

ZERO BEAT

The Hampden County Radio Association, Inc.

Board Minutes

It was resolved at the last board meeting that members should replace all occurrences of HI HI with HO HO in honor of the holiday season.

20m Beacons

There are now 9 crystal-controlled beacons that each transmit for approximately one minute automatically one after the other over a ten-minute period. Each beacon transmits four series of 9-second dashes using 100 watts, 10 watts, 1 watt and 0.1 watt! One can listen to the beacons and get a quick appraisal of where the band may be open around the world, as well as a means of comparing receivers and antennas by switching them during the same 9-second dash. For more information, please see June 1983 QST page 27. The updated beacon schedule is as follows:

Time	Station	QTH
00	4U1UN/B	New York City
01	W6WX/B	California
02	KH6O/B	Honolulu
03	JA2IGY/B	Japan
04	4X4TU/B	Israel
05	OH2B	Finland
06	CT3B	Madeira Is.
07	ZS6DN/B	S. Africa
08	LU4AA	Buenos Aires

Remember to give ample room either side of 14.100 kHz for these beacons. This is very important to make this beacon system worth while.

Tidbits

- Frank NC1I (ex WA1RWU) recently married and now residing back in Agawam.
- Shawn NC1B (ex KA1MCA) recently attained DXCC CW status.
- Did you see the article on the NC1I/1 Vermont 70cm EME expedition in the December 1986 CQ Magazine?
- The ARRL recently renewed the HCRA's Special Service Clubs Status.
- Yankee Clipper Contest Club (YCCC) next meeting Sunday December 7 at the Sherator Sturbridge at 1:00 PM. Contact Dave Robbins KY1H at 413-655-2714 for more info.

Next Meeting

Friday December 5th, 1986
Feeding Hills Cong. Church
Center of Feeding Hills
Routes 57 and 187
Doors open at 7:30 PM
Meeting starts at 8:00 PM



Gab Fest

Please plan to stop by December 5th for the first annual HCRA Gab Fest, complete with finger food and show and tell. Many local hams will be on hand with what's new (and not so new) in ham radio.

We hope to have much of the equipment that you see in the pages of QST, CQ, and Ham Radio on display. If you have a new piece (or old radio equipment) that you would like to bring to the meeting we'd love to hear from you. Please contact John AC1T at 413-786-2438, or Bob KA1KPH at 413-786-7966.

Come by and meet other hams, and check out what equipment may be on your Christmas list!

Dues

If you have not sent in your dues, please remember that all dues are payable by November 1st each year.

Racks Available

Are you in need of a rack cab? The HCRA has obtained two six foot rack cabs that are in need of a home as soon as possible. In addition, another club member has one or more relay rack cabs available. If you are interested in further information please contact Bob KA1KPH at 413-786-7966, or write to the club address.

1987 Handbooks

The HCRA is pleased to announce that it has just received hot off the press a limited number of 1987 ARRL Handbooks. We will be offering these books on a first come first serve basis for only \$17.00 (\$1.00 off the cover price).

You may reserve a copy by calling Bob McCormick, KA1KPH, at 413-786-7966. Please plan to make arrangements for pickup; they will be available at the December HCRA meeting in Feeding Hills. If copies remain you will be able to purchase them at the meeting.....

The HCRA has a limited supply of license manual material from its fall classes. A limited supply of TUNE IN THE WORLD (no tape), and the TECH/GEN and ADVANCE license manuals is still available. These will be available for purchase at the December club meeting. In addition, the HCRA will also be glad to ship any of the license manuals directly to you via UPS for NO additional cost. If you are interested please call Bob McCormick, KA1KPH, at 413-786-7966 to place your order.

Callbooks

The Callbooks are in!

If you have ordered a callbook through the HCRA, either with your 1986-1987 membership application, or directly, they will be available for pickup at the next club meeting on December 5th, 1986, at the Feeding Hills Cong. Church.

