



The Zero Beat

Volume 30 Issue 5

January 1995

PREZ SEZ "WATCH HPARC IN '95"

President's QRM

What a great time and turn out that we had at our December Holiday Party! I hope that every body had a great time...I know that I did. There were 91 members at the meeting and 52 gifts were passed out. Thanks go out to Jerry (N8UUF) and his family Pat (KB8VWK), and Paula (KB8OEK) for the time and effort that they put into taking care of prizes and the party cake. The January meeting program is still up in the air we are trying to confirm the program put at the time I put this message together.

Don't forget the new nets that the Club is kicking off. The new KidsNet is on Sunday nights at 7:00pm on the DART and a 13wpm CW net meets on 21.125 MHz and down on Tuesday nights. We are also looking for members to handle net control duties on the Monday night CW novice net.

I hope that everybody had a great Holiday Season this year. I know I did. I got to try my new DSP filter and watch for the new brief case that I will be sporting at the next meeting. I hope that everybody has a great new year and the club will continue to grow and prosper in 1995.

Upcoming events that the board will be looking into include operating a major DX contest from the Hazelwood property, and participating in this year's Michigan QSO party. I would like someone to step forward and take on the field day chairperson position this year.

In this issue of the Zero Beat you'll find a handy list of officers and committee heads of different club projects. Sorry if there are a few names missing. Please remind me if there are any errors or omissions. If you have a TNC you can reach my packet mailbox WD8S on 144.97 MHz. Feel free to leave me messages and/or ask me questions via packet or the usual means.

73 de WD8S - Mike

JAN, MEETING DATE, ?

NEW HPARC NETS TAKE OFF!

HPARC Juveniles Found Guilty of Delinquency!!

On January 2, 1995 the first HPARC weekly Kids Net got off to a terrific start, although there were several confirmed reports of late check-ins. The delinquent participants were reminded that the Kids 2 meter Phone Net starts every Sunday at 7:00 PM sharp on the DART at 146.640. Third party traffic is okay, but NO ADULTS please!

Backers Say Hamvention All Wet! Time For Change!

Hamvention '95 is still slated for the weekend of April 28-30 at the HARA Arena in Dayton, but don't bother to book your hotel for '96 just yet. After four decades of fighting the uncertainty of weather conditions in Ohio in late April, ham radio's greatest show on earth is changing its date effective in 1996. That's when the Dayton Hamvention will abandon its traditional last weekend in April for a much warmer and less rain vulnerable mid May date. Starting in 1996, the Dayton Hamvention will be held the third weekend in May. The new schedule puts Hamvention '96 on the weekend of May 17-19. The 1997 Hamvention will be May 16-18 and 1998 will be May 15-17.

CW Novice Net Looking For a Few Good Fists!!

Want to polish up your CW skills and get some OTJ experience in net management? The HPARC novice CW net is looking for volunteers to act as net control on a rotating basis. The net convenes on 21.125 MHz or below at 8:00 p.m. every Monday night. Contact Frank AA8JN if you're willing to lend a hand.

Unclassifieds:

Tower/HF Beam For Sale/Trade:

76 Feet of Rohn 25 Tower with Aircraft Steel Guys, TR44 Rotator and Mosley Classic 33 Beam. You take down. Will lend Gin Pole if needed. All reasonable offers considered. Trade for vintage rig or other equipment also possible. Call Ken K8TFD. (313)-840-0700 (Beeper), (313)-801-0300 (Voice Mail) or (313)-522-8645 (Home).

