

The Zero Beat

The Official Publication of the Hazel Park Amateur Radio Club

4/96

News For and About the HPARC

- ... but the Fool on the Hill

The President Speaks. . .

- QARM de Mike WD8S

The April meeting will be held on the 17th due to the school spring break. The membership meeting will be packed full of interesting things. First, Joel W8HIU will be our guest speaker and he will speak about the Oakland County Amateur Radio Public Service Corps and the Emergency Operations Center. Also the club has been asked to write up the script for the Fall Simulated Emergency Test. I am sure we will have questions for Joel on this.

Hazel Park
Amateur Radio Club
An ARRL Special Service Club

Board of Directors

President - WD8S, Mike
1st Vice President - AA8KR, Phil
2nd Vice President - KG8QT, Marty
Secretary - KE8QT, Jim
Treasurer - K8TRF, Dave
Director - N8TMQ, Tom
Parliamentarian - N8ZLK, Steve

Repeaters

146.640 (-) N8MLM
443.225(+) N8EQD

Nets

146.640 7:00 pm Sun - Kids 146.640
9:00 pm Sun - General
21.125 8:00 pm Mon - CW
21.125 8:00 pm Tue - CW

The Zero Beat Staff

Editing - N8QMD, Jim
Printing - WD8S, Mike
Circulation - KA8NCH, Ed

The Nominating Committee should be in contact with all the members during the month on March and April. The Committee are members selected by the Board are KE8QT Jim, AA8JN Frank, KC8BGO Marilyn, KG8UC Phil, KA8QFP Al, N8HFM Bill, and last but not least, Win N8RLM. These members are going to put a list of Official Nominating will take place during the meeting. Please help this committee out in their job and help them with the selection process.

After the talk that we heard from George Race from the ARRL, I will bring to the Board Meeting some ideas that the Club might want consider to keep the members informed about ARRL activities.

Field Day and the annual Banquet will be the topic at the board meeting to be held on April 1st.

The Oak Apple Run is coming, so mark your calendars for this annual event. It will be held on June 1 this year. If you have not helped with this in the past, it is a great public service event and we learn a lot about emergency communications. That, and it's fun for all.

73
Mike Van Buren WD8S

Swaps, Wants, For Sale

- Let's make a deal.

Notice: Don't believe everything that you read here. Listings are found on the street, so be sure to practice safe swap. Errors will occur on a random basis. Objects in your

mirror may be closer than they appear.

Saturday, April 20, Muskegon, MI.
Muskegon County Hamfest. 146.82
talk-in.

Sunday, April 21, St. Joseph, MI. 37th
annual Blossomland ARC Swap.
146.82 talk-in.

Sunday, April 28. Grosse Pointe
Woods. 38th annual SEMARA swap
at Grosse Pointe North High School.
146.74 talk-in.

Public Service

- The Service part. . .

Every Night at 10:15 pm. South
Eastern Michigan Traffic Net
(SEMTN) meets to pass National
Traffic System (NTS) Traffic. Check
in on the Edison Repeater, 145.33 (-)
whether you have traffic or not. This
is also a Training Net, so there tips
and techniques to be learned.

Every Wednesday at 9:00 p.m.
Oakland County Amateur Radio
Public Service Corps (ARPC) net on
the SMART, 147.140 (+). All are
invited to check in.

MS Super Cities Walk. Saturday,
April 14. Call Al KA8PEH to
volunteer. Our club has helped in the
past at Seaholm High School, and
Christine N8WIQ has done an
exemplary job as Net Control.

Oak Apple Run. Saturday, June 1,
1996. HPARC's annual participation
in the 19th Oak Apple Run. This will
be the 9th year that the Club
participates in this Public Service.

Requirements are that you have a hand-held radio with enough battery capacity to last 3 hours. Those who do not have HTs may support other amateurs.

Your first responsibility will be to notify the medical teams when their help is needed, such as a runner down and requiring assistance. Other support is to report unusual situations so that Police or other assistance can be dispatched. All reporting is done through a Net Control.

There will be a pre-race meeting Friday, May 31st at 6:30 p.m., in the basement of the First United Methodist Church, 320 West 7th St., between Washington and Lafayette. You must attend this meeting to receive your instructions and assignment.