If you are unable to make it to the meeting to pickup your book(s), please contact Ron, WB1ETS, at 413-739-5228 to make alternative arrangements.

Youngest Novice?!

How old were you when you got your Novice ticket? Jill Dietrich from Bremen Indiana may well be the youngest Novice yet. At only 5 years old she has passed both the 5 WPM code test and Novice theory with perfect scores!

6m and Up

No new activity to report this month.....

Your input is necessary to keep this column going!

Share your experiences on UHF and VHF through 6m and Up.

40th January VHF Sweepstakes

The HCRA again will be *VERY* active for the ARRL sponsored January VHF Sweepstakes. All club members are strongly encouraged to partake in this contest, and submit logs to the League to help us in our effort to reach our goal of first place in the Affiliated Club Competition.

The club station, WINY, will be well equipped for the contest. We placed 4th nationally last year; we hope to place in the top five. If you would like to partake as one of the operators in the contest please drop me a line

You can help our effort even if you are not a contester, or if you don't have anything but FM equipment for 6 meters and above. The January contest has a great deal of activity on FM, and FM contacts count for the same number of points as any other! So, you can help in two ways. First, get on and give a point to those who are in the contest looking for QSO's. Since the final score is computed by the number of contacts times the number of grid squares, each FM contact can mean hundreds of additional points for the big contesters! Secondly, if possible, keep a log of your contest contacts, and submit it to the League. Even one thousand points will help the total effort for the club to take first place in the club competition.

In the January issue of Zero Beat we will provide you with copies of log sheets, entry forms, grid square maps. Please remember that if you do send in logs that you have 30 days after the contest to do so.

When is the contest? It begins 1900 UTC Saturday January 10, and ends 0400 UTC Monday January 12. The object of the contest, other than to make the HCRA the top scorer in the country, is to work as many amateur stations in as many (2° X 1°) grid squares as possible using frequencies above 50 MHz.

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You only have to exchange your grid square. For example, for most of us who reside in western Massachusetts, our grid square is FN32. Those of you who live below us in CT are in FN31. The exchange of signal reports is not necessary.

Each contact on 6 and 2 meters are worth one point. Contacts on 220 and 432 MHz are worth two points each, while contacts on 902 and 1296 MHz are worth four points each. Any contacts made on bands above 1.2 GHz are worth 8 point each! Another important point in scoring is that you may work the same grid square, and the same station **ON EACH BAND!** the multiplier is the **TOTAL** number of grid squares worked. So, for example, if you work ten people on 2m FM in five grid squares, and five people on 70cm FM in two grid squares your score would be computed as follows: 10 QSO points for the 2m contacts (10X1) plus 10 QSO points for the 70cm contacts (5X2) equals 20 QSO points total. 5 grids on 2m plus 2 grids on 70cm yeilds 7 grids total. Your total score is 20 points times 7 grids or 140. You can see that by working many bands and working as many different grids on *each* band your score climbs fast!

Next month we'll discuss what times to look for local activity. The contest has many activity hours where single operator stations will concentrate their efforts looking for activity. 'Till then its time to get working on your rigs and antennas.....

73 de Fred N1DPM

Calls

Many of you often wonder what calls the FCC is currently handing out. All calls are allocated sequentially from four groups, determined by license class. The last list published by the FCC was for October 1986. Amateur Extra calls are issued from Group A, the last one being NG1T. Advanced calls come from Group B, the last one was KC1AF. Tech and General calls are allocated from Group C where N1EKH was last issued. Finally, Novice calls come from Group D, where KA1OYC was last issued.

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When you pass a VEC exam and upgrade to a higher class of license, you can choose to keep your current call, or change it. If you check the change call sign box you will be issued a call sequentially from the group for the license you earn. For example, if you held a general class license with the call WA1QHR, and you pass the Advanced and check the change call sign box, you would be issued a call from Group B. In this example it could be the next call available in that group: KC1AG.

