

The Zero Beat

THIS MEETING

January 14, 2015 7:30 P.M. Hoover Elementary School 23720 Hoover Ave. Hazel Park, MI 48030

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GENERAL MEETING

The next meeting of the Hazel Park Amateur Radio Club will be held on Wednesday, January 14, at 7:30 PM. The meeting location is Hoover Elementary School, 23720 Hoover Ave, Hazel Park. This month, Jerry Radcliffe N8KLX will talk about life as a seagoing radio operator, and how the job has evolved since 1912. Jerry was a radio operator in the US Merchant Marine fleet.

Come early and visit with fellow hams. Everyone is welcome to come to the meeting and bring a friend along. Coffee and donuts will be provided during the break.

Anyone wishing to join the club, please go to the website www.hparc.org. Fill out the membership form and bring a printed copy to the meeting. Membership forms can also be filled out onsite before the meeting.

PRESIDENT'S QRM

This is January and a start of a new year. Most hams in Michigan and surrounding states and Ontario are aware of the Hazel Park Swap. We have a very high rating from conversations among hams I hear at other swaps. As a club, we should do what is necessary to keep that image.

The swap this year, the first time ever, falls on the Sunday before the January club meeting. So don't be surprised when all of a sudden the swap is upon us. Barb, KD8SAA tells me everything is in place to have a great swap. The last I talked to her, she still needs cashiers.

Now it is up to the membership to make sure this is the best swap ever. The slight upturn in the economy may

help. Phone Barb and ask not what the swap can do for you; but what you can do for the swap.

The Holiday meeting went off very well. Everyone I talked to seem to be satisfied with the food.

Presentation for January will be about Shipboard Radio Operations, presented by Jerry Radcliffe. Let's all pretend we are on a ship to the Bahamas.

The DART is quite active since Echolink was added. An increased number of amateurs are using the DART. Now you have the opportunity to get out there and make contacts anywhere you want, just key in the node. We do not want to use the repeater as a receiver. Access your node, make contact,

(Continued on page 2)

Hazel Park Hamfest, Sunday, January 11, 8 AM — 12 PM Hazel Park High School, 23400 Hughes St.

OFFICERS

- President: Jim Poehlman K8ABZ 248-310-0086 k8abz1@gmail.com
- 1st VP: Jim Poehlman K8ABZ 248-310-0086 k8abz1@gmail.com
- 2nd VP: John Teagardin AA8UU <u>aa8uu@arrl.net</u>
- Secretary: Bill Ketel N8QVS 248-544-2452 wketel2@wowway.com
- Treasurer: Bob Lauer N8REL 248-652-4211 rlau6@aol.com
- Director: Barbra Hildebrand KD8SAA <u>barbrahildebrand</u> @yahoo.com
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 Ed Walton N8LBS
 248-649-5851
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VOLUNTEERS

- Technical Coordinator & W8HP Trustee: Tony Gallucci N8VR 248-417-9740 n8vr@arrl.net
- W8JXU Trustee: Bill Ketel N8OVS
- Education/VE Testing: Jerry Begel W9NPI w9npi@comcast.net
- Contest Mentors:
 Mike WD8S wd8s@arrl.net
 Gerry K8GT k8gt@arrl.net
- Public Information Officer: Jerry Begel W9NPI w9npi@comcast.net
- LoTW Manager: Murray Scott KE8UM ke8um@arrl.net
- Newsletter:
 Wes Plouff AC8JF
 ac8jf@arrl.net
- VUCC/WAS Awards Card Checker: Sean Fleming K8KHZ k8khz@vahoo.com
- Siren Tests:
 Marsha Fleming N8FE
 248-542-9573
 Assist Ed Walton N8LBS

