

ZERO BEAT

HAMPDEN COUNTY RADIO ASSOCIATION, INC.

Springfield, Mass.

ARRL Affiliated, 31st Year

MAY 1, 1981

** FLEA MARKET **

FRIDAY, MAY 1, 81

BARGAINS GALORE !!!!!

Hams, like everyone else are feeling the effects of inflation and the loss of buying power. If you're like myself the amount of money you have to spend toward amateur radio is limited and you want to make every dollar count.

Well !!!!! the annual HCRA flea market is about to happen on the first Friday of May and here is a choice opportunity to be able to purchase many radio related items at very affordable prices. Bring some money (a large sum is not necessary) and be prepared for an evening of judicious shopping and horestrading.

When eyeballing flea market items, don't just look at items for face value. For example, a beat up minibox with two SO239 connectors mounted with a price tag of \$.25 is well worth it - just in the connectors. If you see things which are of no immediate need, don't pass them up, especially things which have coax connectors, phone plugs, phone jacks, etc. Everyone, sooner or later, is going to have to replace a broken antenna connector or key plug. Just recall the little items you've had to replace in the past year and when you didn't have a replacement, that meant a trip to the local radio emporium for a new part at net price. If you never homebrew or don't plan to, come anyway and pick up a few spare parts for your rig (probably at a very modest price). If you are planning to homebrew, plan to pick up items that are not available at radio supply houses, such as variable capacitors, R.F. chokes, and multi-deck rotary switches. Things such as resistors and small capacitors should be purchased on an as-needed basis because of their varied values.

If you see an item with a price tag on it and you don't wish to buy it at the listed price, don't be afraid to dicker with the seller. After all, he is selling what he doesn't need or no longer wants. Another ploy is to wait to the end of the evening and dicker over items that are still left - you're bargaining power has greatly increased as the seller probably does not wish to bring anything home (except money).

It'll be a great evening whether you buy anything or not so "Come On Down"!

Gent, W1CQF

HAMPDEN COUNTY RADIO
ASSOCIATION, INC.

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H.C.R.A. Annual Banquet

Friday June 5, 1981

N.C.O. Club - Westover A.F.B.

Refreshments 6:30 pm

Sit down Dinner 7:30 pm

Entree

Roast Round of Beef with tossed salad, vegetable, potato, rolls & butter, beverage & desert.

\$ 8.50 per person

Music, Entertainment and drawing for IC-2AT Handheld.

Tickets available from Club Officers & Board Members, and Booth at May 1 Flea market.

or

Send S.A.S.E. with check payable to JOHN DUMONT.

Mail to: "John Dumont"
20 Surrey Lane
Chicopee, Ma. 01020

All tickets must be purchased and payment received by May 28.

HAM OF THE YEAR NOMINATIONS

The following Hams have been nominated for the award:

K1EPI Florian DiRoma	W1MM BOB Stephens
W1UKR/W1kue Eunie/Bob Gordon	WB1ETS Ron Beauchemin
W1hhr John Sullivan	W1qwj Dick Stevens
W1tm Bill Lowe	W1kk Art Zavarella
K1yqq Chet Wisiolek	N1agv/W1blaap Pete/Rollie
W1bvr Percy Noble	K1Be Jeff Duquette

The voting will take place at the FLEA MARKET June 5. Be Sure to cast your vote.

The H.C.R.A. would like to welcome its newest members

Ralph Carpenter	KA1V	Russ LaMorder	KA1GIP
Everett Klitt			

** FLEA MARKET **

LOCATION: FEEDING HILLS CONGREGATIONAL CHURCH,
FEEDING HILLS, MASSACHUSETTS

DIRECTIONS: SOUTH ON ROUTE 91, TO AGAWAM,
SOUTHWICK EXIT. WEST ON

ROUTE 57 TO INTERSECTION OF
ROUTE 187. THERE IT IS!!