Antennas For Sale:

Cushcraft Ringo Ranger - 2 Meter
Cushcraft R5 Vertical - 10,12,15, 17, 20 Meters
Wilson SY-33 Beam, 3 Element Tri-Bander, 10, 15, 20 Meters. Call Frank K8DZT at 810-758-4239

Miscellaneous Ham Stuff For Sale

Avanti Scantenna - Outdoor Scanner Antenna (looks like a J-Pole on Steroids) \$15 (new). Yaesu CSC-56 Case - Fits 530 HT w/FNB-26 or FNB-27 battery - \$10. Two Yaesu FNB-26 (7.2V @ 1000Ma) Nicad Batteries - \$30 each. W&W Associates FNB-27 (12V @ 600Ma) Nicad Battery - \$25. EDC-5B Filtered DC adapter - \$13. Yaesu MMB-54 Mobile Bracket (Unopened) - \$13. Call Arlan KB8QLV, (810)-399-6963 Evenings.

A Kids Point Of View

by Alicia Mendelson

It's funny how life can change so quickly. Nearly two years ago, I had a pretty normal life. Then, all of a sudden, Ham Radio came into my life. My dad, KB8RSH, (Who did not have his call) had decided to take classes to get his license. So, just about every Thursday at 7:00, I had to go to Hoover Elementary School in Hazel Park.

Now do not get me wrong, I mean, the V.E.'s were great and everything, but I had not one single interest in Ham Radio. So, while my father and my brothers were learning how to become hams, I was BORED. Because I had no interest, I did not realize exactly how much fun it really was until my dad took me to a Saturday-night get together. There I met Sara N8UJL and Larry KF8WM who convinced me that ham radio really was fun.

I learned what Field Day was about, what happens at Field Day, and that even if you do not have your license you can participate. At Field Day you can help out in the kitchen, in "shacks," or just plain help. Everybody needs help. You can help them log, set-up, tear-down,

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make contacts, and do countless other things. It does not matter where or when, they need it. If they do not need it, stand around and give encouragement and praise. At Field Day, I sold 50/50 raffle tickets with my mom while we walked around, and was named Official Gopher. This year we will be attending Hazel Parks Field Day. I hope I have just as much fun this year as last at Field Day.

At swaps, it's even more fun because you can walk around by yourself and buy things, or you can sit behind a table and sell things. Also, at every swap there is a raffle. Swaps, Field Day, and Get-togethers are fun in every way possible. Even if it's work, it can be fun. Also there have been a lot of people I have heard on the radio and met that are pretty cool. Some of the many are, Christine N8WIQ, Walt WB8E, Frank AA8JN, and so on.

I think that the only set-back to Amateur Radio is that kids who have their license are almost never on the radio! Where are you guys? We kids need to stick up for each other on the radio! I am glad to see that there finally is a Kids Net. For those of you who do not know about it yet, there is a kids net at 7 PM on the DART (146.640) every Sunday. It seems as though it will be a good thing for the club, because you should have a lot of check-ins. (No adults, please.) Since it will be run and operated by kids, we should have a blast.

Everybody should know that Amateur Radio is fun, call or no-call. I am only a kid, so remember, this is coming from a ten year-olds point of view, so you may feel differently. You may feel radio, in any form is stupid, or you may feel it is great, no matter what is involved. But still, if you feel it is stupid, why are you involved in it?

Think about it. Maybe you will find an answer. Maybe not. Give it a try. I did, but I do not have a license, because I do not feel I need it. Maybe you do. Have faith in yourself. Hey, you may not have your license, but you may find yourself picking up some stuff you hear on the radio! I know I certainly have.

73's, Alicia

VE Testing Via Phone!!

If you can't make the bi-monthly HPARC VE session on January 26th, 7:30 pm at Hoover Elementary, try giving the ARRL VEC staff a call at 1-800-927-7538 between 8:00am and 5:00 pm. They have up-to-date schedules on all ARRL VE testing sessions in the United States.

The Swap Hound

Sleazy fine print: Swap Hound listings are based on seismic activity recorded at Zug Island, listings we find lining bird cages, and discarded fortune cookie slips we lift from other diners tables at the Won Hong Lo Inn. Errors are guaranteed to creep in on a regular basis. Before wasting your gas and time, double check with a credible source.

