

Zero Beat

Our 39th ARRL affiliated year
Special Service Club

Hampden County Radio Association, Inc.

Serving Greater Springfield, MA

W1NY and the HCRA Score Big in Field Day 1987!

Field Day 1987 will certainly go down in the record books as one of the largest club events ever. It had been talked about for months at the club meetings in an attempt to promote all aspects of Field Day to members and local hams.

We also must not forget the creative work of Art W1KK and crew, who constructed various wire antennas, including a beverage, to help reduce the foreign broadcast interference at night on 40m.

The League has presented the club with a certificate of merit in recognition of our outstanding service to our community on behalf of our efforts.

Plans are already underway for Field Day 1988. Hope to see you there! Pictures of this Field Day will be available for viewing at the September meeting.

Meter Band	Mode	QSO's Logged	QSO's After Dupes	Percent Dupes
80	A1A	142	139	2%
40	A1A	215	209	3%
20	A1A	154	151	2%
15	A1A	13	13	0%
2	Packet	18	17	5%
75	J3E	245	239	2%
40	J3E	1,181	1,006	15%
20	J3E	1,029	904	12%
15	J3E	484	470	3%
10	J3E	303	294	3%
	Totals:	3,784	3,442	9%

Thanks to all the hard work by Stan KA1ZE and Fred N1DPM who chaired this effort, and to the many others who were on hand to make it a success, you'll be seeing the HCRA's score hopefully somewhere in the top ten in the country.

The construction of antennas began at 1400 on Friday, as per Field Day rules. This would allow W1NY only 24 hours of operation starting at 1400 on Saturday and concluding at 1400 Sunday. The highlight was the two element 40m quad up over 30 meters! Other antennas included a four element mono-bander on 20m which was up 25 meters; mono-band yagi antennas on 15m & 10m, and a dipole on 80m. The novice station was also equipped with separate mono-band yagis on 15 and 10 meters, as well as a dipole for 40m.

Including the Novice station operating under the call sign KA1QAH, the club effort had over 4,000 QSO's before dupes! This was accomplished using under 150 watts of power; in fact, no station used more than 125 watts output! Antennas really do make or break the station. A complete breakdown of the W1NY operation can be found in the adjacent table.

The stations were setup Saturday in town buildings, trucks, vehicles, and mobile homes. All power was supplied by emergency generators, some of which were provided by Agawam Civil Defense. A fine lunch was served on the grounds for anyone in attendance on both Saturday and Sunday. You may have seen the operation covered on the local news broadcasts by both WWLP and WGGB. Additional newspaper articles covered the club's Field Day effort.

Annual Banquet Prizes

At the June Annual Banquet three prizes were given by drawing. In addition to the many tickets received via mail, many hams attending took advantage of the last minute chance to purchase tickets.

First place was a Kenwood TH-31BT, which was awarded to Yorke K1BXE from Hampden. Second place was a \$50.00 gift certificate at HRO awarded to Bob KA1KPH of Feeding Hills. Third place was also a \$50.00 HRO gift certificate which was claimed by Dick KA5QLD from Westfield.

The club also had a number of ARRL license manuals which were left over from the previous classes, so additional drawings were held to distribute those books. Those prizes were only awarded to those in attendance, who had a chance to select which manual they desired.

The Treasurer indicated that we did a little better than break even, so if there's interest we may do it again next year! What would you like us to offer?

Special Summer Issue!

903 MHz Amp

Ken W1RIL, who was down for the 903 MHz meeting last year, has sent us five pages of information on an amp for 903 MHz using two 7289's. The foundation for this amp first appeared in Ham Radio in March, 1970, where you can obtain additional information. W1RIL indicates that his amps are somewhat scaled to W2CQH's design with additional reactive loading in the plate cavity and changes in the output circuit details, including an additional sliding drawer to facilitate easy loading adjustment and waveguide beyond cutoff air ducts.

With 10 watts in he gets 125 watts out; a gain of greater than 10 dB. The efficiency is approximately 40 percent. Ken says in his letter that he "will be building two more of these amps shortly and will at that time make up full size drawings of each individual plate. Anyone wishing these can have them for an SASE."

