



The Zero Beat

Volume 30 Issue 7

March 1995

HPARC PREZ ENDORSES BUSSING!

FEELS LIKE STORMY WEATHER...

President's QRM

Spring is just around the corner and so is antenna season, so get your plans together and let other members of the club know that you need help putting wire up in the air. Planning an Antenna Party can be fun, you can learn lots of tips of the trade, and the fellowship and experiences are priceless. So put some pop on ice, a pot of chili on the stove, and let the good times begin.

At the March 8th membership meeting of the Hazel Park Amateur Radio Club, the program for the evening will be presented by Buck N8CQA from the Michigan QRP Club. He will discuss the challenges and rewards of making contacts with low power and discuss several QRP organizations and what they offer.

Get out your calendars and take note of the following dates: The annual HPARC banquet will be held on June 14 at the Stephen Haus. Don't forget Field Day on June 24th and 25th at the Hazelwood Property near Mt. Holly. Our Field Day Co-chairs KB8RSH and KB8RXK are off and running with preparations for the event. If you can volunteer to help or want to offer any advice, see Dave or Marty at the meeting. The Board of Directors met on February 27th to discuss finalizing the incorporation of the club with our legal counsel.

Don't forget the Dayton HamVention, to be held the weekend on April 28-30. The club rooms are all booked at this time, but if you are interested in going for one day only, the Milford Amateur Radio Club is sponsoring a bus trip for Saturday April 29th. Their bus will leave the Detroit area at 5:00 am and will depart from Dayton at 5:30 pm. The cost for the bus is \$40 per person. For more information contact Neil WA2WIM at (313) 878-2186.

Every one have a great month! 73s
Mike WD8S.

The OCARPSC Report

by Barry Kaufman WD8JWM

Starting this March, siren testing begins for Oakland County. It's time for weather spotters to review the material and information received in past sky-warn classes, paying particular attention to safety related items. Your personal safety is more important than your observations. Storms can be dangerous, so be sure you know the safe way to deal with severe weather.

When spotting out in the field, it's far better to travel in pairs than alone. This allows the driver to focus on the road, leaving the passenger to handle communications and general observation. It also provides two pair of eyes when the vehicle is stopped in position. As a spotter, be aware of the local environment at all times. If you can, keep a two or three mile buffer zone between you and severe weather. Watch your back! Bad weather can sneak up from behind in a matter of minutes. Always have an escape route available in case a violent storm invades your buffer zone. You're far more likely to be killed by lightning than a tornado. Don't get out of the car to improve your observations, and don't park under tall trees.

Spotting at night is difficult since lightning flashes are often the only illumination available to spot a funnel or wall cloud. Pay close attention to sound...it can save your life. Listen for loud roars that sound like an approaching train. If you think there is a twister in range, search the horizon for bright flashes of light as the tornado destroys power lines and transformers.

If you want to learn more about weather spotting, attend the free classes offered by the Oakland County Amateur Radio Public Service Corps. Class information can be obtained by listening to the Wednesday night ARPSC NET on 147.14 MHz at 8:00 PM. An advanced SkyWarn class is planned for April 29, 1995 at the EOC in Pontiac.

Sitting Ducks

by Jim Wilson - W4MWT

Soon after my 12th birthday, my father took me on my first duck hunting trip. As we topped a small hill overlooking the lake, I was surprised to see hundreds of ducks sitting calmly in the shallow water. I remarked how 'easy' this duck hunting would be! Dad quickly pointed out that shooting ducks on the pond was poor sportsmanship - we would shoot only at flying ducks.

In the news recently was an uproar over surplus zoo animals being sold for use in 'penned hunts' at game farms. Tame animals, in pens, being hunted as trophy animals - an extreme example of poor sportsmanship! You may also remember the story of the entrant in the New York Marathon that rode the subway to a 'win'. It seems that no matter what the sport, there are those that will try to compete the 'easy' way.

The introduction to the DXCC Rules indicates that membership in the ARRL DX Century Club has been, since its beginning, '...The mark of distinction among radio amateurs the world over. The high standards of DXCC are intensely defended and supported by its membership....'. This same paragraph of the introduction also points out that '... the rules were progressively changed to maintain a competitive environment ... ' (emphasis mine).

