

ZERO BEAT

HAMPDEN COUNTY RADIO ASSOCIATION, INC.

Springfield, Mass.

ARRL Affiliated, 31st Year

February, 1980

HAMPDEN COUNTY RADIO ASSN.

Club Meetings

Feeding Hills
Congregational Church
Corner Routes 57 and 137
Feeding Hills, Mass.

February 1, 1980

Harry Joubert, W1WFR, and Ted Scott will give a demonstration on RTTY and computers.

March 7, 1980

George Woodward, W1RR, from the ARRL will discuss narrow band voice modulation (NBVM).

Also coming is the annual flea market and the June banquet. Watch this column for more info.

OFFICERS AND DIRECTORS

Have you ever wanted to find a club officer or director to give that person your opinion or to ask a question? You knew their names and calls but you couldn't remember what he looked like! Your problems are over...

Starting with the February meeting all officers will wear a red ribbon on their badge and directors will wear a blue ribbon as a means of identification.

Now I know who you are, you rascal!

League Membership



Your Treasurer, Paul, W1ZKT, has membership applications for the ARRL. Since we are a league affiliated club you can join the league thru HCRA and the club in turn will receive a portion of your league dues.

ICELAND ON 6 METERS

As I write this article, the high level of sunspot activity has triggered some spectacular openings on the six meter band. For a four week period, running from Thanksgiving until mid-December, six meters was open into Europe on almost a daily basis. Furthermore many openings to the west coast, the mid-west and Alaska have occurred, along with a brief, one day opening into Hawaii and Japan.

You may wonder why I am writing an article two months after the activity has subsided. Its purpose is not to give a daily report of propagation on six meters-conditions were well known to those active on 50 MHz. Its purpose is to show that being in the right place at the right time - luck more than anything else - can produce a series of events which may never again repeat themselves, at least for this operator!

Some background information is necessary to set the stage for the event. In the U.S., Canada, Central and South America, and practically all other countries in this region, the six meter band is exclusively amateur. This is not the case in Europe. There, six meters is reserved for television channel 1 (have you ever wondered why U.S. television sets start with channel 2?). Amateurs are completely banned from transmitting on six meters in 98% of all European countries. The remaining 2% of the countries will grant special, highly restricted, six meter privileges only after application is made for a special permit.

Continued on page 3...

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Jack Dumont	K1ZQB

Circulation

Duke Dugas KALDTH 732-2534

EDITORIAL

We are fortunate in the Greater Springfield area to have three fine amateur radio clubs; the Hampden County Radio Association; the Provin Mountain Amateur Repeater Association; and the Mount Tom Amateur Repeater Association. We do not, however, have inter-club communications to any extent, and your editor proposes that the officers of the three clubs meet to establish better communications among these three groups and join together in the common purpose of furthering amateur radio and service to the community.

Lest there be some misunderstanding, your editor is not proposing a merger of clubs but only common effort for a common purpose. Competition is healthy and rivalries encourage each and everyone to do their best.

Please write your suggestions to your editor of ZERO BEAT, INTERMCD, or PROVIN MOUNTAIN ECHOS.

OPPORTUNITIES AVAILABLE

Zero Beat is looking for a staff.

We need reporters who will provide a general interest article each month about people in the club or about things affecting ham radio; we need technical writers either to provide technical information to our club members or to answer technical questions; we need a circulation manager who can assemble and mail Zero Beat each month; we need typists who can pick up copy, type the material and return it to the editor in a timely fashion. We also need help with printing approximately 250 copies of the paper each month. An artist and photographer would also be welcomed with open arms.

If you are willing and able to help maintain the high standard of excellence established for this award winning paper by our previous editor, Jeff Duquett, K1BE, please call me at home any evening in Westfield, 568-8291.