FOR MORE INFO. AND TABLE RESERVATIONS
CONTACT:

ANDY BOUCHARD, WB1BZW
650 SPRINGFIELD STREET
FEEDING HILLS, MASS
413-786-9735

DOORS OPEN AT 6:00 PM FOR SELLERS
FLEA MARKET: 7-11:00 PM

TABLES: \$ 3.00

HAM EVENTS

<u>Date</u>	<u>Event</u>
May 1st, 1981	H.C.R.A. Flea market.
May 3ed, 1981	PVRA Flea market, George Genney High School, Forbes Street, East Hartford.
May 8, 1981	M.T.R.A. Meeting
May 9, 1981	8th annual Hoss Traders tailgate Swapfest. Deerfield Fair Grounds, Deerfield, New Hampshire. Adm. \$ 1.00. Talk in on .52, and 146.40/147.00.
May 16, 1981	Flea market and auction: Flea market 10:00 am to Noon, Auction 12 Noon to 5:00 pm. Waterman Lake, Greenville, Rhode Island Talk in 146.18 and .76 RPT.
May 30, 1981	Portland Wireless Association Flea market. For more information contact N1SD.
June 5, 1981	H.C.R.A. Annual Banquet. N.C.O. Club Westover Air Force Base.
June, 1981	Field Day, to be announced.

My thanks to Jeff, K1BE and John, K1GTE for the information on these events. If you know of a Ham related event please send in a brief announcement and I will publish it.

Ray, K1CRG, Editor.

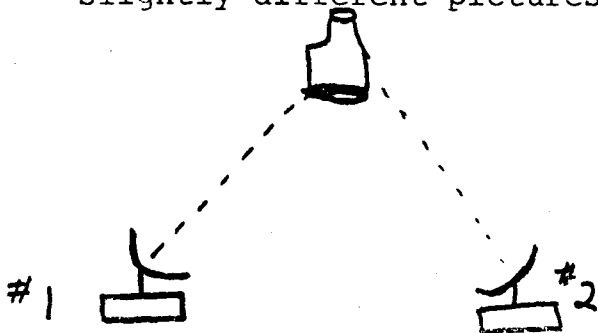
VLBI by KlBE

Amateur astronomy has made vast leaps forward technologically with the equipment they use. 25 inch Dobsonian telescopes are being built by amateur astronomers. The equipment now available in people's backyards was once only at large universities. Some of these advances will affect amateur radio too. I think mechanical enhancement of signals and advanced microprocessing will greatly affect microwave communications. An immediately available technique is VLBI!

Simplified Explanation of VLBI

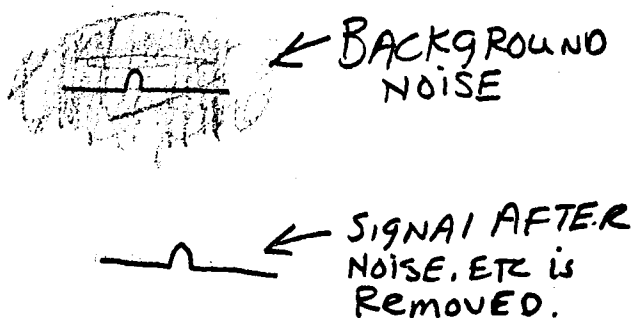
Very Long Baseline Interferometry (VLBI) is used now in radio astronomy. A proposal to have antennas stretching across the continent has been proposed. With it in use, radio astronomers would be able to radio map the entire sky. Just how does it work?

Two radio antennas (telescopes) are both focused on the same spot in the sky. They are physically far apart so they "see" slightly different pictures of the same object. If antenna one



sees the bottle, the right hand side of the bottle will not be as clear to it as the left side is. However, antenna two can clearly see the right hand side, but does not see the left side as well. If you followed me so far, the two images can be fed into a computer and made into one image. This is similar to how your eyes work with binocular vision. Now both sides of the bottle will be visible.

Imagine several antennas quite a distance apart. They each look at the same object, and each one has a clear view of one section depending upon their perspective. When you have radio signals and a computer, you can combine the signals electrically and get rid of the background noise at the same time. The computer phases the incoming signal, and the program tells it what to do to get rid of the "unwants". Then an unreadable signal from far out into space can now be clearly seen. Add some amplification and you can see far away radio galaxies never seen before.