Contact KA1KPH, P O Box 17, Feeding Hills, MA 01030 for copies of Ken's current plans, or send an SASE to Ken Schofield W1RIL, 21 Forest Dale Rd, Paxton, MA 01612 for his final drawings.

Bicentennial

The FCC has approved the ARRL's request to allow special commemorative call signs in celebration of the Bicentennial of the US Constitution. Specifically, the proposal asked that amateurs operating in their traditional call sign districts be authorized to replace the numeral corresponding to the order of entry into the Union of the state from which the operation takes place. The proposal also requested that pre-registered Amateur Radio clubs replace the numeral in their call with the numeral "200" for a designated one-week period corresponding closely to the date of entry of their state into the Union.

At the National Convention, FCC representatives said that portion of the ARRL request pertaining to pre-registered Amateur Radio Clubs had been granted. The section pertaining to individual amateurs was denied, according to these FCC officials. At this time, the actual Order has not been seen, and no further information is available.

New One

Chod Harris VP2ML, Editor of *The DX Bulletin* reports that we may have a possible new one for the DXCC Countries List! The Republica Arabe Saharai Democratic, prefix S0. The Spanish Lynx DX Groupe will operate as S0RASD August 6 thru 16 on 3.795, 7.095, 14.195, 21.295, and 28.595 MHz on SSB. They can also be found 25 KHz up on CW, and will have a third station to train new operators.

Kenwood has donated a complete station that will be left behind. The group is requesting donations; you can write to the Lynx DX Group, P O Box 351, 26080 Logrono, Spain.

There will be nine operators, including OH2BH. If you work this station QSL to EA2JG, Arseli Etxeguren, Las Vegas 81, 01479 Luyando (Alava), Spain.

RASD was known as Rio de Oro, and is on the coast of what was the Spanish Sahara, before Spain gave up its claim to it in 1975. After Morocco occupied the area, Rio de Oro (EA9) was deleted from the DXCC countries list. The Lynx DX Group is presenting documents to the DXAC to attempt to prove "separate government." Don Search W3AZD of the League said that the old EA9 might be reconstituted (as happened with Singapore 9V), or a new country added to the list, or, of course, nothing at all. Chod recommends that you don't miss this one!

VE Session

The HCRA completed the second of four Exam Sessions scheduled for this year on Saturday, June 13 at the Hampden Wilbraham Regional High School (Minnechaug), Wilbraham, MA. Six candidates were examined with Rusty Hack KB1XD and Bob Vanderscoff KB1TI achieving Amateur Extra. Bill Pichette made Novice and also obtained code credit for 20 WPM. Scott Cohen KA1QAS passed the new element 3A which gives him Technician privileges. Congratulations to all!! The officiating VE's were: Bob KA1KPH, Bill NJ1E, and Yorke K1BXE. Ned NB1R and Betty WB1FIQ assisted. The next exam session will be held on Saturday, September 13, 1987 at 08:30 at Minnechaug.

For those who can't make the scheduled exam sessions, the HCRA will make special arrangements. Contact a Board member, write, or give Yorke a call and we'll work up an exam session for you.

de K1BXE

Thanks

ZERO BEAT is the newsletter of the Hampden County Radio Association, Inc., and is published monthly from September thru June. Contents of *ZERO BEAT* may be reprinted provided *ZERO BEAT* and the author are duly credited. Please note that some articles appearing in *ZERO BEAT* may be copyrighted; consult the author for reprint permission. Your *ZERO BEAT* editor is Bob McCormick, KA1KPH. All members are welcome to place free Wanted or For Sale adds in *ZERO BEAT*. Send your copy to the club address.