I think it's time we did some more 'intense defending' of DXCC to try to restore some of its lost prestige! Too many are now trying to compete the easy way - by adding to their country count through participation in a DXCC 'penned hunt'. I mean, of course, 'DX nets' and/or list operations.

Lists and 'DX nets' aren't about DX or helping dxers. They are about control and ego. The 'RF impotent' and low-skilled operators who participate are 'sheep' in the eyes of the controllers. They are there to feed the controller's. If the list takers and nco's were interested in DX and 'helping' they would be in the pileups themselves providing a 'sterling' example of good dx operating technique.

These 'controllers' run up and down the band trying to 'snare' DX for their particular 'net', even trying to drag them away from a pileup. They try to get 'exclusive' rights to a DX station and discourage them from working anyone who is not a 'net member'. Some of the

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nets even require a membership number to check-in ... an exclusive 'on the air DX Club'.

These 'DX Nets' also encourage illegal operation by asking callers to use only the last two letters of their call or check in by number - not likely considered proper identification in any country. Some net participants are also self-appointed police. They guard the frequency, including 5 KHz up and 5 KHz down, and inform everyone who dares infringe that the frequency is 'in use' or just a very blatant and demanding 'STAND BY!' or 'QSY QSY!', as though the 'net' is entitled to an absolutely clear frequency.

If you are adding to your country count through list/net participation, you are a 'subway rider'! It is poor sportsmanship and I think it degrades the DXCC award. I firmly believe that contacts made on third party lists/nets should not count for DXCC credit. As pointed out by Gary Grant, NM7G, in the January, 1995, issue of QST, page 97, the DXCC rules call for 'two way communication' - not 3, not 4, not multi-way. Listen to some of the 'good contacts' that take place on these lists/nets....

(NCO): 'Tango Xray, make your call...'

(Tango Xray): 'What dee ex is on frequency?'

(NCO): 'We have PY2FF with us... pay attention, Tango Xray'

(Tango Xray): 'Papa Yankee Two Frisbee Flicker this is Kilo Echo Four Take Two XLax - when last heard you were two by two, onetwoonetwo, two by two, overover..'

(NCO): 'PY2FF, did you copy the station that just called you?'

(PY2FF): 'Sorry, I couldn't hear anyone calling.'

(NCO): 'Tango Xray, call him again - use standard phonetics'

(Tango Xray repeats call - uses 'standard phonetics')

(NCO): 'Did you hear the station calling you that time, Snookie?'

(PY2FF): 'KE4TX, you are three by three, thirty three - what is my report?'

(NCO): 'TANGO XRAY, REPEAT THE REPORT AND YOUR CALL - SNOOKIE MISSED THE FIRST TANGO IN YOUR SUFFIX!'

.... after about ten minutes of this kind of nonsense, the NCO blesses the contact with the all important 'good contact' statement and tells Tango Xray to put it in the log. (I just made up the calls mentioned above, I apologize if there is a real PY2FF or KE4TTX.)

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These aren't contacts - they aren't even a good hoax! They are certainly less sportsmanlike than shooting ducks on the pond! The only way to get rid of the list lizard syndrome is to have the DXCC rules modified to state categorically that contacts made on third party lists/nets are not valid for DXCC credit!

We do not need a Net Control to decide who is allowed to work DX. We do not need a Net Control to pass our call to the DX station. We do not need a Net Control to pass judgment on whether or not it was a 'good contact'. We do not need to telephone Net Control and say 'put me on the list'. We do not need to suck-up to Net Control to ensure future 'good contacts'.

We do need good, healthy competition back in the DXCC Award program - untainted by 'last two', 'please copy', 'when last heard', 'back to net' and 'good contact'!

I urge you, all of you, to write the ARRL Awards Committee and ask that the DXCC Rules be changed to specifically exclude contacts made with third party involvement such as we find on 'DX Nets' and lists. There will be no problem with 'enforcing' the rule ... the nets/lists will disappear overnight! Unfortunately, the 'former' net control operators will still be there, complaining at length about the new rule and trying to figure out a new way to 'control' DX.