Ham Radio Applications

Computers are now common in the ham shack. Using a VLBI system and setting up two antennas quite a distance apart, signal enhancement and noise cancelling can reach hitherto unknown levels. Simple phasing of two differently polarized antennas to enhance signals has been tried for years and works. But I doubt that anyone has considered using computers to phase and adjust the system. Radio hams don't deal with 1,000 db losses on terrestrial signals and our S/N signals aren't 1/100. This is not as simple as I made it out to be but it is not something that requires an engineering degree either. I predict that you'll see this being used within five years.

TIDBITS

WLKK's article about meeting Hiram Percy Maxim that was in Zero Beat last year was reprinted in the National Convention pamphlet in Orlando...W1TM is retiring next year from the workforce... At every club meeting a bulletin board is set up in the back of the room. This is so that photos, advertisements, announcements, etc can be posted by the membership. Feel free to make use of it... W1JUU has bought a house in Granville... AC1T is graduating as an Electrical Engineer this year...If you're interested in sunspots and how they occur, visit the local library and read the March '81 issue of Astronomy magazine... K1BXE almost has his satellite TV receiver operational...K1CRCG working to get his code speed up...Are you planning to attend Field Day this year? Be glad to see you there!...K1APR enjoys watching auto racing... K1CHI studying data processing at STCC...Did everyone figure out that the ad for the "Quick Sale" in last month's ZB was our annual April Fool's joke? Who bought the TH3MK3 that was never used for DX?...W1YCA got a raise/promotion at work.....

OPINION by K1BE

The ARRL raised its' annual dues to \$25.00 effective July 1st, 1981. I wanted to write an editorial listing all the big and little things the ARRL does for all radio amateurs: OSCAR, QSL bureaus, WARC, FCC representation, etc. I was going to mention how much WARC alone cost. I wanted to quote the idea of the "sunshine patriot", who is only there when the going is easy. None of these would get the luke-warm members to renew. I just couldn't find the proper words that would convey why we should all support the League more than ever. I did find this in the ARRL 1981 Handbook:

"One of the League's principle purposes is to keep Amateur Radio's activities so well conducted that the amateur will continue to justify his existence. Amateur Radio offers its followers countless pleasures and unending satisfaction. It also calls for the shouldering of responsibilities—the maintenance of high standards, a cooperative loyalty to the traditions of Amateur Radio, a dedication to its ideals and principles— so that the institution of Amateur Radio may continue to operate ' in the public interest, convenience, and necessity."

Amateur Radio will not continue as it is without the ARRL;
and you are the League!

73,
K1BE

FOR SALE: YAESU FT-101E HF transceiver, with cw filter, fan, extra tubes, factory repair manual, runs on ac or dc; SP101PB phone patch, speaker; FTV 650B, six meter transverter; D-104 microphone with stand; Spectronics DD-1 digital frequency display; Dentron GLA-1000 linear amplifier. All in as-new condition, with manuals. PACKAGE DEAL ONLY, \$1100.00 Jeff K1BE (413) 569-6739 evenings.

With Eunie and Bob Gordon leaving for Florida, we thought it only appropriate that we reprint one of the classic Zero Beats that caused such a furor in the club years ago!!

BOARD OF
DIRECTORS
MEETING

FROM APRIL 1964 ZERO BEAT. KLRPB was editor!

Vice President Norm Peacor, KIIJU announced the winner of the HCRA W.A.S. contest and made his report of the program for the May meeting. Last but not least, the board discussed and voted to promote a cultural Improvement Program for the membership. More about this innovation later.

The meeting was officially closed with coffee and lemon pie. KLRPB showed off his snack and new operating desk. On the insistence of the other B/D members, KLRPB played a short Vivoldi selection on his violin.