SUN JAN 8 SOUTH BEND, IN - Michiana Valley Hamfest Association. South Bend Hamfest & Computer Expo. Century Center Convention Hall. Tables \$5-\$20. Admission - \$4 advanced, \$5 at door. Talk-in 145.29. Call Denny at (219) 291-0253 for info.

SUN JAN 22 SOUTHFIELD, MI - Southfield High School ARC Swap & Shop. Southfield High School, 24675 Lahser Rd. Tables - \$17, Admission - \$5. (810) 746-8853 for info.

SUN FEB 26 DEARBORN, MI - Livonia Amateur Radio Club Swap-N-Shop. Dearborn Civic Center. VE exams by appointment only. Admission \$5. Talk-in 145.350. Call (313) 261-5486 for info.

SAT MAR 18 MARSHALL, MI - Michigan Crossroads Hamfest. Marshal High School. Tables - \$4 per 4 ft table. Admission - \$3 advanced, \$4 at door. (616) 979-3433 for info. Talk-in 146.66 & 146.52.

SUN MAR 19 MAUMEE, OH - Toledo Mobile Radio Association. TMRA Hamfest. Lucas County Recreation Center. Tables - \$15-\$25. Admission - \$4 advanced, \$5 at door. (419) 259-5473. Talk-in 147.87.

SUN APR 9 GROSSE POINTE, MI - Southeast Michigan ARA Swap & Shop. Grosse Pointe North High School. Tables - \$10. Trunk Sale - \$5. Admission - \$3 advanced, \$4 at door. VE Testing. Talk-in on 146.74. Call (313) 886-6354 for more info.

Minutes Of 12/14/94 HPARC Meeting

by KE8QT - HPARC Secretary & Bon' Vivant

Meeting commenced 7:50 P.M. with welcome and introductions. Swap results announced by Swap Chairman Lee, N8LTM. Recognition by Mike, WD8S, of fine job done for Swap by Swap Chairman Lee, N8LTM and assistants Tom, N8TMQ and Lee, N8ULW. Bud, N8ZDI, recovery report given y Arlan, KB8QLV. Motion by N8WS to accept minutes of the November, 1994 meeting. Seconded by K8VDA. Passed. Treasurer's report by K8TRF. Motion to accept by K8DZT; seconded

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by KA8PEH. Passed. Announcement that as of 12/18/94, HPARC is incorporated. Announcement that the DART has accepted ownership by HPARC. DF equipment has been ordered. Budget is to be brought up at the February, 1995 meeting. Future club meeting programs discussed. Acceptance and welcome of 4 new club members. Notice by N8WS of T-shirt availability. Reminder by K8DZT of club jacket orders. Presentation to Jim, N8IVP of 1st prize from the Swap drawing. Broke at 8:20 for refreshments, furnished and set up by the Ciesielskis; resumed at 9 P.M. Reminder that DART 440 MHZ repeater is on the air and working well. Notice that Kid Net commences 7 P.M. 1/1/95 on the DART 2-meter repeater. Club drawing won by Frank, K8DZT. QSL card winners announced. Gift distribution by the Ciesielskis. Notice of 13 wpm Tuesday night CW net, 8 P.M., 21.125 MHZ. Meeting adjourned 9:45 P.M.

Secretary's note: Many thanks to the Ciesielskis, Pat, Paula and Jerry, for their time and effort in making our December program such a success and so enjoyable.

Radio Shack DSP-40 Noise Reduction System

Richard Allen W5SXD

Last summer I purchased the new Radio Shack DSP-40 Noise Reduction System. The Radio Shack part number is 21-453 and the price was \$79.00. The unit is packaged in a black plastic case 4 1/2 inches wide, 2 inches high, and about 7 inches deep. The front panel controls and indicators are small but easy to use. There is an output volume control/power switch and a red power LED. A switch labeled DSP switches the unit in and out of circuit and has a green LED which indicates an input signal; it flashes slightly when the input level, controlled by your radio, is set properly. A three position FILTER switch selects NR, SSB, or CW, the three operation modes. A three position BANDWIDTH switch selects NARROW, MEDIUM, or WIDE. A 1/4 inch phone plug disables the internal speaker when headphones are plugged in. Unfortunately, the phone jack does not provide output to both sides of stereo phones and the output impedance did not match my Sennheiser audio headphones well. The internal speaker works fairly well but does not sound as good as the internal speaker in my Kenwood TS-680.