The HCRA would like to thank the following contributing editors and sources, who have brought you this month's issue: *The ARRL Letter*, KA1KPH, CMARA *Ham Chatter*, K1BXE, *The DX Bulletin*, W1RIL

Wanted

Antenna Tuner 200 - 1,000 watts. Please contact Doc Webb, W1HOD, at area code (413) 538-8881

Work OA7I

Herb Fairbanks KC1CN, ex WA1EVV, reports that Sister Ela, OA7I, who is stationed in the high mountains of Peru, is collecting QSL cards. Anyone having 20m facilities should try 14.330 MHz (primary) and 14.200 MHz (secondary) at 5:30 PM to make contact and to send a QSL card to the Sister.

de CMARA

A list of the recently elected board of directors will appear in the September issue of *Zero Beat*

Radio Canada

Last summer KA1KPH, NC1B, and the XYL visited NB, NS, and PEI in Canada. Many of you may be aware of Radio Canada International's shortwave transmission site in Sackville, New Brunswick. If you ever have a chance to visit maratime Canada, be sure to stop by for a tour of the facility. For those of you who are not so fortunate, here's some information on Radio Canada.

Radio Canada International transmits in 11 languages via shortwave to countless listeners in Eastern and Western Europe, USA, Mexico, Central and South America, the Caribbean, Africa, and the Middle East. They have also introduced a 12th language through a weekly program service in Japanese that is fed from Vancouver by satellite to Tokyo.

Virtually all international broadcasting organizations are designed to serve national interests in one way or another. Some countries employ their short wave services in a strictly propaganda role, with direct governmental control of content. The Canadian Government's Department of External Affairs forms the basis for determining RCI's target area and language priorities, but the programming and editorial policies are wholly the responsibility of the CBC.

RCI has over 200 employees in three areas: Shortwave Programming, Recorded Program Services, and Engineering. The Engineering group looks after frequency management, the highly complex business of fitting RCI's needs into the system of international frequency allocation. They manage the transmitter plant at Sackville and a monitoring station in Stittsville, Ontario. The monitoring station, which exchanges reception data with a group of world broadcasters, provides RCI with the necessary information with which to evaluate the efficiency of the RCI signal.

The transmitters are located in a marshland in New Brunswick with the type of soil that provides an excellent reflective base for the effective transmission of shortwave signals. There are eight transmitters, three of 100 kW and five of 250 kW. Two of the lower power transmitters are used for domestic programming to northern Québec and Canada. The 250 kW transmitters are controlled by a computer, into which is entered all the pertinent info of a given schedule well in advance of the

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actual time of transmission. Over 100 different functions (such as transmitters on & off; high power & low power, etc.) can be pre-scheduled for these five transmitters up to 24 hours before the time required. They are automatically tunable to any frequency within the range of 3.95 to 26.5 MHz. The tuning operation takes 12 seconds or less to any point within this operating range. So much for my TS-940..... I wonder if we could operate a contest from there?!

The eight transmitters are connected to the various antennas by a switching matrix in a building separate from the main transmitting building. All of the antennas at Sackville are of the type known as "curtain arrays", suspended from steel antenna towers. This type of antenna can be used to transmit in either of two directions, 180 degrees apart, by means of a simple switching operation. The current antennas are on beam headings to Africa, Europe, Central and South America, the Caribbean, USA, Mexico, and Northern Canada. There are over a dozen arrays covering most of the world and all shortwave bands!

Programming is actually produced in Montréal and is sent to Sackville over special microwave circuits, a distance of about 1,000 km. In addition, RCI has agreements with the BBC in London and Deutsch Welle in Germany. BBC and Deutsch Welle programming is rebroadcast by RCI from Sackville for North America. In exchange, these organizations relay RCI programming for Eastern Europe from bases in Daventry, England and Sines, Portugal.

Radio Canada International will be glad to put you on their mailing list and send you program schedules free of charge. Write them at: Radio Canada International, P O Box 6000, Montréal, Canada H3C 3A8. Using the shortwave broadcasters to determine band conditions is often a good way to determine the maximum usable frequency (MUF), but remember that many broadcasters may be transmitting from multiple locations, so a program guide is very helpfull.

de KA1KPH

**Work W200NY
for the
Bicentennial!**

New OP Manual

The new edition of the 1987 *ARRL Operating Manual*, edited by Bob Halparin, K1XA, one of the ARRL HQ staff, contains more than *three times* the material offered in past issues. That translates into about 700 pages of completely updated information and 17 all new chapters, covering everything from shortwave listening to satellites, from DXing to digital. Among other things, this new edition provides nuts-and-bolts advice on contesting, DXing, net controlling, how to talk to OSCAR, packet radio, and much, much more.