Paul Kress, WALZKT
Editor

CO ARTISTS

Your editor is in need of an artist or someone with artistic ability to provide renditions of proposed club logos. Both line drawings and colored renditions are desirable. Join the list of volunteers or volunteer your XYL, OK, kids or sweethearts. We are non-discriminatory.

LEAGUE OPENINGS

The American Radio Relay League has openings for technical and non-technical jobs. This may be your opportunity to get into ham radio for a vocation. If you are interested please contact:

LAIRD CAMPBELL, W1CUT
at league headquarters in
Newington, Connecticut

Iceland On 6 Meters (Cont'd.)

How, then, is it possible to work 15 or 20 countries in Europe, as many people have done? Nothing bars a person from receiving on six meters. Many European hams have home-brewed simple receive converters.

To work a DX station on six meters, tune your 10 meter receiver to the region of 28.880 to 28.900 MHz. If 6 meters is open, you will hear stations calling "CQ crossband", in this 10 Kc range. They will tell you where on 6 meters that they are listening. Operation of this type is known as crossband. If you have a separate 6 meter transmitter and 10 meter receiver, full duplex operation is possible. Again, when operating crossband of this type, you transmit on 6 meters, but receive the DX station on 10 meters.

When I was operating 6 meters on December 16, only 2 European stations had permission to transmit on 6 meters. They were EI2W in Dublin and ZB2VHF in Gibraltar. As I scanned across the CW portion of 6 meters, I heard a weak CQ at 50.094 MHz. Despite the QSB, I managed to copy TF3SG. I replied to him. He came right back, and we exchanged all the necessary information for a valid contact.

Now the mystery started. How could I have worked Iceland when no other people in the area had even heard of an attempt by an operator to apply for special permission? Several people talked with all indicated that the person must have been an illegal or bootleg station. Iceland on 6 meters was just not possible.

I said nothing more about my contact until December 21. Tom, W1EJ, in Connecticut had heard that a person worked TF3SG on December 20, but to his knowledge, that was the only contact. Then, on Dec. 24 everything fell into place. Dave, W1UQC, and Bernice, K1BRD checked into a 6 meter activity net on 28.885. So did Sveinn, TF3SG, the

mystery station! He told the net that I was his first contact on 6 meters. Bob, VE1BX was his second contact, on Dec. 20, four days after I had worked him. No other stations got to work TF3SG, because propagation on 6 meters was gone. In addition, his hard earned permit was due to expire on Dec. 31.

Was I to be the only U.S. station to work Iceland on six meters? For 3 weeks and 2 days it would be so. Then, on the morning of Jan. 8, Sveinn reappeared, with his permit extended till March. He had an incredible pileup, but managed to work 44 stations in about two and one half hours.

The final chapter, and the primary reason for which I have waited to write this article, is that on Jan. 19, I talked to Sveinn on 10 meters. He confirmed all my reported information. He asked me how I was ever able to hear him, for his metering showed no measurable power output to his antenna. He double checked and confirmed that his metering was correct. He had forgotten to solder a capacitor in the output circuit of his 25 watt transmitter. Furthermore, he had improperly connected the feedline to his antenna. I do not boast of having a sophisticated setup for 6 meters - my transceiver is of 1968 vintage, all tubes, and the antenna is a small 3 element Cushcraft beam. This will be one QSO which I will never forget and a QSL card which I will long cherish!

John Balboni, AC1T

CLUB LOGO

We have received several proposals for a club logo and now is the time for your suggestions. The Board would like to introduce a logo at the June Banquet.

ENHANCED CW RECEPTION
WITH THE KENWOOD TS520 s

Even though the Kenwood TS520s equipped with the optional Kenwood CW filter functions admirably, there are some instances when something more is required to achieve satisfactory CW reception. The following is a "built in" feature which requires no modifications at all to the rig.