- Meeting Coffee: (open)
- Donuts: Rey Bora W8REY
- Sunday Net: Bill Ketel N8QVS 248-544-2452 wketel2@wowway.com
- Banquet: Rey Bora W8REY rey62@aol.com
- Field Day Chair:
 John Teagardin, AA8UU
 <u>aa8uu@arrl.net</u>
- HPARC Official Cook: Bill Ketel N80VS
- Swap: Swap Chair
 Barbra Hildebrand KD8SAA
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- . Holiday Party: The Board
- Webmaster: Larry Koziel K8MU <u>k8mu@amsat.org</u>
- Oak Apple Run Royal Oak: Mike WD8S
- MS Walk Chair: Phil AA8KR 586-838-4139
- Walk for Babies Chair: Jim K8ABZ k8abz1@gmail.com

HAMFEST HELP STILL NEEDED

Barb KD8SAA reports that volunteers are still needed for the Hazel Park Hamfest on Sunday, January 11. One particular need is: hams who know the Hazel Park area well and can give good directions on the talk-in station.

Everyone can help on Saturday, January 10, with setup. The cafeteria needs to be rearranged and more tables get set up in the hallways. This has taken about two hours in past years. Show up at the loading dock of Hazel Park High School at noon Saturday. This is located at the back of the building off Felker Ave.

After the hamfest is over, at noon Sunday, volunteers are needed to help pack up the hamfest tables and return the school to normal. This should also take no more than two hours.

Late-breaking news! Stan Arnett AC8W will be on site for DXCC card checking.

For any questions or to volunteer for slots during hamfest hours, please contact Barb Hildebrand KD8SAA at barbranhildebrand@yahoo.com or phone her at (586) 222-6348.

QRM, CONT'D

(Continued from page 1)

have your QSO, when done with your QSO, drop the node. There are others that may want to use the repeater.

The January meeting is when you turn your November CW and Phone Sweepstakes summary sheets so John AA8UU can order pins and cups to be presented at the banquet in June.

Don't forget the swap is January 11th, one week earlier than all past years.

The meeting is January 14th, bring a friend and let's have some fun.

Here is hoping you and your family had a great holiday season and looking forward to a prosperous and healthy New Year!

Jim Poehlman, K8ABZ President.

LICENSING CLASSES

Jerry W9NPI reports that enrollment for the General and Extra Class license training classes is coming along nicely. Here is information for those who would like to get an FCC amateur license or upgrade the one they already have.

General and Extra Class

Jerry will allow a few last-minute students to join General and Extra sessions that begin Monday, January 12, at Lawrence Tech.

Technician Class

A Technician license training class will begin at Lawrence Tech on Monday, February 9 and run for 12 weeks. Registration deadline is January 26

Registration

See full details in the December 2014 Zero Beat. Contact Jerry Begel, HPARC Education Coordinator, at W9NPl@arrl.net.

Tech in a Day

A nontraditional class promises a Technician license in one day. The class will be held Saturday, January 17, at the Ann Arbor Hands-On Museum, 221 E. Ann St., Ann Arbor. It runs 9 AM to 3:30 PM, followed immediately by testing. \$10, pre-registration required. See http://www.kb6nu.com/next-one-day-tech-class/ for details.

STAMPS STILL 49¢

The US Postal Service has announced that stamp prices will remain the same in 2015. That means a letter still costs \$0.49, each extra ounce \$0.21, and a one ounce international letter \$1.15. The USA is the exception to the worldwide trend of rising postal rates.

However, US postage rates might still rise in the second half of 2015, depending on the actions of the Federal commission that approves rates.

NEW CALLS NOW KE8

Settling a question on some hams' minds, the FCC has rolled its 2x3 sequential call signs over from KD8 to KE8. KD8ZZY was issued to Vince Chrisman of Sterling Heights on December 15. Vince has already been heard on the DART repeater. The same day, Katherine Schmidt of Southfield received KE8AAA. (KD8ZZZ is listed as a vanity call.) By the end of 2014, new call signs had reached KE8ACI. So the KE8s are here to stay!

FIELD DAY WORKING GROUP



By John Teagardin AA8UU

This year for Field Day we are going to try doing a few things different. One thing I want to do is to get the club organized a lot sooner. That's why you are reading about Field Day in January.