You can also change your call two other ways. First, if you hold a license that is issued calls from one group, but you have a call from a lower class license group, you can fill out a FCC Form 610 as a renewal (can be done at *any* time) checking the change call sign box. So, if you held an Amateur Extra class license with the call WA1QHR you would be issued a call from Group A, something like NG1U, which would be the next call in the sequence.

You can also obtain a new call by the same procedure of filling out a FCC Form 610 for renewal, and change your address to a location outside your call area. This would qualify you to obtain a call from the Group for the license you hold. For example, NC1B holds an Amateur Extra class license, and lives in Massachusetts. If he moves to Florida, he *must* send a FCC Form 610 to indicate a change of address. If the change call sign box is checked, a new call will be issued from Group A for the District 4 area. In W4 land the last Extra class call sign was AA4WQ! This means that they have progressed through all the 2 X 1 calls, and now are working on the 2 X 2 starting with A!

Exam Results

The HCRA recently sponsored an ARRL/VEC FCC exam. Congrats to the following hams who successfully upgraded at the last session: Joe Krajewski WA1NYU, Advanced; Bob Bessette W1DKY, Advanced; Howard Plouf KA1NVN, Technician; and John Langh KA1MJM, Technician.

Thanks

This issue of ZERO BEAT was brought to you by: The ARRL Letter, K1BXE, KA1KPH, CQ, N1DPM, W1KUE, YCCC SCUTTLEBUT, Worldradio

Please support the HCRA!

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**Happy
New Year**

Contest Schedule

Tnx to Billy Lunt, KR1R, YCCC SCUTTLEBUT and Frank Anzalone, W1WY, CQ for the following contest dates:

1986

Nov 29-30 CQ WW DX CW
Dec 5-7 160m contest
13-14 10m contest
20-21 EA DX CW

1987

Jan 1 Straight Key Night
3-4 73 10m SSB
10-12 January VHF SS
10-11 73 15m & 20m SSB
17-18 73 160m SSB
23-25 CQ WW 160m CW
24-25 73 40m & 75m SSB
24-1 Novice Roundup
Feb 20-22 CQ WW 160m SSB
21-22 DX Test CW
Mar 7-8 DX Test SSB
28-29 CQ WW WPS SSB
Apr 13 144 MHz sprint
21 220 MHz sprint
29 432 MHz sprint
May 8 902 MHz sprint
14 1296 MHz sprint
23-24 50 MHz sprint
Jun 13-15 June VHF contest
27-28 Field Day
Jul 11-12 IARU HF contest
Aug 1-2 UHF contest
Sep 12-14 September VHF contest
Nov 7-9 Sweepstakes CW
21-23 Sweepstakes SSB
Dec 4-6 160m contest
12-13 10m contest

Please consult CQ or QST for more information on the above listed contests and events.

FOR SALE

ESTATE SALE: From the estate of WIGOX: HT-32 and SX-101, plus many other items. Please call Ed Archambault at 413-782-6594

IF you have items for sale or what ever please send them to the Hampden County Radio Association, Inc., P O Box 482, West Springfield, MA 01090

Seasons Greetings

HCRA ZERO BEAT December 1986

VEC Question Pool

Acting in docket 85-196, the FCC has announced the effective date in which volunteer examiner coordinators (VEC's) can maintain the question pools for each examination element. The effective date is December 31, 1986. This FCC action is contrary to the ARRL position, which had urged the FCC to continue to maintain the question pools to assure a single, high quality pool of questions.

Catch W1AW for more information as it becomes available.

New Hams

The HCRA would like to welcome the following new Novices to the ranks of Amateur Radio: Donald and Richard Gardella, Pasquale Lamagna, and Thomas Sherry. Many thanks to Jack KA1KRJ and Jeanette KA1MEW for their help in the Novice classes.