Copying CW during intense QRM can be done by changing the mode switch to the "tune" position and using the RIT function simultaneously. The beat note of the received signal will shift from the nominal 800 HZ to approximately 100 HZ when changing from CW to TUNE mode. This will move the desired signal to a different point in the receiver's passband and move the QRM out of the passband. Most people are not used to copying such a low frequency beat note and may take a little time to get used to. I suggest practice copying some QSO's just to get used to the low pitch. Using hi-fi quality headphones will also help because they have better low frequency response than communication type headphones. The only thing you have to do is go back to the "CW" mode before you transmit.

Gent Lam, W1CQF

FIELD DAY

Now is the time to start thinking about field day which is held on the last weekend in June. Let Larry, WB1CJH, know what part you want so that he may begin to make plans. This is a great chance for newcomers to amateur radio to get some "hands on" operating experience. If we have as many points in 1980 as we have had fun in the past years we are sure winners.

WELCOME

We welcome eleven new members to the Hampden County Radio Association:

Milton Teitel	K1HNH
Richard Dugas	-
Bill Williams	WB1GMN
Norbert Hluchnik	WB1GIL
Jim Chain	K1CEC
Art Fisher	K1AJZ
Howard Cutting	W1JWV
Ray Chafee	W1ORT
Butch Le Brasseur	K1BLV
Gary Norman	AB1I
Dave Pentilla	K1COW

You are warmly welcomed to the HCRA and we look forward to a long and cordial association. Your club stands ready to help you achieve your goals in amateur radio and your officers and directors stand ready to offer their assistance to you.

Membership in the club now stands at 214 members.

DX Pediton

Don Gleason, W1RED/8FEZ will be in the Barbados and will be active from February 13, 1980, to March 2, 1980. Most mornings SSB at 14.285 MHz at approximately 11:30Z. Most other QSO's 90% CW at no set time during the day. Frequency used will be 14.038/21.038/28.038 MHz. Look for him ARRL DXCW contest Feb. 16 and 17, 1980. QSL to Don Gleason, W1RED, 189 Prospect Avenue, Northampton, Mass. 01060. S.A.S.E. will be appreciated.

FOR SALE

Brand new (used 1/2 hr) Dentron equipment

HF200A Transceiver, HF ACS P/S with speaker.

Clipperton-L 2KW Amplifier with built in power supply.

MT - 3000 A Tuner.

Contact Dr. M. H. Teitel, K1HNH, Springfield, Mass, 734 4558

ARRL NUMBERED RADIOGRAMS

The letters ARL are inserted in the preamble in the check and in the text before spelled out numbers, which represent texts from this list. Note that some ARL texts include insertion of numerals. *Example:* NR 1 R WIAW ARL 5 NEWINGTON CONN JUNE 1 DONALD R SMITH AA 164 EAST SIXTH AVE AA NORTH RIVER CITY MO AA PHONE 733 3968 BT ARL FIFTY ARL SIXTY ONE BT DIANA AR. For additional information about traffic handling, consult *Operating an Amateur Radio Station*, published by ARRL.

Group One -- For Possible "Relief Emergency" Use

- ONE Everyone safe here. Please don't worry.
 TWO Coming home as soon as possible.
 THREE Am in _____ hospital. Receiving excellent care and recovering fine.
 FOUR Only slight property damage here. Do not be concerned about disaster reports.
 FIVE Am moving to new location. Send no further mail or communication. Will inform you of new address when relocated.
 SIX Will contact you as soon as possible.
 SEVEN Please reply by Amateur Radio through the amateur delivering this message. This is a free public service.
 EIGHT Need additional _____ mobile or portable equipment for immediate emergency use.
 NINE Additional _____ radio operators needed to assist with emergency at this location.
 TEN Please contact _____. Advise to standby and provide further emergency information, instructions or assistance.
 ELEVEN Establish Amateur Radio emergency communications with _____ on _____ MHz.
 TWELVE Anxious to hear from you. No word in some time. Please contact me as soon as possible.
 THIRTEEN Medical emergency situation exists here.
 FOURTEEN Situation here becoming critical. Losses and damage from _____ increasing.
 FIFTEEN Please advise your condition and what help is needed.
 SIXTEEN Property damage very severe in this area.
 SEVENTEEN REACT communications services also available. Establish REACT communications with _____ on channel _____.
 EIGHTEEN Please contact me as soon as possible at _____.
 NINETEEN Request health and welfare report on _____. (State name, address and telephone number.)
 TWENTY Temporarily stranded. Will need some assistance. Please contact me at _____.
 TWENTY ONE Search and Rescue assistance is needed by local authorities here. Advise availability.
 TWENTY TWO Need accurate information on the extent and type of conditions now existing at your location. Please furnish this information and reply without delay.
 TWENTY THREE Report at once the accessibility and best way to reach your location.

