

# ZERO BEAT

HAMPDEN COUNTY RADIO ASSOCIATION, INC.

SPRINGFIELD, MASS.

ARRL AFFILIATED, 32nd Year

JANUARY, 1981

## PRESIDENTS MESSAGE FOR THE COMING YEAR

As we bid farewell to the thoughts and memories of 1980, we also look forward to the mysteries and challenges of 1981. At this reflective time, I would like to expound on some of these mysteries and challenges facing us in 1981.

The mysteries for most of you lie in what your club will be doing for you in the coming year in the way of speakers, and events. General topics were presented in the December 1980 issue of Zero Beat and will be discussed further in this column.

The January meeting will be on January 9 and will feature Stu Leland, the writer of the ARRL book "Hints and Kinks". He will present methods of home brewing small items which the average ham could build at a very low cost and set a maximum amount of use from.

The February meeting will be on February 6 and feature a world renowned speaker; Bill Poellnitz, K1MM who has traversed the globe more than some members of the diplomatic corp.

He will present a full slide presentation on the Spratly Island expedition. I have personally viewed this presentation and found it equally informative and entertaining. The presentation will be enjoyed by all whether they have an interest in dx or not. Many hams have paid to see this presentation; you have the opportunity to enjoy it at no cost.

The March meeting will be on March 6 and feature Bill Shaheen, N1CQ. Bill is a broadcast engineer for a local television station and will present the practical uses of test equipment for the average ham. Bill has a knack for being able to explain technical subjects such as test equipment in a manner which allows the average person to fully appreciate the presentation.

The April meeting will be held on April 3 and will feature Tom McMullen, W1SL, the editor of one of the national ham publications. Tom will speak on a subject never before presented in this area; microwave ssb. Yes, you read correctly, microwave ssb. You have seen microwave transmissions demonstrated at an H.C.R.A. meeting but these were only the tip of the icebergs. At that time only pulse modulation (similar to radar) was possible. Instability precluded the use of ssb at these frequencies. But now there is SSB; BE THERE.

May will feature our annual Flea market on May 1. The Flea market requires no further comment since it has been so popular for so long.

June will feature our annual June banquet. It will be held on June 5 at the N.C.O. club at Westover Air Force Base.

The banquet will feature an excellent meal, entertainment and the raffle drawings for the Icom IC-2AT handheld, Rinsco Ranser and U.S. callbook. This should prove to be an enjoyable time for all.

At this point I would like to present some of the

challenges facing the officers, board of directors and the general membership.

Two immediate challenges face the club as a whole in January 1981. The most immediate is membership renewal. There are many members whose membership has expired in the months of October, November and December of 1980 who are receiving Zero Beat this month. They are receiving this issue because we felt that the renewals may have been overlooked due to the pre-holiday rush of November and December.

As a result everybody should check the second line of their address label on the front of this issue of Zero Beat. If the second line of your label is highlighted in blue, your membership has expired on the date (month & year) shown on that line.

Memberships may be renewed at the January 9 meetings or by mail. If you wish to renew by mail, please send a check for \$7 and the mailing label from this issue of Zero Beat to the club treasurer before January 15. The treasurer's address is as follows:

Grae Stoddard  
15 Chestnut Circle  
West Suffield, Ct. 06093

The second challenge for January 1981 is a more pleasant one. This challenge is the ARRL January VHF contest. This contest is different from all other contests because it includes a club competition. We are asking all club members who have VHF gear to make an effort to participate in this contest and turn their score in for the Hampden County Radio Association. The contest will take place on January 17 and 18. Loss are available in this issue of Zero Beat.

In closing, on behalf of the officers and the board of directors, I would like to wish one and all a very happy and prosperous new year.

*RON*

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FOR SALE: Muffin Fans, \$10.00; Wattmeter, dummy load, 0-150 watts, \$50.00; RT-68 Jeep radio transceiver and power supply, covers 38-54 Mhz, 1 or 14 watts FM, with jeep rack, speaker, microphone, Schematic. WORKS FB! use on 6 meter FM. \$40.00; Hewlett-Packard Digital Voltmeter, \$75.00; Hewlett-Packard VTVM \$50.00; Aluminum canoe 17' poor cx, \$150.00 Jeff K1BF 569-6739 Evenings

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EDITORS COMMENTS:

I WOULD LIKE TO THANK OUR FORMER EDITOR PAUL KRESS FOR HIS FIND WORK AS EDITOR OF ZERO BEAT AND WISH HIM WELL IN HIS NEW JOB. HE WILL BE MISSED BUT PROMISES TO WRITE AN ARTICLE FROM TIME TO TIME, SO PAUL I AM WAITING TO HEAR FROM YOU.