Jack KA1KRJ also administered a number of successful Novice exams to family members and friends of the Dunlaps in Southwick. Charlie, K1II, now has 6 of 7 family members licensed: Carol, Debbie, Jeff, Joseph, and Pauline. Tom Odell, a family friend, also passed his Novice. Congrats to all!

ARRL WAS and VUCC Awards!

If you are interested in obtaining a WAS or VUCC award or endorsement read on! The HCRA, as a Special Service Club, now provides local verification of your WAS and VUCC QSL's. Doc Webb, W1HOD, is our ARRL awards coordinator, and will be glad to hear from you. You can write him at 4 Bullard Ave, Holyoke, MA 01040.

"Quick As A Wink" Printing & Sales Co.

573 Union Street, West Springfield, MA 01089

Telephone (413) 736-8184



Future Meetings

January Meeting

Just in time for the January VHF contest, we will present a meeting on VHF/UHF, and discuss the club efforts in the January Sweeps. W1NY will be operational again, as well as many local hams, with our attempt to take first place nationally.

May Flea Market

Watch ZERO BEAT for future information on our annual spring flea market.

June Banquet

Our annual meeting will be Friday June 5, 1987 at the Feeding Hills Congregational Church.

December Volunteer Examination

On December 13, 1986, the Hampden County Radio Association will sponsor a volunteer examination which will be held at the Hampden Wilbraham Regional High School (Minnechaug). Walk-ins are welcome.

All grades of license examinations will be offered, from Novice to Extra. The session starts promptly at 9:00 AM, but it is suggested that you arrive at least a half hour early to check in, and have your forms validated.

Bring a completed FCC form 610, a check for \$4.25 made out to the ARRL-VEC, a photocopy of your amateur license, and one additional form of identification.

FCC 610 forms can be obtained from the ARRL, the FCC, or at the Hampden County meetings. They will also be available at the exam session, but come early so that you can fill out the form before the session starts.

Please remember that the FCC rule changes regarding the ability to take a written exam without passing a code element will NOT be in effect for this session. Although the effective date was announced as December 1, 1986, approval from another arm of government responsible for the reprinting of the FCC Form 610 has yet to occur. It is expected that these new procedures should be in place by the end of the year.

Stay tuned for more info!

Ancestry of the HCRA

by Tom Barrett W1KUE

Author's Notes: The following is not meant to be a history in the documented sense. I have no documentation, memory is my only reference. On that basis, here is some background to lay a foundation upon which a history may rise.

The club's antecedents lie in the 1930's. Before World War II this area was the locale of three radio clubs. In alphabetical order they were: The Connecticut Valley Radio Club (CVRC), The Springfield Radio Association (SRA), and The Western Massachusetts Radio Club (WMRC). Each organization revolved about a pivotal character, and the rivalry, clash of personalities, and at times, temper flare-ups were a sight to behold. The three colorful characters involved were: Archie MacLean, W1JQ, of the CVRC; Ike Creaser, W1UD, of the SRA; and Lou Richmond, W1AVK, of the WMRC.

These clubs had their periods of wax and wane; first one then another would grow, dominate the scene, and be replaced, only to rise again as circumstances allowed. As I have indicated, personalities played a part in this process, and hams switched from club to club as the spirit moved them. In those days the ham population of this area was about one hundred and fifty, and perhaps sixty or seventy of them belonged to one or another of the local clubs. In addition to the advantage and disadvantages of having a "strong man" in each club they shared another common disadvantage. Their meetings were bogged down with the nitty-gritty of club business, and it sometimes seemed that the less important the subject the longer and more acrimonious the discussion. The result was more hot air than program at club meetings. Decisions were based more on who supported what viewpoint than on the facts of the matter under consideration. Each club maintained permanent quarters. The CVRC rented space downtown, the SRA met in building at W1UD's QTH off upper State Street, and the WMRC had the use of the facilities at Springfield Airport on Liberty Street. All three had station equipment, sometimes operable, sometimes not. Give the above situation, and method of handling club business, it should come as no surprise that the clubs were unable to support, on a continuing basis, more than a core group of

a few members, and were beset by financial problems.