- TWENTY FOUR Evacuation of residents from this area urgently needed. Advise plans for help.
 TWENTY FIVE Furnish as soon as possible the weather conditions at your location.
 TWENTY SIX Help and care for evacuation of sick and injured from this location needed at once.
 Emergency/priority messages originating from official sources, must carry the signature of the originating official.

Group Two -- Routine messages

- FIFTY Greetings by Amateur Radio.
 FIFTY ONE Greetings by Amateur Radio. This message is sent as a free public service by ham radio operators here at _____. Am having a wonderful time. Will let you know when I return.
 FIFTY TWO Really enjoyed being with you. Looking forward to getting together again.
 FIFTY THREE Received your _____. It's appreciated; many thanks.
 FIFTY FOUR Many thanks for your good wishes.
 FIFTY FIVE Good news is always welcome. Very delighted to hear about yours.
 FIFTY SIX Congratulations on your _____, a most worthy and deserved achievement.
 FIFTY SEVEN Wish we could be together.
 FIFTY EIGHT Have a wonderful time. Let us know when you return.
 FIFTY NINE Congratulations on the new arrival. Hope mother and child are well.
 *SIXTY Wishing you the best of everything on _____.
 SIXTY ONE Wishing you a very merry Christmas and a happy New Year.
 *SIXTY TWO Greetings and best wishes to you for a pleasant _____ holiday season.
 SIXTY THREE Victory or defeat, our best wishes are with you. Hope you win.
 SIXTY FOUR Arrived safely at _____.
 SIXTY FIVE Arriving _____ on _____. Please arrange to meet me there.
 SIXTY SIX DX QSLs are on hand for you at the _____ QSL Bureau. Send _____ self addressed envelopes.
 SIXTY SEVEN Your message number _____ undeliverable because of _____. Please advise.
 SIXTY EIGHT Sorry to hear you are ill. Best wishes for a speedy recovery.

*Can be used for all holidays.

ARRL NUMBERS SHOULD BE SPELLED OUT AT ALL TIMES.

This list becomes effective January 1, 1980.

ARRL RECOMMENDED PRECEDENCES

Please observe the following ARRL provisions for PRECEDENCES in connection with written message traffic. These provisions are designed to increase the efficiency of our service both in normal times and in emergency.

Precedences

- EMERGENCY** Any message having life and death urgency to any person or group of persons, which is transmitted by Amateur Radio in the absence of regular commercial facilities. This includes official messages of welfare agencies during emergencies requesting supplies, materials or instructions vital to relief of stricken populace in emergency areas. During normal times, it will be very rare. On CW/RTTY, this designation will always be spelled out. When in doubt, do not use it.
- PRIORITY** Use abbreviation *P* on CW/RTTY. This classification is for a) important messages having a specific time limit b) official messages not covered in the emergency category c) press dispatches and emergency-related traffic not of the utmost urgency d) notice of death or injury in a disaster area, personal or official.
- WELFARE** This classification, abbreviated as *W* on CW/RTTY, refers to either an inquiry as to the health and welfare of an individual in the disaster area or the reply to such an inquiry that indicates all is well. Welfare traffic is handled only after all emergency and priority traffic is cleared. The Red Cross equivalent to an incoming Welfare message is DWI (Disaster Welfare Inquiry).
- ROUTINE** Most traffic in normal times will bear this designation. In disaster situations, traffic labeled Routine (*R* on CW/RTTY) should be handled last, or not at all when circuits are busy with higher precedence traffic. Most traffic handled on amateur circuits in normal times will fall into this category.