I would like to form a Field Day Working Group. Calling it a committee would be too formal. Anyone interested can sign up. There are some things about Hazel Park Field Day that could definitely be improved. First on the list is to get more members taking a turn at operating, and getting operators spread out through the contest. We've had times when there are too many people wanting to get on the air, and times when there's nobody sitting in front of some of the rigs.

The group could provide an organization. This would help planning the stations, the layout, and the antennas.It would be great to have everything ready to go in less than two hours from arriving on site.

We should be operating so that the experienced contesters can spend time coaching the contest newbies, then sit back and let the newbies try their hand. I think contesting can be good training for emergency situations, and that's just as important as scoring a lot of points. The points scored last year was dismal by the way.

So, the working group would meet about once a month, maybe more in May and June. We could even do a practice run for a couple of hours in a city park, just to practice teamwork on the setup and teardown. Anyone interested can join the group. Call me at 248-547-2539 or send an e-mail to aa8uu@arrl.net if you would like to help out.

Thanks and 73!

HPARC NETS

HPARC Official Sunday Night 2-meter Phone Net

Every Sunday at 9:00 PM local time on the DART repeater, 146.64 (PL 100), catch up on club news and information, and just to keep in touch. All amateurs are welcome to check in.

Thursday Night Youth Net, 8 PM EST on the DART repeater, via Echolink.

Yacht Net, Saturday night, 8 PM EST. A youth net on the DART repeater, via Echolink. Homepage:

http://yachthams.webstarts.com

N8WYO CW net (Medium speed)

Named in memory of Al N8WYO. The net meets Tuesday night at 8:00 PM on **28.028 MHz** All amateurs are welcome. CW speed fluctuates between 20-25 WPM, but Joe will slow it down if necessary. Listen in at 8 PM sharp!

Wolverine Net

The 75 Meter Wolverine Net meets on 3935 KHz daily at 7:00 PM local time, with pre-net starting at 6:00 PM. You can get details from http://www.wssbn.com/

Oakland County ARPSC

Every Thursday @ 8 pm on 146.90 (PL 100). Hospital Radio Net on the <u>last</u> Thursday of each month @7:30. (W80AK-3 will run packet on 147.56 MHz for those wanting to practice and test their equipment) http://www.arpsc.com/

NTS Traffic Nets

The Southeast Michigan National Traffic System (NTS) net Normally held every night at 10:15 PM local time on the 146.76 (PL 100) repeater. New people are welcome.



AROUND TOWN

HPARC Buddy Breakfast every Saturday @ 9:30 AM (or so)

Jimi's Restaurant, 714 South Washington Ave, Royal Oak (across from OCC). Come for the socializing — we're in the back room. Parking: lots of spaces in Jimi's parking lot, and street parking is free until 11 AM.

Oakland Co. ARPSC Siren Testing, 1st Saturday @ 1 PM Resumes in March.

Macomb Community College Electronic Lab

4th Wednesday of each month from 7-10 PM.
12 Mile & Hayes Rd. (Bldg "S" - Room S135) Extensive collection of equipment to use/learn plus a ham radio station to use and a big 3 element HF Yagi antenna on the roof of the building. Hams are invited from all clubs.

Amateur Radio License Testing

HPARC and the City of Oak Park offer amateur radio license testing on the first Tuesday of even months at the Oak Park, Michigan Community Center (14300 Oak Park Blvd, Oak Park, MI 48237) beginning at 7:30 PM

CLUB APPAREL

HPARC jackets are once again available. These stylish and colorful garments let everyone know you are a proud member of the Hazel Park Amateur Radio Club. For details and pricing contact Barb Hildebrand KD8SAA at barbrahildebrand@yahoo.com.

Details will also be in a future issue of the Zero Beat.



WINDOWS TABLETS FOR HAM RADIO

Editor's note: This article shows how to run desktop ham radio software on an inexpensive tablet computer. The translation from Britain to the USA is simple: £65 = \$100, and tablets like the HP Stream 7 are virtually identical to the Linx.

This is our first look at the bargain **Linx Windows 8.1 7" touchscreen tablet**, and how this could be used for amateur radio...

