount and get the

book for \$23.00.

A testing session will be scheduled at the conclusion of this class.

For more information, contact Lee Hodges either via email at kc8iti@arrl.net or by phone at (989) 486-3771

Growth in New Amateur Radio Licensees Ahead of Last Year's

(ARRLWeb—08/09/2016)
The ARRL Volunteer Examiner Coordinator (VEC) reports that 20,447 new US Amateur Radio licenses have been issued since January 1. That's nearly 1500 ahead of the number that had been issued by this time last year. At the present pace, the US is on

track to exceed 30,000 new radio amateurs for the third straight year by the end of the year.

"While I am thrilled with this prospect, I'm also keenly aware that without some mentoring, these new hams' initial curiosity and enchantment may fade if they don't get on the air right away,"

said ARRL VEC Manager Maria Somma, AB1FM. "Let's show these new hams what the magic is all about," she urged.

In addition, the ARRL VEC reports that upgrades are on track to reach nearly 11,000 by year's end.

Dayton Hamvention Moving to Greene County Fairgrounds in Xenia

(ARRLWeb—08/01/2016)
"X" marks the spot! Hamvention® announced today that it will be moving to the Greene County Fairgrounds and Event Center in Xenia, Ohio, after 52 years at Hara Arena. That's about 16 miles east of Dayton center off US Route 35 (see map). Hara Arena announced last week that it would

be closing, and Hamvention indicated that it soon would be announcing its back-up plan for a new venue in the Dayton area.

"We appreciate and value all the time and effort of the many partners, in particular the Greene County Agricultural Society, the Greene County Board of Commissioners and the Greene County Convention & Visitors Bureau has put into helping Hamvention find the right venue to continue our long history here in the Miami Valley," Hamvention General Chair Ron Cramer, KD8ENJ, said. "We look forward to a long and mutually prosperous relationship."

Last week, after Hara Arena announced it would close, Cramer

It's Not Your Grandfather's Amateur Radio!

had said, "We have spent many hours over the last few years evaluating possible locations and have found one in the area we believe will be a great new home! We all believe this new venue will be a spectacular place to hold our beloved event. Please rest assured we will have the event on the same weekend and, since it will be in the region, the current accommodations and outside events already planned for Hamvention 2017 should not be affected."

Hamvention chief spokesman and board member Mike Kalter, W8CI, told ARRL today that announcement of the new venue came a bit sooner than he'd anticipated last week. He pointed out that the event annually attracts in excess of 25,000 visitors from every US state and some 60 countries around the world.

"The key thing is that we plan

to have a 5-star event," he said of Hamvention 2017. "We'll put a lot of time and energy into it."

The move to Xenia could prove to be a huge financial bonanza for the city and Greene County. Hamvention typically has meant millions of dollars to the Dayton/Montgomery County area, and some of that benefit now could migrate eastward down US 35. Kalter conceded that the new venue in Greene County is a slightly longer drive from Dayton City Center — where some Hamvention-related events traditionally occur — than it was to Hara Arena, but he believes it will be worth the trip.

"Montgomery County didn't have anything for us," he said. "We looked exhaustively. We've known this is what we'd do for about a month — if Hara Arena would no longer be available."

And the flea market at the new site? "Our plan is to have a much better flea market," Kalter said. "We have two or three different options, but we think people are really going to like it."

He said the entire fairgrounds facility was rebuilt several years ago after it was destroyed by a tornado, so the buildings are newer than Hara, which was built in the 1950s. He said there will be opportunities to bring in campers — with 30 A service, water, and sewer available.

Kalter believes the change in venue in and of itself will be a big incentive for a lot of people who may be just thinking about attending Hamvention 2017 right now. "We expect next year to be a big year," he said. "We expect a lot of people to come to see what it's like."

New Hamvention Venue: "You Will Be Very Impressed," Chairman Assures

(ARRLWeb—08/10/2016)

Dayton Hamvention[®] is moving on after 52 years at Hara Arena, and 2017 preparations at the show's new venue in Xenia, Ohio, now are in full swing, two Hamvention officials explained this week on the Amateur Radio Roundtable webcast hosted by Tom Medlin, W5KUB. Hamvention announced on August 1 that it would relocate to the Greene County Fairgounds, after Hara Arena made it known that it would close at month's end. Hamvention 2017 General Chair Ron Cramer, KD8ENJ, and official spokesperson Mike Kalter, W8CI, fielded questions from Medlin and callers during the hour-long August 9 show. Cramer said some members of the Amateur Radio community entertain preconceived notions about the new venue that are "far off base," and he and Kalter wanted to set the record straight.

"Change is hard for everyone, but I think this is a very good move for us," Cramer said. "You will be very impressed." Kalter echoed the sentiment. "We want to start out great and get awesome," he said. Kalter said there's been a lot of second-guessing, but that "a lot of overriding factors" and year-long search led to the selection of Greene County Fairgrounds.