How I Spent My Winter Vacation

Ron Cole KB8PNS

This past year I got into packet radio when I bought a TNC, a PacComm TNC-NB96. Rather than buy it from a dealer or at a swap, I acquired the unit directly from the manufacturer, located in Tampa, Florida. When I first connected the TNC I had problems with it keying the transceiver. I called PacComm and they requested the unit be sent back. Buying a new piece of gear and not having it work is never pleasant, but I can not speak highly enough of the help, support and response I received from PacComm.

For winter vacation we usually go to Sarasota, Florida, and this year was no exception. I decided to visit PacComm personally, since Sarasota is not too far from Tampa. Their building was in a small industrial part of town, close to a fairly large shopping mall (great for dropping off the kids and XYL).

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Doug from Tech Support met me at the door, and introduced me to Linda, who was very nice and took plenty of time out from her day to show me the whole operation. We started in her area (the order department) where there was a line of cabinets with one of everything they ever made...kind of the PacComm Museum.

She showed me the parts cribs in the staging area of the factory and then we moved on to watch the assembly process. It was real interesting to see the people building the equipment that I use in the shack. They had four people in this area but there was room for about 10. The automated machines they have that handle those tiny surface mount devices found in most modern gear were fascinating!

Next we visited the engineering department. There were a half dozen techs there working on developing circuits for new products and working on mods for current ones. I also was introduced to Bob, the technician who had fixed my TNC. I was surprised to learn that they do everything, in-house, except painting. They even showed me some of their custom work. For example, if you want a TNC built into your laptop computer, they will do it!

If you go on vacation to a city that has a supplier or manufacturer of ham equipment don't miss the opportunity to call and ask if you can visit. It sure was interesting and fun. And now I know the faces that go with the voices on the other end of the phone!

The Swap Hound

Sleazy fine print: Swap Hound listings are based on divination of weasel entrails, Bill Bond's state of sobriety and the maximum number of objections made by Johnny Cochran in an hour. Errors are guaranteed to creep in on a regular basis. Before wasting your gas and time, double check with a credible source.

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 February HPARC Meeting

by **KE8QT - Director of Downriver Propagation**

Meeting commenced at 7:40 P.M. with welcome and introductions. Explanations of club door prizes and raffles. Motion by WD8R to approve minutes of January meeting. Seconded by N8FPN. Passed. Notification that Win, N8RLM, is ill but recovering. Also that Lou, N8FOF and Jerry, K8PIK have become Silent Keys. Program on RF suppression in vehicles presented by Phil Mohan, KB8THN. Broke for refreshments at 8:25; resumed 8:45. Introduction and welcome of new members. Notice of Field Day 6/24 and 6/25 at Hazel Wood property. Reminder of banquet on 6/14.

Treasurer's report by K8TRF. Motion to accept by N8GMA; seconded by N8SMJ. Passed. Reminder that all who have reserved rooms for Dayton must pay for rooms by the March meeting. Reminder of Kids' Net, Sunday nights, 7:00 P.M. on DART. DF kits have been sold out. Notice that the club incorporation process will require new club by-laws and the re-titling of some club officer positions, as well as some other work.

Lawyer to be at March board meeting. March club meeting will feature a presentation on QRP operation. Reminder of Oakland County siren testing March 4. Budget presented by WD8S. Motion to accept by N8TMQ; seconded by N8WYO. Passed. Club drawing won by Tom, N8TMQ. Adjourned 9:15 P.M.