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ZERO BEAT IS YOUR VEHICLE TO MAKE YOURSELF HEARD LETS HEAR FROM YOU ALL IN 1981

K1LCRG Clear but listening

200,000 POINTS! LET'S DO IT!

Once again the VHF Sweepstakes are upon us! Hams all over the U.S. will be competing for scores on the VHF and higher bands. Last year the HCRA took third in the country with over 140,000 points, and by a wide margin, the #1 multi-op station, WA1RWU. Our small club competes against some real biggees and this is our year to win. Our goal is 200,000 points, which will break the 1980 club record of 140,000. We can do it if everyone gets on the air. Even a small score makes a BIG difference to the club total.

This year's contest should also produce higher individual scores due to the increase in club members and activity. Those with the multi-mode rigs will have a good chance to take full advantage of their capabilities. What better time to try out that new rig, pre-amp, antenna system or whatever? Members who are limited to FM will be surprised by the number of contacts they can make. (See the December QST page 94 for frequency and time restrictions.) Anyone who wants to operate in the contest but does not have equipment should contact WA1RWU or WA1ECR. We will make every effort to fix you up with something. Those who have surplus equipment they would not mind lending out, let us know. There will be more than one multi-op efforts within the club and if you'd like to help out, we're sure it'd be appreciated.

Those who are limited to the time they can devote to the contest, should make a concentrated effort to get on at the same time. Six to ten pm on Saturday night and three to six pm on Sunday might be ideal. Remember, even if you make only three or four contacts for the club, this can literally mean thousands of points with the club multiplier. But the log sheets must be sent in! If you work W1NY you can get the club station QSL. And if you work 25 club members you can get the "Worked 25 HCRA Members" award!

Log and summary sheets are included in this issue of Zero Beat. Additional logs, summary sheets, and check sheets will be available at the January meeting, or send an sase to K1BE. So, let's get on the air January 17 and 18 and make 200,000 points in the 1981 VHF SWEEPSTAKES!!!!!!

VHF SWEEPSTAKES JANUARY 17 and 18th, 1981

Saturday-----1800 utc to 0400 utc on Monday-----

All you do is send each QSO a consecutive number, starting with #1, an RS (T), and the section you're in. (Most of us are Western Mass) It's easy! It's fun!

For equipment, other info:  
Frank Potts, WA1RWU  
657 Springfield St.  
Feeding Hills, Mass 01030  
Phone: 786-6045

Return your logs and summary sheets to Frank IMMEDIATELY after the contest. He'll double check them, and send them into the ARRL.



Extra log, dupe, and summary sheets:  
January HCRA Meeting  
or  
Jeffrey J. Duquette  
P.O. Box 346  
Southwick, Mass 01077  
Phone: 569-6739

WHATCHA MEAN, JUST ON DIRECT???

"How many stations can you work on direct on VHF?" "Don't I need a repeater to QSO with someone who's not next door?" "All I've got is one watt, who'd ever hear me?" The excitement that awaits these hams! Heck, you'll talk to hundreds of stations on direct with one watt. And what's even better is they're all dying to talk to you! As the VHF Sweepstakes comes down to the wire, everybody is looking for new blood, so watch what happens to the ham with his one watt! He finds himself more popular than the only girl at the boy's school dance.

Is it just line-of-sight QSOs? No way, Jose! If you've had that multi-mode super-duper rig only on repeaters since it found a home with you, a thrill awaits you. SSB/CW or FM propagation occurs many different ways on VHF. Tropospheric bending occurs when a warm air mass overruns a cold air mass. An inversion occurs, and dog-xray opens up to surprising coverage. Check the morning newspaper and evening news shows for high pressure areas overtaking low pressure areas, or for occluded fronts. Aim the antennas along the trailing edge and hear those far away people!