This is a very cheap, and very capable tablet that runs the full Windows 8.1 operating system – this means that you can potentially run your favourite ham radio PC desktop applications on a low-price tablet device in the field. This opens the potential for PSK31, JT65, WSPR data modes, as well as PC logging apps, SDRs and all sorts.

The price? When discovered, these cost £69 at Staples online – This has now gone up to £79, but is slightly cheaper on Amazon, and £20 cheaper on eBay – At the time of writing, £60!

Linx 7" Tablet Spec:

- 7" touchscreen (8" and 10" also available)
- Windows 8.1 Operating System
- 1.33GHz Intel Atom processor
- 16GB or 32GB Storage; 1GB RAM
- Connectors: Micro USB; HDMI
- Micro SD card
- 1 year's Microsoft Office 365 subscription

Linx 7" Tablet - First look by Nick 2E0DVX

- Yes, it does accept microphone input on a 4-pole jack, so Digimodes a possibility
- No, you can't charge it and use USB at the same time, even with a splitter
- Installed fldigi and sent PSK31 from my Mac to the tablet over built in speakers/mic, works fine
- Managed up to 12xPSK125 multicarrier, and 1xPSK1000 no problem
- It runs SDR# with the RTL-SDR dongle, and I could receive commercial FM & Southend Airport OK (actually very impressed)
- Runs EasyPal SSTV, seems to work ok
 On the USB point, this means CAT control/PTT either
 needs a Bluetooth/serial device, or some form of hardware



Linx tablet running Ham Radio Deluxe

Photo courtesy MOPSX

mod to add a power jack, unless you're happy running on battery power. The case clips together, so haven't looked under the hood yet to see if that's sane.

For me, it doesn't really suit home rig control (so I've ordered a Raspberry Pi B+), but it would be a good toy for portable digimodes, or APRS with a Bluetooth TNC; HDMI out is a nice feature (so you could use it for club night videos/projecting demos).

I'll probably keep it for logging, and it's nice to have the option of Windows (although it's only 32bit OS, despite the 64bit processor). Would be a good machine to program handhelds with, and does work with both FTDI and Prolific cables.

Not as fast or usable as my iPhone, but not noticeably slow either, and 1/10th the price makes it respectable enough. Comparable performance to a cheap Android tablet, and fast enough for SDR/digimodes plus multitasking. So all in all, if you've got a use for it, and will only use the USB port occasionally, I don't think it'll disappoint for the money

More on the Linx Tablet by Pete MOPSX

Essex Ham now has one of these – Pete MOPSX opted for the slightly larger 8 inch version. Here's his findings so far:

This is a very nifty little tablet. It's the full Windows operating system, not a cut-down tablet version, and it's pretty

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WINTER IS SLOW CW SEASON

By Wes Plouff AC8JF

January brings the full brunt of winter to Hazel Park: snow, cold temperature and long nights. The easiest thing to do is stay inside. January also means the "low bands" from 160 to 30 meters come alive earlier in the evening. This includes lots of CW activity.

Hams don't have to be speed demons on a key, or have elaborate stations, to make satisfying CW QSOs. Novice licenses are long gone, but slow speed CW – QRS – lives on. It may take some tuning around, but the most popular slow-speed frequencies are 7100-7125 KHz, and generally about 50 KHz above the lower band edges. Many hams will take the time to slow down for new or rusty fists, and might

be shaking the rust off themselves.

Someone wanting to try CW doesn't even need a "bug" or keyer. A straight key bought at a hamfest will do fine. There are lots of organized activities for slow CW. Here are a few.

ARRL Straight Key Night – Actually a full day, 0000Z to 2359Z on January 1. This is not a contest, though participants are encouraged to send in their logs. The goal is to have enjoyable CW QSOs with other hams on the holiday. See: http://www.arrl.org/straight-key-night.