There will be a sign-up sheet at the April and May meetings. If you have any questions, call Mike WD8S, at 810.399.7970, or Ed KA8NCH, at 810.541.3121.

VE Tests

- Be all you can be.

HPARC VE testing:
Call Mike WD8S at 810.399.7970 or Bill N8SWQ at 313.533.5962.
May 30, 1996

Oak Park VE testing:
Call Jeff N8WRY at 810.642.3608
June 4, 1996.

Motor City Radio Club VE testing:
Call 313.676.6248
April 24, 1996
May 11, 1996
July 20, 1996
September 14, 1996
November 9, 1996
December 11, 1996

Marsupial Friend, or Stew?

- Find out on the medium speed CW net.

So it seemed like a normal day; there I was driving to work, talking on my favorite Net, Drive Time on the DART.

As I pulled off I-275 at an unfamiliar exit, I noticed some fresh road kill, which was a rather large opossum. Everyone on the net agreed that this death should not go unnoticed, and good buddy Jim KE8QT chimed in that I could set up a cook fire near this exit. I think his time with the railroad must go back to the thirties, because Jim knew of a campsite that must have been one of those old hobo camps.

It was great campsite for cooking, with a stream nearby. Jim couldn't make it to the feast, but Steve KF8KS did stop by in time for lunch and a little whittling. By the time he made the trip in from Ann Arbor the fire was just right, and I had the carcass on the spit. I found a harmonica, but it was B-flat, and neither I nor Steve knew any songs in that key. So, Steve hung his suit coat up on a nearby branch and we had a feast.

Lots of folks stopped by, but Tony WD7G was not one of them. I'm sure that's why one night on the CW net he asked if I happened to get any opossum on my recent trip to Indy. What a coincidence then that my son, Simon, spotted this critter in my backyard here in Madison Heights just as I got back from Indy. It was kinda late that night when I pulled into the driveway, and there he was in the tree. Why should I to go all the way to Indy, when I can get my opossum right here at home? I hear Christine also found one at her place.

For more of this babble don't miss the morning drive time "I wanna talk but this traffic is tremendous, and I'm not awake yet" Net, better known as the Babble net!

Convex Parabolic Propagation, or the Self-Reflective Cue-Ball Theorem

- by Steve KB8VWP

The mathematical properties of the parabola are well known, but when you think of a parabola, you probably think of the concave, or dish-shaped side. What you probably don't consider, and has not been as well researched or documented, are the potential uses of the convex side.

HTs are popular, but their limits are well known. Their biggest limitation is their relatively short range. A substantial increase in range can be obtained with no actual modification to the rig itself. All that is required is a good working knowledge and resulting practical application of the theory of Reverse Parabolic Propagation, commonly known in Europe as Bullocks' Theorem, named for the late English mathematician Sir Walter Bullocks.

Here in the United States this rather obtuse and lengthy theorem been shortened to exclude some of the more esoteric components, and is now better known as Curly's Theorem, named for the late Curly Howard. Let me assure you that, while this is makes for rather fascinating study, it is hardly hair-raising, and there are no blinding moments of brilliance. Higher mathematics or algebra are not necessary to achieve a complete understanding this simple, yet eloquent theorem.

Using an HT normally results in RF ground wave propagation. When the HT is held properly, with the antenna close to, if not against, the head, the apex of the cranium is where the RF radiation reaches its critical take-off angle. If this angle is high enough, it results in a sky-wave propagation mode, greatly increasing transmission

range through the mode commonly known as skip, which is a short form for skipping a head..

All Amateurs naturally possess a reflecting surface, in the shape of this reverse parabola, which serves to enhance the take-off angle and thus propagation.

RF can be and frequently is blocked by obstacles in the line-of-sight, and obstacles nearer the transmitter perform a disproportionate amount of the blocking. Ergo, to minimize attenuation this reflective path must be maintained as obstacle-free as possible, which implies a clear, uncluttered and unfettered cranium.

While this is indeed good news for the "follically-challenged" Amateur, those with a full head of hair who suffer from less-than-ideal HT range will soon find that this is a self-correcting situation; let me explain further.

Those who possess a full head of hair will, by virtue of transmitting in the approved manner, be soon relieved of this burden from exposure to RF energy, thus eliminating the source of impedance.