At this point I believe it is necessary to insert a personal note or two to assist in maintaining perspective. I knew W1JQ, W1UD, and W1AVK personally, and valued them all as personal friends. I was closest, however, to W1JQ. I joined the CVRC in 1932, and in time became its Treasurer. I attended meetings of the other clubs when time permitted, and base my observations concerning their operations on that, and on discussion with friends who were members of SRA and WMRC. If my recounting of the old days is subjective, so be it.

The circumstances set forth above remained substantially constant from the early 1930's until December 7, 1941. Pearl Harbor shut down ham radio for the duration, and most hams went either into the military or war work. Between 1942 and 1946 the War Emergency Radio Service (WERS) on 112 MHz provided some quasi-ham operation for those available, but this period had little effect on our story. All three clubs died and were never to arise again.

By mid 1946 most of those hams who were coming home had arrived. The pre-war group was augmented by a large number of service trained operators with an interest in ham radio. The VHF bands were realigned; five meters became six meters, two and a half meters became two meters; the higher frequency bands also were revamped. Two meters was the lowest frequency band which simple equipment (read that as modulated oscillators) was allowed, and where super-regenerative receivers gave acceptable performance. Everybody and his brother appeared on the low end of two meters, and it was here that one of the factors leading to the forming of the Hampden County Radio Club developed. As hams will, a rag chew net was established, and fellowship became rampant. Visits to each other's shacks, gatherings at various oases, and eyeball QSO's at radio stores, etc., brought old timers and newcomers into contact. A good time was had by all (or almost all).

A second factor was a small group of former CVRC members who got together from time to time to shoot the breeze and quaff a brew or two. It consisted of W1JQ, W1FOF, W1KUE, and occasionally a few

others. They could sense a need for a ham club; therefore, in the spring of 1947 a representative group of hams was invited to meet at W1KUE's QTH to discuss possibilities. Among those present, in addition to W1JQ, W1FOF, and W1KUE were W1OBQ, W1OJV, W1IOL, W1NY, W1JWV, W1NLE, W1IC, W1MNG, W1KFV, and others whose calls I have forgotten. Agreement was quickly reached that a ham club was still active and a factor with which to reckon. It quickly became evident that the current crop of hams would not support a club effort that spent the majority of its time and efforts haggling over routine club business, and the bugaboo of where to find seed money reared its ugly head.

W1JQ made the first move. He proposed that he, W1UD, and W1AVK step aside as possible leaders of any ham club evolving from this meeting. It was the consensus that a type of organization in which a Board of Directors would be responsible for routine club business was the answer to the lack of meeting program time. As for seed money, this would be forthcoming if the strong man problem could be solved. In anticipation of such a solution, W1NLE and W1KUE were designated to draw up a Constitution and By-Laws for consideration, another group agreed to present W1JQ's proposal to W1UD and W1AVK, and a third would determine a course of action leading to an organizational meeting of all interested hams.

To the surprise of all, or almost all, the strong man problem proved the easiest to resolve. W1UD and W1AVK joined W1JQ in the include me out declaration. Gil Williams, W1APA, well known in local ham circles but without previous local ham club affiliation, was persuaded to accept the post of Chairman Pro Tempore of an organizational meeting, and spokesman for the sponsoring group. W1KUE was named Secretary Pro Tempore. Those who could afford to do so put up various sums to defray initial expenses, and the work started. By this time the ham population of the area was three hundred to four hundred, and contacting all of them could best be accomplished by mail. Post cards were purchased and mimeographed, a brand new Call Book was sacrificed to the cause and the W1 section ripped from its moorings to be divided among the

Ancestry of the HCRA

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volunteer post card addressers. Any ham listed in the book as living in an area bounded on the north by Northampton, on the east by Palmer, on the south by Enfield, and on the west by Westfield was sent a meeting notice. The Western Massachusetts Electric Company auditorium on lower State Street was reserved for the meeting. At this point, the early fall of 1947 if memory serves, all one could do was wait and hope.