K3Y Event – January 1 to 31, sponsored by the Straight Key Century Club (SKCC). SKCC members will operate using callsign K3Y/n from all 50 states including KH6 and

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BUNCH OF QRP

Another year has passed... same as before, except....
There have been changes. We have seen the introduction of a very nice EchoIRLP board on the repeater. It has seen much use and increased the usage of the DART repeater. This is good news.

Since the change in the economy, the repeater fell into a period of less propagation than seen in the past. The new IRLP board has helped change that. More importantly though is a renewed attitude by local hams for accessibility and friendliness. When someone calls "Mobile" or "CQ"; more people are willing to talk than in the past. A repeater is meant to be USED and Amateur Radio is a conversation hobby! For some people it is the best means that they have to make friends.

So, have a radio handy and tuned in to the DART as often as you can. If you hear someone calling; please ANSWER! It used to be, that on CB, all one had to do was turn to channel 19 and give a call. It should be that easy on the DART.

Lastly, the EchoIRLP node is a great asset to the repeater. Learn about it and use it. Don't interfere with local usage of the repeater at drive time or established nets. ALWAYS maintain control and close the link if you must leave. If you want to establish a regular Echolink Net connection, have it added to the list in the newsletter as I did last month on page 3 of the newsletter, for example...

- Youth Net Thursday Night (8pm) Echolink *759629
 W5DDL-R
- Yacht Net Saturday Night (8pm) Echolink *481872
 W8PIF-R

With all this increased activity on the DART, occasionally it has actually become crowded! First, everyone has to learn to share again, cool! Second, many have discovered a second area repeater with excellent coverage.

WB8NXP 442.500 + PL 107.2

It is an open repeater run by a great ham which has shared this resources freely with us all. That is a heavy task. IT also has one of the longest running IRLP nodes in the state. The only difference is the DTMF prefix '47' before any node number or '47 73' to close. If you do use this repeater often, please remember that it is not supported by a club and therefore donations are needed to keep it going. For more info on how you can help, visit: http://wb8nxp.org

Finally, I have posted a number of QST articles collected over the years regarding usage of Echolink and IRLP. Read them and pass them on to others. You may find them here: http://cmrk.net/wk1rk then click on PDFs from the left hand menu.

72/73, Phillip N8AYE QRP and Portable

CONTESTS

January 2015

3-4 WW PMC Contest

3-4 ARRL RTTY Roundup

3-4 EUCW 160m Contest

4 Kid's Day Contest

10-11 North American QSO Party, CW

14-18 AWA Linc Cundall Memorial CW Contest

17-18 YL-ISSB QSO Party, SSB

17-18 Hungarian DX Contest

17-18 North American QSO Party, SSB

23-25 CO 160-Meter Contest, CW

24-25 REF Contest, CW

24-25 BARTG RTTY Sprint

24-26 ARRL January VHF Contest

31-1 UBA DX Contest, SSB

February 2015

7 Minnesota QSO Party

7-8 Delaware, Vermont, B.C. QSO Parties

7-8 10-10 Int. Winter Contest, SSB

7-8 Black Sea Cup International

HAMFESTS

01/11/2015 | Hazel Park ARC Swap 8-12

Hazel Park High School, 23400 Hughes, Hazel Park, MI http://hparc.org

Talk-In: 146.640 (PL 100)

Upcoming:

02/15/2015 — Livonia ARC Swap-N-Shop

03/14/2015 — Michigan Crossroads Hamfest and Radio

Swap, Kalamazoo

3/15 TMRA Hamfest, Perrysburg (Toledo), OH

WANT AD

For sale from the estate of Bernie Hildebrand W8NBC: Still have many things to sell, HF and VHF transceivers, microphones, keys and station accessories. We will have a table at the Hazel Park Hamfest. For details please contact Barb Hildebrand at barbrahildebrand@yahoo.com or phone (586) 222-6348.

TABLETS, CONT'D

(Continued from page 5)

impressive, given the price tag. Those not a fan of the sliding tile interface of 8.1 can shell out to the desktop, and effectively you're on a PC. I've had mine for less than 24 hours and have already got it to do the following:

- Control a Yaesu FT857 using Ham Radio Deluxe
- Do some PSK31 using DigiMaster
- Decode JT65 with WSJT
- Send and receive APRS using UI-View
- Run SDR# with the £10 Realtek dongle
- Stream some video to our telly from a NAS drive
- Connect and run a Powerpoint presentation on our overhead projector using HDMI

Very impressed so far!!