Mikey's Five Buck 2 Meter "Broomstick" Beam

by Mike Musick - N0QBF

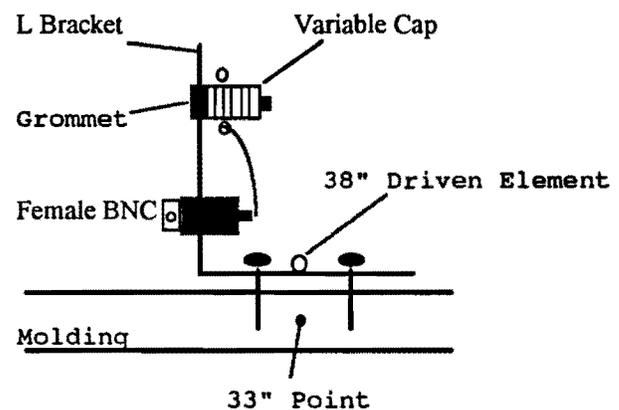
Scrounge, beg, borrow or buy the following materials:

- 5 coathangers (regular shirt type)
- 4-1/2' of 3/4" Square molding, 1" is o.k., but will get heavy to hold, and 1/2" is o.k., but will make assembly harder. A broomstick will work, too, but the round cross-section will make attaching the elements difficult.
- 1/2" (x 1-3/4") L-bracket w/ screws. Brass preferred.
- 3/8" cloth staples
- Variable capacitor, 5-50 pf. Using a small vaned air-variable solves some construction problems.
- Small rubber grommet (to fit tightly around mounting threads of cap)
- BNC connector, female chassis-type.
- Solder

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Tools you will need: Hammer; Drill, with 3/8" and 5/16" bits; Screwdriver; Pliers; Tape Measure; Soldering Iron (min. 50W) or Gun; Sandpaper (medium or fine will do); Felt-tip marker; Saw

- 1) Unbend 4 coat hangers. Use ***all*** of the hanger, do not be tempted to cut the squiggly part at the top or you will not have enough material left. Make sure that they are good and straight. Cut them for one each of the following lengths: 35-5/8", 36", 38" and 39-3/4". While you're measuring, mark the center point of each length (17-13/16", 18", 19" and 19-7/8").
- 2) Since molding typically comes in 6' and 8' lengths, go ahead and cut the 54" length. Lightly sand the corners of the stock to prevent splintering. Measure the length, making marks at 1", 17", 33" and 49". The "handle" portion is 49" through 54".
- 3) Drill the L-bracket, expanding two existing holes on one leg; 3/8" nearest the bend, 5/16" at what will become the top.



- 4) Remove the paint or varnish from about an inch of the measured center of the 38" length of coathanger. Also remove the finish from a 1/2" area 5" from the center. Tin these areas with solder, then solder the center section securely to L-bracket between the two original-size screw holes.
- 5) Securely attach the bracket assembly to the molding with the screws which probably came with the bracket, with the center of the coathanger wire on the 33" mark and the wire perpendicular to the molding. The drilled holes should face the 49" mark.
- 6) Place the BNC connector in the 3/8" hole, with the solder pin inside the L. Insert the grommet into the 5/16" hole, and screw the capacitor into the grommet. **IMPORTANT** - most air-variable capacitors are not

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insulated from their frames. Mounting the capacitor to the L-bracket without the grommet or some other insulator will result in a short.

7) **MAKING THE GAMMA MATCH.** Take the 5th coathanger, and cut a straight length of the entire bottom part of the hanger. Make a small bend in one end, removing the paint or varnish in the spot where it will be soldered to the top contact eyelet of the capacitor. Make a 90-degree bend 5" from this point, corresponding to the paint removed in Step 4. Align this bent wire assembly parallel to the 38" element, with the small bend in the capacitor contact eyelet, remove the finish from the bent wire in the area of contact with the 38" piece, trim the excess wire beyond the element, and solder to the element and capacitor eyelet. A small J-bend in the element end of the bent wire will add strength to the solder joint.

8) Find a suitable piece of wire (even a scrap of coathanger) to go between the bottom contact eyelet of the capacitor and the center pin of the BNC connector. Solder in place.

9) Using the staples, attach the three remaining coathanger elements to the same side of molding as the L-bracket/gamma match assembly, centered and perpendicular: 35-5/8" at the 1" mark, 36" at the 17" mark, and 39" at the 49" mark.