CULTURAL
IMPROVEMENT
PROGRAM

The current success of the Technical Aid Program has prompted your B/D to look into other fields of endeavor for the membership. The Board expressed a belief that most hams tend to neglect other forms of social recreation and that some "eye-opening" is in order. For example there are many people who consider amateur radio a folly and would much rather collect stamps, antique furniture, or raise tropical fish. Many of our leading citizens are convinced that the ultimate form of enjoyment can be had by partaking in the arts. Your editor, for example, finds playing the violin to be particularly relaxing.

What is all this leading up to? Your B/D has authorized the purchase of 120 tickets to the Hampden County Symphony Orchestra Concert to be held Tuesday, April 14th at 7:45 PM. These tickets were obtained at a special discount price of \$1.00, a savings of 50¢ a piece. They constitute confirmed reservations and cannot be turned in for refund. Members are urged to purchase their tickets from George Dougan, K1PMK before the start of the auction meeting. It should be mentioned here that all 120 tickets must be sold otherwise, the burden will fall on the club treasury. In this case, the banquet plans would have to be cancelled. Treat your XYLS to a night out fellows. This richly rewarding evening will only cost you \$2.00 (2 tickets), so you can't go wrong. The program will include works by Corelli, Mendelssohn, Grieg, Johnson, Sibelius and Beethoven. Your editor will be sitting to the right of the conductor. Hope to see you then. Any extra applause will be appreciated.

OUT OF
BUSINESS

We regret to announce that our favorite electronics supply house is being forced out of business. His loss, however, unfortunate as it is, may turn out to be your gain. This dealer is having a private sale and is reportedly saving the best deals for HCRA members. Here is a sample.

2 Hammarlund Keyers	\$20.00 each
1 Collins 32 S-3	425.00
4 Drake 2B	120.00 each
1 Polytronics Poly-Com 6	138.50
3 Electro Voice 664 Microphones	15.00 each
2 Garrard Type A record changers	35.00 each
5 Gonset G-15 CB Transceivers	85.00 each

Many other items too numerous to list here are available! Don't miss this classic opportunity. Call now or make a personal inspection of all this delicious gear.

ZERO BEAT

And then in the May Zero Beat:

EDITOR'S CORNER First things being first, I'd better come up with some sort of concise explanation for the April Zero Beat. It all started when Tom Shea reminisced over the masterpiece he and the publishers put together in 1958. Bob Gordon gave me a copy of it a few days later and the gears began to revolve. Everything in the 1963 April issue was completely on the level except for the following:

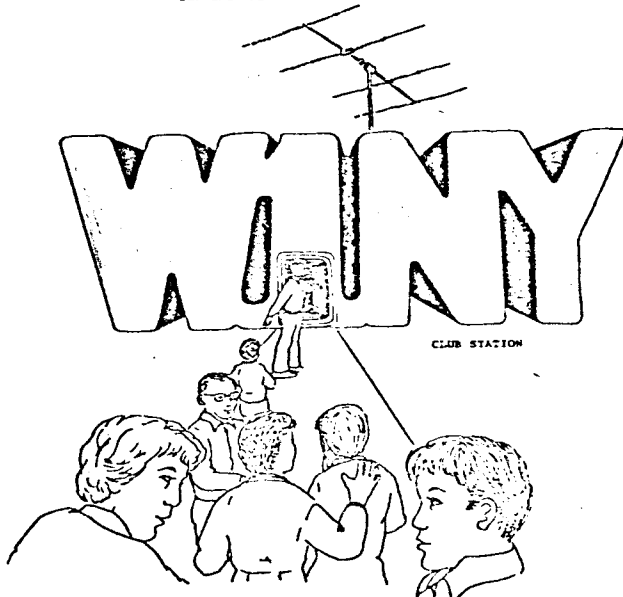
1. The Cultural Improvement Program was not discussed by the B/D. They were kept completely in the dark.
2. I did not play the violin for Board members.
3. The club did not buy any concert tickets.
4. There was no "out of Business Sale", maybe that's why I "forgot" the name and phone number of the mythical outfit.