Article reprinted by kind permission from the Essex Ham web site, http://www.essexham.co.uk/

SLOW CW, CONT'D

(Continued from page 6)

KL7, as well as Puerto Rico KP4. Affiliated stations on all six continents will also participate. Since the stations are usually on in two-hour shifts, several at a time, it is possible to work all ten call districts in a single day. Most K3Y operators are happy to match CW speeds with their callers. Commemorative QSLs will be available, as well as a printed certificate for a "sweep" of all ten districts, with endorsements for KH6, KL7, KP4 and worldwide contacts. See: http://www.skccgroup.com/k3y/index.php.

Novice Rig Roundup – February 7 to 14. A very relaxed contest, the Roundup will give hams an excuse to fire up those old boat anchors. Operation is on 80, 40, 15, 10 and 2 meters, CW only except that AM is allowed on 2 meters. Contacts are worth more if the station contacted is running under crystal control or is an actual novice rig, built 1978 or earlier and running 45 watts or less RF output. Anyone can participate though. See: http://novicerigroundup.com/

SUNDAY NIGHT NET CHECK-INS

The check-in list will resume in a future issue.

MEETING MINUTES- DECEMBER 2014

The call to order was at 7:30, or thereabout. Jim may have tried earlier but to no avail.

Jim announced that the parking lot next to the building was not for our use except to unload stuff and then park elsewhere. This is quite important.

Next came everybody's introductions.

After that, upgrades. We had two upgrade from tech to general class: KD8ZPX and Ruth, KD8ZUJ. Congratulations to both.

One new licensee, N8NX. And he joined the club as well. One new member, KE4BIO.

Motion to approve both the October and the November minutes, as published in the Zero Beat. Moved by KF8UU , seconded by KD8COJ. Both minutes approved.

The treasurers report: we are into deficit spending but after the swap we will be OK.

Reminders about signing up to help at the swap: Barb

listed the times for ticket sales at the doors that still need people. Also a reminder that people are also needed for the setup, Saturday before, and teardown, after the swap closes.

Jerry, W9NPI announced about the classes coming up, and talked about the classes at Lawrence Tech.

Gerry, K8GT talked about contests in the near future and how much fun they would be, and also about DXpeditions set for the near future.

Since the food was already on hand we ended the business segment of the meeting and ate. The chicken was very good, as were the potatoes and coleslaw. Lots of deserts were on hand and they were very good also.

After the feast some of us put the chairs back on the racks and folded up the tables.

William Ketel N8QVS

KIN: RARE DX IN OUR BACK YARD

By Wes Plouff AC8JF

In a few weeks you will hear pileups on the HF bands for K1N. Behind this innocuous call is the second most wanted DX location in the world, Navassa Island (KP1). It's close enough that K1N's signals will be strong in Michigan.

The Navassa 2015 DXpedition will be quite impressive. A crew of 15 operators will operate for two weeks using 8 stations, most with amplifiers, 6 beam antennas and four verticals. Power will be supplied by generators, solar panels and a wind turbine. K1N will operate on 160 through 6 meters SSB, CW and RTTY.

The dates have not been finalized, but as of New Year's Day, it looks like operations will start around January 30 and last for two weeks.

Navassa is an uninhabited island of just 2 square miles, located between Haiti and Jamaica in the Caribbean Sea. Claimed by the USA in 1857, it has been unused for most of a century, except by Haitian fishermen.

From 1969, hams visited the island every three or four years until 1993, at first using the old KC4 prefix, then later, operating portable KP1. But after the island became a wildlife refuge, the US Fish and Wildlife Service discour-

aged all human visitors. The only dock, at Lulu Bay, was dismantled. So K1N will be the first ham radio operation from KP1 in 22 years, and likely the last for another ten years under F&WS policy.