Sporadic E skip occurs when intense patches of ionization occurs. Solar flares produce these and they have been very intense of late. AC1T has been working Europe consistently. Hams are predicting the best conditions on record for this years sweepstakes. Listen to WIAW and WWV for the solar index or news of a solar flare. Or if you start hearing "G" calls 599++ on six meters, suspect an opening. F layer openings will be even more spectacular and are quite possible this year.

If a strange fluttering cw signal or Donald Duck sounds barely intelligible on voice, look out the window for aurora. Point that beam north for the thrill of bouncing signals off the Aurora Borealis, or Northern Lights! QSOs to Washington State are possible from Massachusetts. A 599A report means the strange fluttery sound of auroral propagation. Once heard it's not forgotten.

Transequatorial propagation occurs along the north/south line of the sun. Did you ever think you'd work South America on six meters? Good chance for TE with our present sun cycle. Tropospheric scatter on 2 meters cw may go up to 500 miles. Signals are fluttery and weak, but what some people won't do for another multiplier!

Meteor scatter during the sweepstakes is mostly for experienced operators. The Cygnids meteor shower is on January 17th, with the best times and directions listed

here:  
0600-1100 Southwest  
1100-1300 South  
1300-1800 Southeast  
etc.

Quick signaling with high speed cw, (some SSB), and good antennas and receivers help. If the band is dead, why not give it a try? A meteor created millions of years ago burning an ionized path through our atmosphere is a neat

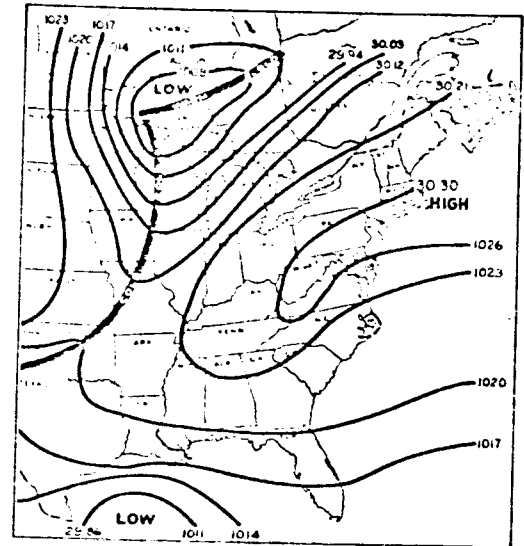


Fig. 2-3—A readily available guide to tropospheric propagation conditions is a weather map, showing pressure distribution and frontal lines. On the October day that this map appeared in eastern newspapers, the 2-meter band was open from Nova Scotia to at least North Carolina for several hours.

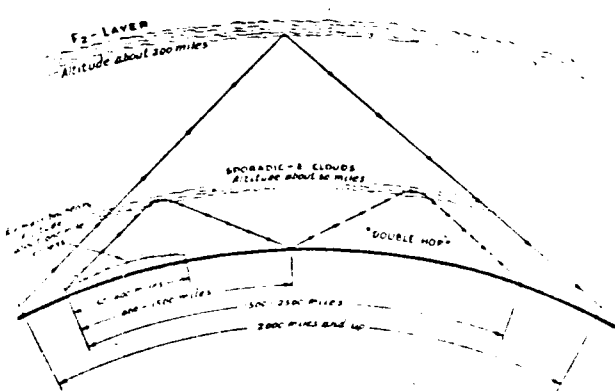


Fig. 2-2—The principal means by which v.h.f. signals may be returned to earth, showing the approximate distances over which they are effective. The F<sub>2</sub> layer, highest of the reflecting layers, may provide 50-Mc. DX at the peak of the 11-year sunspot cycle. Such communication may be world-wide in scope. Sporadic ionization of the E region produces the familiar "short skip" on 28 and 50 Mc. It is most common in early summer and late December, but may occur at any time, and regardless of the sunspot cycle. Refraction of v.h.f. waves also takes place at air-mass boundaries, making possible communication over distances of several hundred miles on all v.h.f. bands. Normally it exhibits no skip zone.