We had a ball! Eunice called me at work to tell me that the bait had been taken. She and Howard Gurney had been swamped with inquiries as to who was going out of business. I logged two more calls at work and about 15 at home. Nobody mentioned the concert. At the Wednesday evening get together at 28.7mc., bedlam broke loose as members began to question the right of the Board to buy tickets to a concert nobody wanted to go to. After much buck-passing the air was finally cleared. Putting Zero Beat together each time is a tough job for everyone involved. The product we hope is well worth the effort, otherwise we wouldn't give up 2-3 evenings a month to produce on schedule. In April however, all rules of ethics no longer apply--you know the result. I promise that next year's issue will cause an even greater furor! Nuff Said.

THE HAMPDEN COUNTY RADIO ASS'N. Inc.
SPRINGFIELD, MASSACHUSETTS

FIELD DAY '81

SERVING NEW ENGLAND'S AMATEURS



The Hampden County Radio Association's Field Day 1981 will celebrate the fifteenth anniversary of the club being the incoming QSL Bureau for the New England states! We hope to operate on all bands. A special QSL card will be sent to all contacts made that weekend. You should see a notice in the June issue of QST. (If it doesn't appear, we'll want to know why.) Stations all across the United States will be trying to contact us. Everyone's help will be needed so we hope to see you'all there!!

Zero Beat would like to receive more biography's of club members. Send them along to the editor and we'll be glad to do any re-writing that's necessary.

AUTOBIOGRAPHY by KLBE

Well, the most interesting thing I've done in the past year is to get married. Thought I was a confirmed bachelor, but no such luck. I work for Monsanto Company as a chemical technician. I was hired more for my mechanical ability than for what I know about chemistry. I've tended to be a JOAT rather than specialized in any one field. I've always lived in the Springfield area and now live on the lake in Southwick. Even as a kid I'd wanted either a mountain cabin or a lake home. So I really enjoy the home QTH. Having been born during the Korean war, I've always liked history. Graduated from AIC in January of '72 (took course overloads and finished in 3½ years) with a bachelor degree. Ran the Outdoor Club there, and went on a lot of hikes with fun people.

Parachuting caught my fancy when I was 16 and over the next eight years I made about 35 jumps. College was boring so I took flying lessons and got my private pilot's license in '68. Haven't done anything with it though. My best friend in skydiving was killed in Vietnam so that took a lot of the fun out of that.

The boy scouts got me into camping which I still enjoy. The Springfield Police Department let me into their auxiliary unit in '71 and I stayed for five years. Used to enjoy the pistol matches because I'd win in the expert class. My Dad taught me to shoot when I was five, and I can still hit it if I can see it. I shoot rifles left handed and pistols with either hand, which was an advantage in combat matches.

Judo is my main hobby today other than ham radio. College gym classes were dull, so to get the required credit I took up judo. Five years later I passed first degree black belt and in '76 passed second degree black belt. There's ten levels but the highest I'll get in my lifetime is third. I started at the Palmer School of Judo but have been at the Westfield YMCA Judo Club for the past five years.

I've worked at a lot of different jobs but the most interesting was as a counsellor in a summer camp in Maine. There's nothing better than summer living in Maine. Well one season I was teaching riflery and judo, and there was a strange guy setting up wires in trees. Turns out he was there to teach "amateur radio". Wanting to show my vast knowledge on the subject, I asked if it was the same as CB! When "Big Al", (the ham) calmed down, I was intrigued. He sat up there talking to ships in the Indian Ocean and countries around the world. I studied the code again, having learned morse and semaphore in the scouts, and squeaked by the written test. The license arrived in October-WALSNJ- "Sho'Nuff, Jeff" as Big Al described it.

Being totally ignorant I went out and bought my first station- a Globe Chief Xmtr and an HQ-180A rcvr. Having no idea what to do next I contacted an old friend, WALCOF, who explained how to put together a dipole. Being as poor (cheap) then as I am now, I split some old TV twin-lead in half and hooked up an antenna for 80

meters. (Gent gave me the coax.) He came over and watched me fall apart when someone answered my one-word-per-minute CQ. Somehow I survived and learned to QSO. At Gent's suggestion I attended my first Hampden County Radio Association meeting by my lonesome; "What a bunch of old fudy-duddies", was my only impression. An incredibly boring evening made worse by being totally ignored.