The fateful evening arrived. More than a hundred hams converged on the WMECO auditorium, and once the long time no see eyeball QSO's were quited down the proposal to form the Hampden County Radio Club was put forth by WIAPA. Those of us who remembered pre-war club meetings felt right at home. At times several hams were addressing the body simultaneously, and one small group left the auditorium in protest over some real or imagined affront. (As I recall most of them straggled back to the hall in time for the final vote.) In the end what happened there is history. The proposed Constitution and By-Laws were adopted, albeit somewhat altered. WIAPA was named President by acclamation and W1KUE became Secretary by default. The positions of Vice President, Treasurer, and Directors were filled, but memory does not furnish their names or calls. The fact that the Hampden County Radio Club survives and is active some forty years after its launching is a tribute to those who recognized the shortcomings of its predecessors, and managed to avoid or minimize those shortcomings in the establishment of the Hampden County Radio Club.

FCC exam credit

As announced in the HCRA classes and on the various local nets, the FCC had planned to implement a new program through the VEC system that would allow us to pass and obtain written exam credit without passing the required morse code elements. The effective date for this change was to be December 1st, but it has now changed to December 15th, and could possibly change again.

The FCC states "This change was detailed in a Report and Order adopted October 6 and

released November 7, 1986. The present method of first requiring successful completion of the telegraphy examination element reflects the former needs of the FCC when we administered examinations. Under the volunteer examination system, it is clear that there is no reason to disallow credit for a written element passed within the previous one year. If VE's find it useful and convenient to administer a written element to an applicant who has failed the telegraphy element, or to administer written elements before telegraphy elements, they should be able to do so."

"We are adopting rules to allow examination credit for all amateur operator written and telegraphy examination elements. These provisions simply extend the use of the CSCE [the certificate issued upon successful completion of an exam element] to written elements. We are amending the rules to clarify that a VE administering an examination under the Novice VE system does not issue a CSCE. Instead, we are adopting new rules consistent with Moseson's recommendations to allow examination credit for Elements 1(A) and (2) to a candidate who presents the administering VE's with a photocopy of a pending application which indicates the person has qualified for a Novice operator license."

The FCC concludes that "The rules adopted herein require modification of FCC Form 610. Specifically, they require new VE Certifications and new instructions to applicants and VE's in Section 11. These rule changes have been analyzed with respect to the Paperwork Reduction Act of 1980 and found to impose a new or modified information collection requirement on the public. Implementation of any new or modified requirement will be subject to approval by the Office of Management and Budget as described by the Act. These rule changes are effective December 15, 1986, contingent upon Office of Management and Budget approval of the changes to FCC Form 610."

Please be aware that this means business as usual for all exam sessions through December 15th. This includes the 13-Dec-1986 HCRA sponsored exam in Wilbraham. As you can see, this change is large enough that it requires the changing of the FCC 610 form. The change cannot

be put into place until the Office of Management and Budget approves, so the December 15th date may actually be pushed back further.

The good news is that some time in the near future you will be able to take a written examination element without passing the associated code exam. For example, if you are currently a General class ham, and come to an exam session, you can fail the 20 WPM code test, but still take the Element 4A and 4B tests. If you pass both written tests you would leave the session as an Advanced class with credit for the Amateur Extra, good for one year. That means you have one year to pass the 20 WPM test, with no limit to how many times you make an attempt within the year.

President's Corner

My best wishes to all for a happy holiday season and a prosperous new year!