Kalter assured those planning to attend Hamvention that Fairgrounds buildings — particularly those used for showing livestock during the county fair — are "absolutely clean" and well maintained (see attached layout map). He and Cramer expressed confidence that everyone will find plenty of available parking and room for all traditional Hamvention activities — more than may be evident at first glance. Vendors who have already visited the new site to get the lay of the land went

away "excited," they said.

At this point, no hard-and-fast decisions have been made as to how Hamvention will put the available buildings and space to use next spring, but Cramer and Kalter said the Fairgrounds staff has been especially helpful. "We're all working together now to make this happen," Kalter said, and that Hamvention officials remain open to questions and suggestions.

Cramer took time to quash one misconception about Hara Arena. "Even though they had air conditioning," he said, "air conditioning was never used there. The doors were open, and they did not want to turn on the air conditioning unless the doors were closed. So, I don't think air conditioning was used at all — at least in the last 10 years."

Some air conditioned space already available at the new venue may be suitable for such activities

Explore the World with Amateur Radio!

as forums, and the Fairgrounds is looking to upgrade existing ventilation systems in non-air conditioned buildings. "We're looking at the possibility of air conditioned 'chalets'" for forums, Kalter said.

The prime area under consideration for the popular outdoor flea market is inside the racetrack oval, they said, and additional adjacent space is available, if it's needed.

The venue will have wireless Internet coverage. "We've already

moved some of the equipment out of Hara, and we think it will do a good job there," Cramer said. Kalter added that the Fairgrounds staff is working on upgrading the Internet "pipe" to the venue.

As for the admission price, "We're still working on that," Kalter said. "We have not made a decision. We may leave it at the same price or slightly more than that, but no great increase." Tickets this year were \$20 in advance and \$25 at the gate for all 3 days.

Cramer and Kalter said Ham-

vention anticipates being ready to start selling tickets and vendor spaces by November — and perhaps earlier.

Kalter stressed that the sponsoring Dayton Amateur Radio Association (<u>DARA</u>) puts "an awful lot back into ham radio in donations," all raised entirely through Hamvention.

"We need your help. We need your support," Kalter said. "Hamvention needs to move on, and we intend to make it happen, with everybody's help.

Updated Android Digital QST App Now Available

(ARRLWeb—07/28/2016) A completely rebuilt *Digital QST* app for the Android platform now is available from publisher Nxtbook Media, which responded to readers' frustrations about getting the app to work properly. The fix took longer than expected, but it is finally here!

Members who have enabled

automatic updates on their devices will not have to do anything; the application will update automatically. Readers who have automatic updates turned off can obtain the new version by visiting the Google Play Store.

Functionality in the new app remains the same, although the layout is slightly different — displaying the most recent magazine at the top and two or three issues per row, instead of in a single column. Download times should be faster as well.

For optimal performance, it is recommended that Android users have the most up-to-date Android operating system, which is Marshmallow 6.0.

Technical Topics and Information

(ARRL Contest Update—July 27, 2016) Presentations from the 2016 Dayton Antenna Forum are now available on the K3LR website. Included are presentations on (intentionally) bent-element Yagi antennas, the future of the ARRL Antenna Book, low band antennas at W3LPL, and wideband techniques used in OWA antennas.

- ♦ IEEE Spectrum recently published what amounts to a history of RFI, but which also includes an overview of some new technologies and services such as 5G and Citizens Broadband Radio Service (CBRS).
- ♦ Panadapters are considered one of the new *must haves* when contesting nowadays, as they in-

crease overall situational awareness. Mark, K6UFO, found a very simple way to add a panadapter to Elecraft K3: Win4K3Suite software now supports the SDRPlay SDR receiver as a panadapter. I ordered an SDRPlay from Ham Radio Outlet. When received, I installed the drivers as described by "Start Here" at SDRPlay, then downloaded and installed Win4K3Suite with a 30-day free trial. I connected my K3 and made a few initial settings and the panadapter was working! I wanted to use my Writelog logging software to control the K3, so I used Win4K3's 'AUX/CAT' feature to provide a virtual serial port connection to

Writelog while Win4K3 was physically connected to the K3. All of this is documented in the Win4K3 manual. I created a pair of virtual serial ports using Microham software, but Eltima or Com0com would have worked. Now my K3 connects to Win4K3, and one of Win4K3's 'CAT/AUX ports' connects to my logging software. Both Win4K3 and Writelog can control the radio, and I have a panadapter! I purchased Win4K3 for \$50, to bring my total panadapter cost to \$200. Other SDR software can be used with the SDRPlay, but Win4K3 is already setup for a K3 and the SDRPlay as a panadapter, so it was very straightforward."