Note -- the precedence always follows the message number. For example, a message number may be 207 *R* on CW and "Two Zero Seven Routine" on phone.

QUESTIONS FOR THE QSL BUREAU

by K1BE

Every month we will try to answer common and uncommon questions asked in the bureau. We hope to make this up into an information sheet to send out with the envelopes and cards. Send in any questions you might have.

Q. Why did you fold some of my cards in half?
A. Your envelopes are too small! The "DL" cards especially won't fit. File 5x7 envelopes, and its a good idea to paperclip extra postage to the outside if you expect extra cards. Those big 9x11 envelopes cost an extra .07¢ to mail and don't fit in our files easily. Try not to use them.

Q. Why did you send me three of my envelopes with six cards in each one all at once? Why didn't you put them all into one envelope?

A. The post office won't accept postage due mailings like they used to. Some just get tossed out by them. You only had 15¢ on each envelope, which means we can only mail about 6 QSLs per envelope. Paperclip some extra stamps next time to the outside.

Q. I've got a "K1" call and have permanately moved to New Jersey. Shouldn't I use the "W2" bureau now?

A. Tough break about living in New Jersey. No, you keep using the one bureau until you get a "two" call. Experienced DX stations will send your QSLs to the New England bureau even though you sign, "portable two".

Q. Who's the person who sorts my cards?

A. The identity of the individual sorters is kept a secret due to problems in the past.

Q. Why doesn't the bureau bring the cards to the New England ARRL convention?

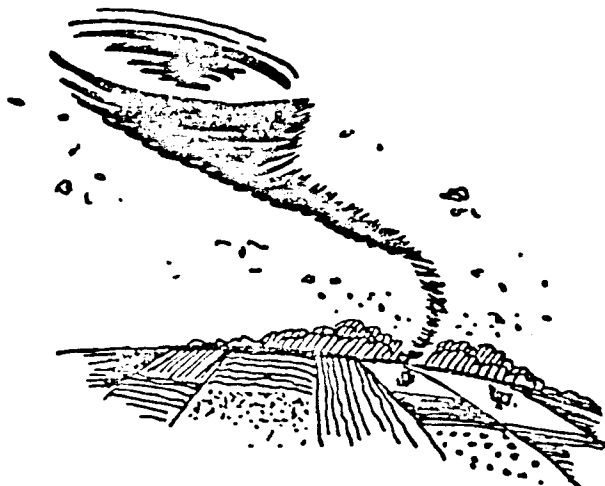
A. It's physically impossible. We do sell envelopes and answer questions though.

Q. Does the bureau send out speakers to club meetings to explain and answer questions?

A. Yes and No. Write and be ready to pay gas, tolls, and supper and we will see if we can help.

Q. What's the phone number of the bureau?

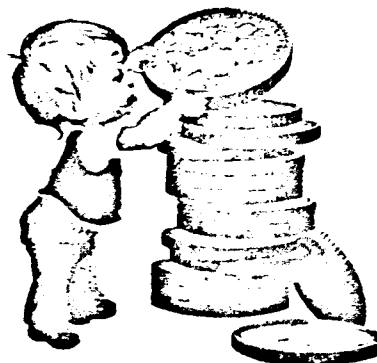
A. We don't have one. Always write and enclose an sase or postcard if you want a quicker answer. A two month wait is common.



JOIN THE AMATEUR RADIO EMERGENCY SERVICE!