In summary; Rid the Rug! Go Natural! Ditch the Fluff! Don't comb those last remaining hairs over the top, think about the dB loss!

A Tall Antenna Story

- by Bill Hart, KC1TX

An electrical engineer friend told me this story the other evening. During World War II he joined the U.S. Army. After initial training he was given the option of working in electricity, or radio. He knew that electricians had to climb power line poles, so, having no head for heights, he opted for radio. Not so easy to avoid the heights, though: he found himself stationed at some far distant station with a huge Rhombic antenna

mounted on eighty-foot poles. He tried to keep away from them, but finally it had to come: one of the insulators broke and had to be replaced; so, after gritting his teeth and crossing his fingers, he volunteered for the replacement job. Eighty feet was somewhat taller than the average telegraph pole, but if he didn't defeat his fear soon he might never manage it. The others, who had done this work before, were most solicitous, offering help and equipment. One even loaned him a new leather belt he had just broken in.

They isolated the antenna from the transmitter, and he put on his gear. His friends stood around to watch and offer encouragement. To climb a pole requires a large leather belt to hold you loosely to the pole, and heavy, sharp, spikes on your boots. You lean back into the belt, triangulated like a woodpecker on its tail. To climb you move your feet up one at a time, lean into the pole a bit, and hitch up the belt. To come down, you can reverse the process, but the more experienced take it faster, withdrawing both feet at once and jamming their spikes into the wood before their speed rises too much. Some could come down a pole as much as twelve feet at a jump - and, in emergencies, a quick descent was sometimes essential.

The poles were quite thin, but their wood was unusually dense and it took a real kick to get the spikes to grip. He practiced a couple of times at lower heights to get over the worst of his fear, then kept his gaze straight ahead and went to the top. The view was fantastic and he was fine - as long as he did not look down. Also, he did not understand why the horizon was rocking from side to side, until he realized that the pole was swaying with his weight.

There were two cross-bars at the top: the upper one supported the insulators for the twinned radiator wires, and the lower one acted as a place to sit while working on the antenna. Although he knew the power was off, he felt a little apprehensive about accidentally

touching the wires with his shoulders as he got into place. He was just starting to get one leg over the lower bar, when he saw a Air Force sergeant he knew coming over the hill in front. As soon as the sergeant saw our hero, he shouted "Get down! Those wires are live! and started to run towards the pole. My friend felt emergency techniques were called for. He was scared enough swaying eighty feet above ground, without having untold RF voltages searing his body as well, so he pulled out his spikes and left - quickly.

I am not sure how many jumps it took him, but he must have been going at some speed, because when he jammed his feet into the wood only two or three feet above the ground, his body was traveling so fast that it did not stop quite as expected. When the dust settled, we saw that he was jammed tight into the belt, with his knees up to his chin, unable to breathe at all. Everyone crowded round. "Cut the belt!" said one, and two or three pulled out their knives, but the new leather was much too hard. The group leader, more experienced, said "No - cut the stitches around the buckle! and did so in a few strokes. The belt sprang away, and so did our hero, who passed out from lack of oxygen just as he fell backwards onto the ground. The entire group turned on the sergeant, hurling tools and imprecations at him as he left as quickly as he had arrived, muttering "Well, at least he didn't get fried!" as he fled. History does not relate whether my friend was ever expected to work on the Rhombic again...

Don't believe everything you fear.

(relayed by Pete Kemp, KZ1Z)

Calendar

April 14, 1996	MS Super Cities Walk-a-Thon
April 17, 1996	HPARC General Membership Meeting.
April 28, 1996	SEMARA Swap.
May 4, 1996	Early Warning Siren Test.
May 8, 1996	HPARC General Membership Meeting.
May 17,18 & 19	DAYTON HAMFEST!
May 27, 1996	Memorial Day
May 31, 1996	Oak Apple Run pre-race meeting.
June 1, 1996	Oak Apple Run
June 1, 1996	Early Warning Siren Test (following Oak Apple Run)
June 12, 1996	HPARC General Membership Meeting.
June 14, 1996	HPARC Annual Dinner.
June 14, 1996	Flag Day.
June 22 & 23	Field Day!

Hazel Park Amateur Radio Club
PO Box 368
Hazel Park MI 48030