New material also includes awards from around the world in full color and how to qualify for each one of them, how to manage a DXpedition (in addition to tips on working new ones from your home station), worldwide band plans and frequency allocations, and never-before-available references, such as sunrise/sunset times for every DX country, Great Circle and regional maps, 8 different computer programs for logging and duping your contest QSOs, and long-term propagation paths from the continental US to 17 popular DX locations.

The HCRA will have a limited number of copies of the *ARRL Operating Manual* at the September meeting available at a special price! If you would like to reserve a copy for pickup in September or obtain one in advance of the meeting please send a post card or letter to the club address.

Nets

Western Mass Slow Speed (traffic) net meets Monday thru Friday at 7:30 PM on 3.562 MHz

Many ARES nets meet on Sunday morning. Some are: On 3.937 MHz at 8:30 AM, on K1FFK/R 146.91 MHz and KA1KPH/R 449.175 MHz at 9:00 AM, on K1FFK/R 53.23 MHz at 9:15 AM. Please check in!

Western Mass Traffic Net (cycle 2) meets at 1:00 PM Monday thru Friday on K1FFK/R 146.91 MHz

Western Mass Phone Net (SSB) meets Monday thru Saturday at 6:00 PM on 3.937 MHz

Western Mass (CW) net meets evenings at 7:00 PM on 3.562 MHz

Please inform us of your net schedules, and we'll list them here!

1987			Dec	1-2	Yankee Vernon test
Aug	1-2	UHF contest		4	HCRA meeting
	30	NoBARC flea market		4-6	160m contest
Sep	11	HCRA meeting		6	YCCC meeting
	12	VE exam Wilbraham		12	VE exam Wilbraham
	12-14	VHF contest		12-13	10m contest
	26-27	CQ WW DX RTTY	1988		
	27	NoBARC meeting	Jan	8	HCRA meeting
Oct	2	HCRA meeting	Feb	5	HCRA meeting
	4	YCCC meeting		6	YCCC meeting
	17-18	Boy Scout Jamboree	Mar	4	HCRA meeting
	24-25	CQ WW DX Phone	Apr	1	HCRA meeting
	25	NoBARC auction		9	YCCC meeting
Nov	6	HCRA meeting	May	6	HCRA meeting
	7-9	Sweeps CW	Jun	3	HCRA meeting
	21-23	Sweeps SSB		5	YCCC meeting
	28-29	CQ WW DX CW			
	29	NoBARC meeting			

Mark down these dates!

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

Please note that some meetings this year are not scheduled on the first Friday due to holidays, etc.

Tidbits

The cutoff date for the next issue of *Zero Beat* is 30-Aug-1987. Please have all materials in to the club mailing address well before that date, as it does take a few days to forward the info to the Editor.

New Novices who have 220 MHZ equipment are encouraged to try two local repeaters. In East Longmeadow on 224.98 is WA1PLS/R and in Westfield N1DUY/R on 224.90

Congrats to Jeff K1BE and XYL; a recent addition: Douglas Charles, no call yet...

The Board is interested in topics you would like presented at one of the meetings this year. Write to the club address or see any Board member.

The HCRA plans to sponsor (yes, again) license classes this fall. We are looking for individuals who can act as instructors. In the past four years we have used the facilities at the Agawam High School. If you are interested in a class we'd like to hear from you, also!

The September meeting topic will be announced in the September issue of *Zero Beat*.

The August issue of *Popular Communications* carries "The Ham Column" by Dave Newkirk AK7M of the League. Dave's column will be a regular feature; check it out!

The ARRL membership continues to grow! Now over 146,500 strong, the present rate of growth will put the League with more

licensed amateurs than any time in League history by early 1988.

NoBARC flea market starts at dawn on 30-Aug-87 at the American Legion field on Route 9 in Dalton, MA. Use K1FFK/R 2m 146.91 MHz for more info and directions.

Because of the wealth of information we had on hand, and a few messages we wanted to pass along, a special issue of the newsletter was produced. Enjoy your summer!

See you in
 September!

Hampden County Radio Association, Inc.

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