I hope that you had time to read Tom Barrett's Ancestry of the HCRA in this issue of *ZERO BEAT*. Much of what was set up back forty years ago remains with us today. Tom's article describes many of the reasons why the club is what it is, and why it operates as it does.

In case you were wondering, the Hampden County Radio Club, which was formed after World War II, became the Hampden County Radio Association, Inc. upon its incorporation in the fall of 1954. At that time we were granted a tax exempt status for educational and scientific purposes.

It is interesting to note that there are now over 1,000 licensed hams in the area Tom described in his article, exclusive of CT. South of the border there are over 1,500 hams from Avon to Manchester, north of Hartford (not including) and up to the Massachusetts border.

As the song goes, we need to know when we've been bad or good. It is just as important to let us know when you like what we are doing as it does to tell us when we are off track. We need your feedback to ensure that the high quality offerings of the club as established by Tom Barrett and the other founders is preserved in the years to come.

May Santa bring you each a shiny new rig, a high gain antenna, and lots of expensive feed line for XMAS!

73 de Bob McCormick KA1KPH

Need more information?

The following hams are ready to answer your questions on:

- HCRA & ARRL membership
- Upcoming HCRA meetings
- ARRL/VEC exams

Please call...

Yorke Phillips K1BXE 566-3010
Steve Nelson WA1EYF 596-8216
Ray Burk WB1GLX 730-2774 days
Ray Burk WB1GLX 596-6403 eves
Bob McCormick KA1KPH 786-9958
Ned Carpenter NB1R 596-4625

Or write directly to the club!

ARRL/VEC Sessions

December 13th

Minnechaug Regional High School
Main Street, Wilbraham MA

Walkins Always Welcome!

We also handle one-on-one exams for those who have special needs or are unable to attend a scheduled session.

Please contact Yorke Phillips, K1BXE, for more information on the ARRL/VEC program.

**Next Meeting
December 5, 1986**

We Need Your Input!

The HCRA Repeater Sub-Group is looking for your input to develop a strategy for future enhancements and changes to our repeaters.

We'd like to hear about any complaints you have as well as suggestions of things you'd like to see.

You can send your input directly to the club mailing address or call Ron WB1ETS at 413-739-5228.

Thanks for your support!

HCRA Meetings

First Friday of each month at
Feeding Hills Congregational Church
Center of Feeding Hills
Intersection of routes 57 & 187
Doors open at 7:30 PM
Meeting starts promptly at 8:00 PM

HCRA December Meeting

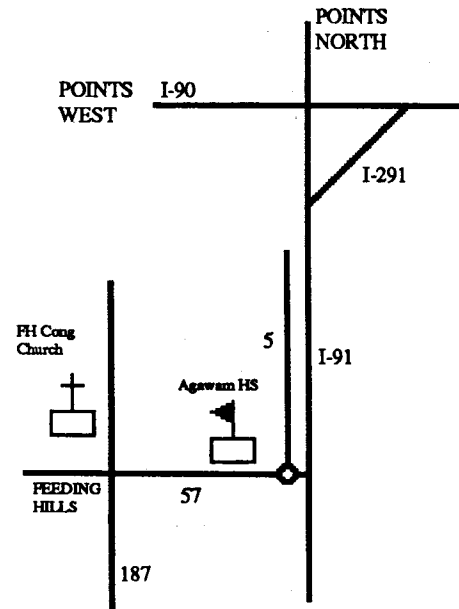
Stop by the December 5th meeting for the first annual HCRA Gab Fest, complete with finger food and show and tell. Local hams will display what's new (and not so new) in ham radio. Check out equipment that may be on your XMAS list!

Good News!

Chet W1HGJ reports that the ATV repeater is back up on the air from a new site in CT. If you are interested in ATV give Chet a call - try 147.105 MHz.

HCRA Repeaters

KA1JJM/R	147.105	mhz
KA1KPH/R	449.175	mhz
W1NY-1	145.010	pkt
W1HGJ/R	426.250	atv



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