10) **TUNING THE ANTENNA.** The 5" spacing of the gamma arm will get things in the ballpark, so all that's needed is to tweak the capacitor to get the best VSWR. Attach a suitable coax to the BNC connector; it would be helpful to use tape or cable ties to anchor it to the molding portion of the beam. Hold (or have an assistant hold) the antenna in the clear. With an appropriate SWR meter in the line, adjust the capacitor for the best value on a freq around 146.500; it should be 2:1 or better. Don't forget that the SWR will change when you remove your hand and screwdriver from the vicinity of the elements, so a couple of final tweaks may be in order. Also, **ALWAYS USE THE LOWEST POWER NECESSARY** to get a meaningful reading from the meter - usually never more than 5 Watts. **NEVER TRANSMIT WITH HIGH POWER (>10W) INTO AN UNTESTED ANTENNA.**

Lacking an SWR meter, call-up a ham friend within "scratchy" receiving range and have him/her transmit a test signal. Aim in the direction of the signal, and adjust the capacitor for the best reception. Alternately, find an

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active repeater, also in "scratchy" range, aim the antenna, and adjust.

VARIATIONS ON A THEME

The construction techniques outlined were mostly determined by what was on-hand or available in one trip to the hardware store. Probably the most difficult component to locate will be the variable capacitor; find what you can and adjust assembly methods and dimensions to fit. The only "critical" portion is that the gamma matching arm needs to be 1" to 1-1/2" parallel to the 38" element and should attach directly to the capacitor; the distance between the other side of the cap and the center pin of the BNC connector should be kept as short as reasonably possible.

A piston trimmer cap can be used instead by insulating the L-bracket with electrical tape above the BNC connector and taping the cap to the bracket, screw end up. The gamma arm is then soldered to the contact or wires on the screw end, and the other end is then wired to the center pin of the BNC connector.

Other variations can include eliminating the BNC connector, soldering the center lead of the coax directly to the bottom connector of the capacitor and the braid to the L-bracket. The coathanger elements can also be attached by sawing shallow serfs in the channels, pressing into place, and applying hot glue to keep them put. The 16" spacing between elements is not sacrosanct; if all you have is a 48" piece of wood, 14"-15" spacing will do just about as well.

To lessen the fatigue in extended hand-held use, a series of 3/8" holes can be drilled through the molding between the 1", 17" and 33" elements to reduce the weight. Don't drill-out so much that it doesn't hold together, or breaks the moment you "oops" when putting in the car.

This design was intended as a quick-and-dirty, El Cheapo antenna for hand-held use in foxhunting. It won't hold-up very well under lengthy exposure to the weather; maybe (MAYBE) it'll be good for a year if you spray a clear coat over everything, protecting the capacitor from the spray. It would also be a good idea to protect the capacitor from direct moisture with a small plastic box or cup, with opening down. A regular TV antenna mounting bracket will do the honors of holding it to a mast - drill appropriately in the HANDLE portion. You cannot mount a vertically-polarized beam to a metal mast in its middle without severely affecting its performance.

Hazel Park Amateur Radio Club

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Club Call Trustee

KI8V - Verline Ferris
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Board of Directors Meeting Schedule:

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 - KG8OW Arlan

Mailing Crew - KA8NCH Ed,

WB8OSZ Gene, KB8NIH Bill

DART Board of Directors- WD8S, NR8D,
WD8JWM, KA8PHP, KG8OW

Repeater Trustees - 2m N8MLM 440 N8EQD

CW Net Managers - AA8JN Frank N8WYO Al

2m Net Manager - KE8QT Jern

Kids Net Manager - KB8TVE Joe

Club Refreshments - K8DZT Frank

Club Tee Shirts - N8UUS Phil

Public Information Officers - AA8EG, WB8TIV

Club Equipment Custodians - KF8KS, WB8ATZ

County Liaison - KA8PEH Al

Dayton Hamvention Trip Chairman - WD8S Mike

Club Jackets - K8DZT Frank

1995 Field Day - Marty KB8RSH Dave KB8RXK

Rocking Chair Net Manager - WB8OSZ Gene

Club HF Awards Manager - KB8NKD Dick

Club VHF Awards Manager - KB8HSR Tim

ARRL Technical Coordinator - AA8EG Don

1995 Banquet Chariman - WB8JWM Barry

1995 Swap n Shop - N8TMQ Tom

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

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