The back panel has a 1/8 inch input jack, a 1/8 inch external speaker jack, and a standard coaxial power connector that requires 11-15 volts DC at 1 Amp maximum. I did not measure the operating current, but

since the specified output power is 6 watts into 8 ohms, it probably can use most of that lonely amp. A fused power cable and double ended 1/8 inch audio cable is provided along with a mobile mounting bracket. The power must be applied for any output, even when the DSP is switched out.

The following specifications were taken directly from the ten page owner's manual; my measured values are mentioned later.

FACTORY SPECS:

Frequency Response

DSP Out Mode 300 to 3000 Hz
 NR Mode
 WIDE Position Bandwidth 200 - 2950 Hz
 MED Position Bandwidth 200 - 2500 Hz
 NARROW Position Bandwidth.. 200 - 2000 Hz

CW Mode

WIDE Position Bandwidth 269 - 1231 Hz
 MED Position Bandwidth 469 - 1031 Hz
 NARROW Position Bandwidth .. 597 - 903 Hz

SSB Mode

WIDE Position Bandwidth 300 - 3000 Hz
 MED Position Bandwidth 500 - 2600 Hz
 NARROW Position Bandwidth . 800 - 2000 Hz
 Total Harmonic Distortion 1.0% (Typical)
 Signal-to-Noise Ratio 55 dB (Typical)

Audio Input Level 3.0 Volt Peak-to-Peak (Max.)
 DC 12V Input 11-15 VDC, 1.0 A (Max.)
 EXT SP (External Speaker Output) 8 Ohms, 8 Watts
 Audio Output Power ..10 Watts (Typical, 10% THD)
 Heterodyne Rejection (SSB/NR Mode) . 40 dB (Max.)
 Noise Reduction (NR Mode) 20 dB (Typical)
 Dimensions 1 15/16 x 4 9/16 x 7 1/16 Inches
 Weight 1 lb, 4 ounces

I design DSP based systems for a living and had planned to build my own audio processor and when the DSP-40 came out at 1/3 the price of the other available units, I had to try it out! I was hoping that it would use a device that I was familiar with and that the software would be in a socketed PROM. Before even powering the device for the first time, I had the covers off and discovered that both sides of the paper-epoxy printed circuit board were covered with shielding boxes. From past experience with high-speed computers and radio noise, I guess this must have been needed, but all I could tell about the circuitry is that it is probably a

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device with it's code memory built in and unchangeable. The shielding appears to do the job; my old PK-80 TNC generates enough crud to mask out anything that the DSP-40 generates. I ran tests on the filters with a DSP based audio sweep generator and spectrum analyzer that I designed at work. It consists of a single DSP with 14 bit analog/digital and digital to analog converters running at a 9600 Hz sample rate.

The signal to noise ratio appears to be about as the specifications indicate. All of the filters appear to meet the specified values and are very flat across their passbands. There is a lot of ripple in the high stop-band but it is well below the specified signal to noise ratio. The CW filters have very nice skirts as do the SSB filters. The NR narrow filters are not quite as good but the DSP probably doesn't have time to perform it's noise reduction algorithms and while also doing a more complicated filter.

The automatic notch filter works well on pure carriers. As the frequency of the signal changes, the notch tracks a bit later so you can briefly hear the carrier until the DSP catches up. CW signals in the SSB or NR mode sound like key clicks! The notch is disabled when the DSP-40 is in the CW mode. Unlike analog notch filters, the DSP-40 does not do well on signals that are not fairly loud and very pure. A signal with power line hum does not get rejected and computer noise and TV sync noise are passed thru untouched. The NR mode gives a little action on pulse noise but not as good as the noise blanker in the TS-680. As I operate mostly 50 MHz and above, the notch filter is rarely useful.