Continued-

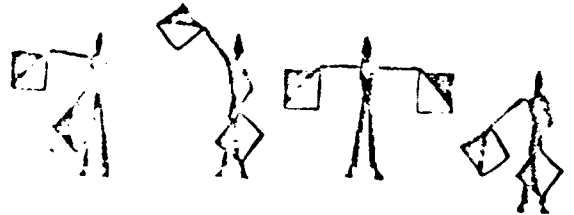
thing to bounce your signals off of! Moonbounce is another way to get multipliers, but how many of us have the time to put a NASA installation in the backyard? (The XYL might have a few objections!)

So there are quite a few ways to get your score way up. Which HCRA member will work all 50 states during the sweepstakes? A special prize for anyone who does! (QSLs required) A lot of our club members will sure be trying!!!! See you on the air January 17th and 18th.....

TIDBITS

K1EPI on channel 22 news trying to contact Italian earthquake victims for local families. WB1CJH, W1KK, WB1GLZ and other club members also trying to help. W1YI

used RTTY to copy the casualty list...Phase III OSCAR launch date set for February 24, 1982...W1UD/RPT now W1GZ/R...KA1BNN now Westfield Radio Officer...K1BXE putting up six meter antennas...K1GXU working on improving his television reception...KA1ZUH had his two meter rig stolen...WMTN on 3722 at 8:30 pm daily.....



**\*\* FOR SALE \*\***

ME 26/DU MULTIMETER  
MEASURES AC OR DC VOLTS AND  
RESISTANCES AT FREQUENCIES FROM  
20 HZ TO 700 MHZ, AC VOLTS  
SCALE: 0 TO 1,3,30,100 AND 300  
DC VOLTS RANGE: 0 TO 1,3,10,30,100,  
300 AND 1,000 VDC  
RESISTANCE: 0 TO 500 MEGOHMS IN 7  
RANGES  
DC INPUT IMPEDANCE: 122 MEGOHMS  
AC INPUT IMPEDANCE: MORE THAN 1 MEG  
AT 100 MHZ.  
COMPLETE WITH PROBES  
115 VOLTS POWER  
PRICE: \$50.00  
CONTACT: K1BE \*\*\*\*\*569-6739\*\*\*\*\*

LICENSE CLASSES AND CALL SIGNS  
DESIGNATION INFORMATION

CLASS	CALL	EXAMPLE
NOVICE	2X3	KAIHAM
TECH *	1X3	NIHAM
GENERAL	1X3	NIHAM
ADVANCE	2X2	KAIHI
EXTRA	2X1	ACIC

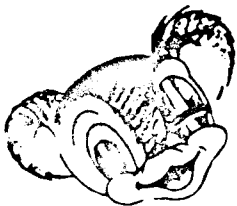
NOTE NO AMATEUR IS REQUIRED TO CHANGE HIS CALL EVEN IF YOU MOVE TO ANOTHER DISTRICT. NO SPECIAL REQUESTS MAY BE MADE FOR A SPECIFIC CALL. CALLS ARE ISSUED SEQUENTIALLY.

\* WB1FJK REORTS THAT TECHNICIANS CAN APPLY FOR A 1X3 CALL

\*\*\*\*\* QSL BUREAU REMINDER \*\*\*\*\*

SEND IN A SEPERATE ENVELOPE TO THE BUREAU FOR ALL THE CALL YOU PREVIOUSLY HELD

\*\*\*\*\* SEE FEBRUARY QST FOR MORE DETAILS\*



FRANK H. KOZAK  
LORRAINE KOZAK

*"Quick As A Wink"*

PRINTING & SALES CO.  
TEL. (413) 736-8184

454 MAIN STREET  
WEST SPRINGFIELD, MA. 01089

FREE PARKING  
AT OUR DOOR

Do not write above this line.



Call Used \_\_\_\_\_

# VHF Sweepstakes

ARRL SECTION \_\_\_\_\_  
or COUNTRY \_\_\_\_\_

Band	Contacts	Points	Mults.
50 Mhz.	X 2 =		
144 Mhz.	X 2 =		
220 Mhz.	X 4 =		
432 Mhz.	X 4 =		
1296 Mhz.	X 8 =		
Mhz.	X 16 =		
Mhz.	X 16 =		
TOTALS	QSOs		

CLAIMED SCORE \_\_\_\_\_

SCORING: \_\_\_\_\_ QSO POINTS  
 X \_\_\_\_\_ MULT.(sections + 10)  
 = \_\_\_\_\_ CLAIMED SCORE

- Single Operator Station
- Multioperator Station (show calls of ALL operators, loggers) .....