Started studying to upgrade to general, Big Al wouldn't even let me consider technician. He'd moved back to Texas and I was amazed when we had a QSO on schedule. (Very patiently sent at 2 wpm) After bragging to my new friend WALDNB how I might even pass the advanced I went to Boston and fell on my face. Blew 13 wpm BAD and failed the written exam by about 75%! Chastened but not beaten I went back and eventually got the general. (Flunked the advanced that day) Passed that finally and got the bee in my bonnet to pass the Extra class. To make the story short, I failed the 20wpm three times, finally passing and zipping through the written with only one wrong. Back then you could ask for a call so I said any "W", (none available), "K" (long shot) or "N" call. I thought I'd gotten N1BE and almost fainted to see a K there! Liked the call from the first.

Some time after getting the general I attended the HCRA field day. There I met W1KK, who is super, the future AC1T, WA1ECR, RWU, and others who made it a fun day. I ran for club president because WALPUX agreed to be VP. The rest you know so I won't tell it. Just like to say how great the club members really are!

My main interests in ham radio never get pursued because I don't have the resources. I enjoy field day every year for ham radio fun and VHF Sweepstakes in January for the ham radio competition. CW with a keyer eludes me after using a hand key for five years. I liked going to operate special event stations like KP8USC or KMLCC, but they can't have those anymore. DXing has never held any great attraction. Writing and thinking about amateur radio and where its going interest me. My reading speed is about 4x what everyone else reads at, so I go through books most people never look at. My closing thoughts are that the electronics explosion has only been a firecracker so far. The real bomb will go off during the next five years, and you can't grasp the effect on our lives. Amateur radio will change dramatically and hams will not be in the forefront of the application of sophisticated electronics.

73, Jeff

MISCELLANEOUS

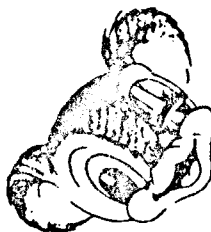
HCRA sideband two meter net. Mondays at 8:00 PM on 144.160 (USB). Contact AC1T for more info..... Send in postage to the QSL Buro now that stamps increased again.... ARRL membership dues go from \$ 18/yr to \$ 25/yr July 1st, 1981. Signup for 2 or 3 years before then with the Club treasurer. You save \$ and the Club gets \$ 1.50!..... Western Mass Net meets every day at 7:00 pm on 3562 KHz. Listen for "CQ WMN" and copy the "Q" signals. Soon you will read it like a book!.....

MEETING NOTICES

MAY 1st 1981
H.C.R.A. Annual FLEA MARKET
AT THE CORNER OF ROUTES 57 & 187
FEEDING HILLS CONGREGATIONAL CHURCH
DOORS OPEN AT 6PM for sellers
7pm for buyers

JUNE 5, 1981
H.C.R.A. Annual Banquet
NCO Club WESTOVER AIR FORCE BASE
TICKETS AVAILABLE FROM ANY
BOARD MEMBER OR AT THE FLEA MARKET

H.C.R.A. RAFFLE JUNE, 5 *****
TIME IS RUNNING OUT GET YOUR *****
RAFFLE TICKETS AND BE READY FOR *****
THE H.C.R.A. RAFFLE OF AN ICOM IC2AT *****
TICKETS AVAILABLE AT THE FLEA MARKET *****



FRANK H. KOZAK
LORRAINE KOZAK

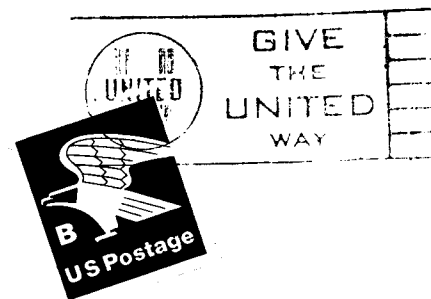
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MAY ZERO BEAT

IF YOUR CALL IS BLUE YOUR DUES ARE DUE

ACIT

11/81