More Technical Topics and Information

(ARRL Contest Update—Aug. 10, 2016) Faraday

Cages work...how, exactly? One person's journey to understand

them on a physics level yielded a number of surprises, and questions the accuracy of conventional explanations.

- ♦ As RF design goes nearly all digital, this EDN article provides a look at what it's like to design radios using digital building blocks. One of the biggest changes is that the design environment may provide a working prototype without the necessity of building any hardware.
- ◆ FreeSRP is an SDR that covers 70 MHz to 6 GHz, and is open source and open hardware. What's more impressive it was designed and built from scratch by a motivated 18-year-old. He dis-

<u>cusses how</u> he did it and talks about the platform in this Reddit.

WORD TO THE WISE

Diplexer - A device that is used to combine different frequencies or bands to a single output, or which can separate a common input into different bands or frequencies. They are common in UHF/VHF mobile applications where 2 meter and 440 MHz radios share a single coax cable to feed an antenna. In recent WRTC contests, triplexers have been used to allow two radios on

two different bands to simultaneously use a tribander antenna.

(Duplexers or "cans" are resonant cavity filters with very steep "skirts" that allow repeaters with transmitters and receivers on the same band to use one antenna-Ed.)

got rf?

	C Vital Sta		rships Expiring	in August		
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		Manalaan		. C 4 1		
		Wiember	ships Expiring in	September		
			NONE			
		Member	rships Expiring i	n October		
			KD8ULT			
		Men	mbers in Good St	tanding		
AC8QF AC8RT AG8B K0ACP K6VWE K8RI K8VB K8VFO KA9WCS	KB8PGW KB8SOE KB8TBI KB8VSS KC8CTG KC8IHB KC8ITI KC8M KC8RTW Active Club Membe	KC8TQS KD0JHX KD8HIH KD8IWB KD8MMH KD8MRB KD8QAM KD8QXK KD8QXK KD8ULA	KD8ULT KE8CTH KE8CTI KE8DON KE8DOP KE8EOW N8CGP N8DHF N8ERF	N8JBW N8KRL N8LBF N8LOU N8NGT N8WTQ NX8A W8LSS W8PMR	W8QN W8WOJ W8ZSX W8ZSX WA8KJR WA8Y WB8FYR WB8FYR WB8RCR WB8WNF	WD8AXR WD8BPT WD8ODG WN8QGV
		Birthdays Co	elebrated in Aug	ust/September		
N8XD 8/1 KB8QWO 8/3 K8VFO 8/6 KB8QYB 8/9 N8LBF 8/17 WD8BPT 8/18		W8JB 8/23 KD8MRB 8/24 WB8FYR 8/24 KD8IWB 8/27 N8DHF 8/29 KD8EUR 8/31		KC8ZMQ 9/6 N8STF 9/9 N8FUZ 9/17 KB8PGV 9/17 KB8SOE 9/19 KC8CTG 9/22	KC8GRQ 9/27 KB8WEE 9/24	
				ugust/September		
KD8QXL and KE8EOX 8/04 KB8TBI and Margie 8/8 KB8TBI and WD8ODG 8/13 KD8ULA and Judy 8/14 K8VB and ??? 8/15 KE8DON and Marcia 8/18 KA0KPP and Gail 08/19 N8LBF and KB8QYC 9/6 W8JBD and ??? 09/10 KC0CJC and Sally 9/12		08/19 /C 9/6 9/10	AG8B and Janell 9/22 K8RI and N8JBW 9/26			



If you desire to join the Midland Amateur Radio Club, the dues are \$20 per year for an individual membership. A family membership is available for an additional \$5 per year which covers all of the individual's family members. Family members must reside at the same address as the primary member to be eligible for the family member rate. The membership dues help to cover the operating expenses of the Club, and its radio systems. Membership includes Autopatch privileges on the W8KEA repeater (147.000+), voting privileges at MARC meetings, and a monthly newsletter. Please supply the following information:

Name:	Callsign:	License Class
Address		
City	State	zZip
Home Phone ()	Work Phone ()	
E-mail address		
Spouse:	Callsign:	License Class
Birthday: (mm/dd)	Anniversary: (mm/dd)	_
Desired newsletter format:	Paper copy via USPS or via e-mail_	
Are you an ARRL Member?	Y/N Do you want an ARES Application	on? Y/N

We request this information so we can communicate with you regarding MARC business, and periodically send you newsletters and congratulatory birthday & anniversary greetings. We do not sell this information nor will we knowingly publicize private information without your permission. Information that is publicly available may be distributed to Club members for

various purposes, including membership lists, without prior notification.

You may give this completed form to the MARC treasurer, or you may mail it to:

MARC, PO Box 1049, Midland, MI 48641-1049