Club participation?  Yes ~~NO~~  
 If yes, print the name of your ARRL Affiliated Club: HAMPDEN COUNTY RADIO ASSOCIATION

Equipment Description:

Transmitter ..... Receiver .....

Antennas .....

*"I have observed all competition rules as well as all regulations established for amateur radio in my country. My report is correct and true to the best of my knowledge. I agree to be bound by the decisions of the ARRL Awards Committee."*

I am a member in good standing of the Hampden County Radio Association.

Date ..... Signature ..... Call .....

Note your soapbox and other comments. Enclose your photos, as well as your SS logs and check sheets, and mail promptly to: ARRL Communications Department, 225 Main Street, Newington, Connecticut 06111.

### MULTIPLIER CHECK-OFF LIST

1	2	3	4	5	6	7	8	9	0	VE
Conn	ENY	EPa	Ala	Ark	EBay	Ariz	Mich	Ill	Colo	Mar-Nfld
EMass	NLI	Del	Ga	La	LA	Ida	Ohio	Ind	Iowa	Que
Me	NNJ	MDC	Ky	Miss	Org	Mont	WVa	Wisc	Kans	Ont
NH	SNJ	WPa	NC	NMex	SBar	Nev			Minn	Man
RI	WNY		NFla	NTex	SCV	Oreg			Mo	Sask
Vt			SC	Okla	SDgo	Utah			Nebr	Alta
WMass			SFla	STex	SF	Wash			NDak	BC
			Tenn	C.Z.	SJV	Wyo			SDak	VE8
			Va		SV	KL7				
			W.I.		Pac.					

(CROSS OFF EACH NEW SECTION AS WORKED.)

RETURN LOGS IMMEDIATELY TO:

FRANK POTTS, WA1RWU  
657 Springfield Street  
Feeding Hills, Mass 01030

OR

ARRL - Communications Dept.  
225 Main Street  
Newington, Connecticut 06111

Print or type:

NAME: \_\_\_\_\_ CALL: \_\_\_\_\_

ADDRESS: \_\_\_\_\_



MEETING NOTICE

JANUARY 9, 1981

FEEDING HILLS  
CONGREGATIONAL CHURCH  
CORNER ROUTES 57 & 187  
FEEDING HILLS MASS.

8 PM

SPEAKER: STU LEELAND  
FROM THE ARRL

ARRL BULLETIN NR 131 FROM ARRL HEADQUARTERS  
NEWINGTON CT DECEMBER 9, 1980 TO ALL RADIO AMATEURS BT

FCC has announced Phase Three of its amateur call sign assignment system, beginning with amateur applications received by the Commission on or after December 15, 1980. Licensees who do not already hold a call sign reflecting their class of license may request a call sign change. All call signs are selected by the Commission, and requests by amateurs for specific call signs will not be honored. If you already hold a call sign reflecting your class of license, you are not eligible for a call sign change unless you are changing your mailing address to a new call sign district. All amateurs have the option of keeping their present call signs under all circumstances, even if moving to another call sign district or upgrading to a higher class license. An unexpired secondary station call sign may be requested by its licensee as the primary station call sign at any time before expiration of the secondary station license. Effective with Phase Three, all amateur applications must be made on the new August 1980 version of the FCC Form 610. Do not use obsolete 610 Forms to request call sign changes or to apply for a higher class license. Details will appear in February QST. New 610 Forms are available from ARRL Hq. A self addressed envelope will be appreciated AR

Latest Bulletin mailed to OBS was NR 122.

Hampden County Radio Association, Inc.  
Ray Morin, KALCRG, Editor  
97 Brookhaven Drive  
East Longmeadow, Mass. 01028



FIRST CLASS MAIL

[REDACTED]  
AC1T 11/81  
[REDACTED]  
[REDACTED]

JANUARY, 1981 ZERO BEAT

YOU HAVE REASON TO BE BLUE IF YOUR CALL IS BLUE YOUR DUES ARE DUE