Putting 15 people on Navassa requires a budget north of \$300,000, or probably more than \$3 per QSO. Much of the money will go toward helicopter transportation, the only reliable way to get onto the island. The DXpedition had to go through a permit process, and was scheduled to make the minimum disruption to birds nesting on the island.

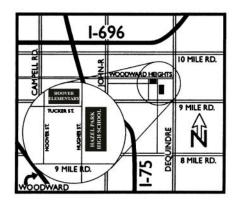
The good news is, according to predictions by K6TU, even a modest station using a multiband vertical antenna should receive K1N at S7 to S9 on all bands. Predictions for good signals are 1400 to 0100Z on 10 through 17 meters, around the clock on 20 meters, and 2200 to 1200Z on 30 through 80 meters.

Crowded frequencies and QRM will be big issues in working K1N, though. Everyone will try to contact this once-in-adecade operation. The DXpedition team has stated it will emphasize giving "all time new one" QSOs to all comers, though. So it should be possible for Hazel Park club members to work K1N. Find more details on the Navassa 2015 DXpedition at http://navassadx.com/.

HAZEL PARK AMATEUR RADIO CLUB 49th ANNUAL HAMFEST

Hazel Park High School - 23400 Hughes - Hazel Park, Michigan 48030

January 11, 2015 - 8:00 AM til 12:00 NOON W8HP - Talk-in 146.640(100hz.pl) D.A.R.T. Repeater Tables \$15.00 TICKETS \$5.00 Plenty of Free Parking Vendor Setup: 6AM WITH PAID ADMISSION







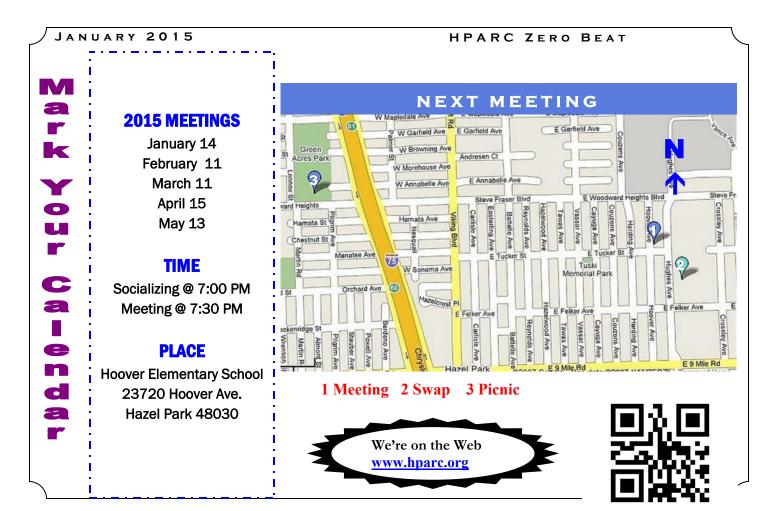
23400 Hughes • Hazel Park, MI

E-mail Address: bernieah@hotmail.com
Phone: Bernie Hildebrand 248-499-2075 Web Site:WWW.HPARC.ORG

Ticket	s and Ta	ble Res	ervation M	Iail-in Coupon
Name _				
Address _				
City _			State	Zip
Phone()		Email	
Tickets	x \$5.00_	Tables _	x \$15.00	Enclosed \$
MAIL TO	: H.P.A.R.C. 1	NC. SWAP,	P.O. BOX 368 H	AZEL PARK, MI 48030
	TO RESE	RVE PREVI	OUS YEAR'S LO	OCATION.

HAZEL PARK AMATEUR RADIO CLUB, P.O. BOX 368, HAZEL PARK, MI 48030 www.hparc.org

TABLE RESERVATIONS MUST BE RECEIVED BY JANUARY 4, 2015





Hazel Park Amateur Radio Club P.O. Box 368 Hazel Park, MI 48030



Scan this QR code to visit the HPARC web site

Please check mailing label — is your membership about to expire?