If you all ready own an HF rig that has 500HZ CW filters and passband tuning, the Radio Shacks audio filters are redundant and offer less flexibility because their frequencies are fixed. On the other hand, if your HF rig doesn't have any 500 Hz CW or SSB filters built in, the DSP-40 offers good value for the ham on a budget.

73, Richard Allen W5SXD

Green Eggs and Ham!

Well, the eggs used to be green, but we stopped eating at that restaurant. Even if your handle is not "Sam I Am", you're welcome at HPARCs weekly morning breakfast. Consumption of mass quantities of carbohydrates begins at 7:00am on Friday mornings at the Ram's Horn, just north of 13 Mile on the west side of Woodward Avenue.

Hazel Park Amateur Radio Club**President**

WD8S - Mike Van Buren
2263 Shevlin
Ferndale, Mich. 48220
399-7970

First Vice President

AA8KR - Phil Ode
4508 Whisper Way
Troy, Mich 48098
(810) 641-9723

Second Vice President

KA8WBQ - Bruce Merrill
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Berkley, Mich. 48072
(810) 398-6496

Treasurer

K8TRF - Dave Benham
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Secretary

KE8QT - Jim Bunting
162 Hillboro
Bloomfield Hills, MI 48301
(810) 645-2704

Parliamentarian

AA8JN - Frank Cunningham
21535 Wendell
48301 Mt. Clemens, Mich. 48043
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Director

KF8KS - Steve Harris
88 Duncan
Troy, Mich. 48098
(810) 689-4048

Club Call Trustee

KI8V - Verline Ferris
Hazel Park, Mich. 48030

The Zero Beat**Board of Directors Meeting Schedule:**

Jan 9, 1995
Jan. 30, 1995
Feb. 27, 1995
April 3, 1995
May 1, 1995
June 5, 1995

HPARC Chairpersons

Membership Chairman & Badges - AA8KR Phil
VE Team Co-Chairs - WD8S Mike N8SWQ Bill
Novice Classes - N8UUF, KA8NDY, WB8YRV
Zero Beat Editor - KB8QLV Arlan
Zero Beat Mailing Crew - KA8NCH, WB80SZ, KB8NIH
DART Board of Directors- WD8S, NR8D, WD8JWM,
KA8PHP, KB8QLV
DART Repeater Trustees - 2m N8MLM 440 N8EQD
Kids Net Manager - KB8TVE Joe
Club Refreshments - K8DZT Frank
Club Tee Shirts - N8UUS Phil
ARRL Public Information Officers - AA8EG, WB8TIV
Club Equipment Custodians - KF8KS, WB8ATZ
County Liaison - KA8PEH
Dayton Hamvention Trip Chairman - WD8S
Club Jackets - K8DZT Frank
1995 Field Day Chair - Position Open!!!!
Rocking Chair Net Manager - WB80SZ
Club HF Awards Manager - KB8NKD Dick
Club VHF Awards Manager - KB8HSR Tim
ARRL Techincal Coordinator - AA8EG
1995 Banquet Chariman - WB8JWM
1995 Swap n Shop - N8TMQ
Club Repeaters - DART (Detroit Area Repeater Team) Sponsor Hazel Park Amateur Radio Club
2 Meters - 146.640 (-) 440 Mhz - 443.225 (+)
2 Meter HPARC Net- Sundays 9:p.m. 146.640- DART
15 meter CW Novice Net 8 p.m. Mondays 21.125
15 meter CW Net 8:00 p.m. Tuesdays 21.125
Kids 2 meter Phone Sundays 7:00 p.m. 146.640- DART

**Hazel Park Amateur Radio Club
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