WANTED

4 x 250 and 4C x 300A's,
New or Used.
K1ZJH, 1 203 749 7186
20 Farsun Road
Somers, Ct. 06071



DON'T
FORGET
YOUR DUES
S.A.S.E.
FREEZE

Zero Beat, February, 1980

FOR SALE

HAM GEAR FOR SALE BY W1MDK:

HA-6 transverter by Hallicrafters.
Puts a 10 meter station on 6 meters

SX-101 receiver also Hallicrafters.
Ham bands plus WWV

4-1000 linear amplifier by Cal
Phillips. A cool 2 KW PEP with
spare tubes.

24 hour digital clock - Tymeter.

10 minute repeating timer -
Lakeshore electric.

Microphone - Astatic 10D, with
shaped frequency response for SSB.

Vibroplex bug - the plated one,
#205971

Aircraft receiver - R-445 ARN-30,
with power supply.

Tower - Rohn PT-64. Puts the 2
meter beam at 75 feet.

HAM-M rotor, complete with 100 ft
of rotor cable.

Remote 3 position antenna relay,
with multi conductor cable.

Aluma-foam hard line coax, 100 ft
with connectors.

Beams: 11 elements on 2 meters,
4½ elements on 6 meters, Mosley
TA-33 tri-bander.

Signal generator, Eico Mod. 322.

Lo-pass filter, Johnson KW.

Waters CO-AX switches, one for
amp in and out, and one 6 position.

Antenna coupler for open wire by
W1MDK - with feeders.

Dummy load for 1 KW, made from
Glo-bar resistors.

Misc blowers, fans, and meters.

Also - HT-37 & SB-300 presently on
the air in Conn.

FOR SALE

Two Realistic High Fidelity speakers

Model MC 1000

#40-1980A, wood cabinets,
not plastic as in newer speakers.

\$ 35.00 each

WALYYK, Jack, (413) 786 2556

Cushcraft 18 ATV 40 - 10 M
vertical with radials
\$ 40.00

KALAPR, Fred Stepanick
Call after 6 PM, 786 6705

Heath HM-15 SWR Meter	\$ 15.00
" HD-10 Electronic Keyer	35.00
Mosley MF-33 20-15-10 3 element beam	75.00
CDE TR44 Rotor	45.00
HYGain 14AVQ Trap Vertical	35.00

Call Ray, KALCRG 525 6202

Wilson 1402SM 2 meter Handy Talkie
with factory PEP, Nicads, Drop in
charger, monolithic filter, duckie,
external mike, leather case,
52-52, 34-94, 40-00, 19-79.

Gent Lam, WALCQF, (413) 737 9426

1 - Collins (R388/UR) 51J-3
General Coverage Receiver
.5 - 30 MC, Notch filter, BFO.

1- Motorola HT220 4 channel
VHF HANDIE-TALKIE W/ mobile
battery charger, 2 watts
(can be used for 2 meters)

2 - Motorola MH70 VHF-HiBand
Business Band Handie Talkies
2 watts W/120 vac chargers
(151.805)

1 - Motorola VHF-Low Band Tone
Alert receiver on 33.94 MC

For more information contact:

Steve, WALZEV, (203) 243 3030

HAMPDEN COUNTY RADIO ASSOCIATION, INC.
 Membership List, February, 1980

WBLABF	Heather	Brimfield	WB1DBY	Larry	Longmeadow
NLABJ	Bob	Chicopee	WB1DGJ	Mike	Ludlow
WLACJ	Ed	West Springfield	WB1DLT	Doug	Westfield
WALADV	Carl	Ludlow	WB1DLG	Louis	Southwick
WB1AEW	Jim	Southwick	WB1DLE	John	East Longmeadow
N1AEH	Greg	West Suffield	WB1DLH	George	Westfield
N1AFK	Olaf	East Longmeadow	WA1DNE	Bob	South Hadley
KALAGQ	Steve	Longmeadow	KA1DNX	Les	Springfield
NLAGW	Paul	Chicopee	KA1DPY	Bert	Enfield
KALAJZ	Art	West Suffield	WB1DTZ	Bert	Wilbraham
KALAKM	Marcia	Springfield	KALDTH	Duke	West Springfield
WL1ALL	George	Southwick	W1DVV	Nelson	North Amherst
KALANE	Hubert	East Longmeadow	KALECJ	Murel	Ludlow
WB1APD	Jack	Springfield	WA1ECR	Gary	Southwick
KALAPR	Fred	Feeding Hills	WB1EDN	Al	Ludlow
WLARA	Jim	West Springfield	K1EFH	Al	Enfield
N1ASC	Ed	Ashfield	WB1EHS	Barb	Springfield
WB1AUV	Tom	Lenox	WB1EMN	Al	Chicopee
KALAVM	Hank	Springfield	WB1ENG	Bob	Longmeadow
KALAVL	Ray	Westfield	K1EPI	Flood	Feeding Hills
KALAZD	Dick	West Suffield	WB1EQS	Bob	Chicopee
K1BE	Jeff	Southwick	WB1ETS	Ron	Chicopee
KALBAP	Dave	Chicopee	WA1EYF	Steve	Wilbraham
KALBLV	Butch	Ludlow			
KALBNN	Bill	Westfield	W1FAB	Ken	Chicopee
WB1BPJ	Dave	Wilbraham	WB1FIP	Moe	Chicopee
WB1BPL	Bob	Springfield	WB1FIJ	Art	Chicopee
K1BUB	Bob	Westfield	W1FJ	Fran	Northhampton
W1BVR	Percy	Lansboro	K1FUA	Fred	Westfield
WB1BWD	Don	Springfield			
W1BXB	Harvey	Southwick	WB1GAJ	Sebastian	Enfield
WB1BZW	Andy	Feeding Hills	WB1GIL	Norbert	Windsor
			WB1GLX	Raymond	Wilbraham
WB1CAC	Scott	Boston	WB1GLZ	Al	Longmeadow
KALCAX	Francis	Springfield	WB1GMN	Bill	Suffield
WB1CAB	Dave	Chicopee	W1GQP	Al	Southampton
KALCCL	Dave	Granby (Ma)	WB1GTR	Jack	Springfield
KALCDS	Peter	Wilbraham	K1GTE	John	Feeding Hills
KALCEC	Jim	Suffield	W1GUG	Dick	Springfield
WB1CJH	Larry	Longmeadow	K1GXU	Larry	Ludlow
W1CJK	Bill	Holyoke			
W1CKP	Harold	Amherst	W1HDQ	Ed	Canton (Ct)
WB1CLN	Malcolm, Jr.	South Hadley	WB1HEE	Philip	Springfield
WB1CLO	Malcolm, Sr.	South Hadley	W1HHR	John	Columbia (Ct)
N1CM	Len	Wilbraham	K1HNE	Milton	Springfield
K1COW	Dave	Spencer	K1HTS	Fred	Westfield
KALCPG	Leo	Holyoke	AB1I	Gary	Granby (Ct)
WALCQF	Gent	Springfield	K1IJU	Norm	Monson
N1CQ	Bill	Granby (Ma)	K1IJV	Jean	Monson
KALCRG	Ray	East Longmeadow	K1ITU	Don	Amherst
K1CSB	Roy	Easthampton	W1IUB	Al	North Granby (Ct)
KALCIM	Richard	East Longmeadow	W1IVK	Chet	Springfield
WB1CXC	Rudy	Indian Orchard	W1JJP	Bill	Brimfield
WALCYK	Ed	Westfield	K1JDL	Dick	Longmeadow
			W1JWV	Howard	Springfield
			W1KK	Art	Agawam
			WALKJD	Al	Easthampton

WIKUE	Tom	Springfield	WALWRM	Joe	Northampton
WIKUL	Bob	Monson	WALWSR	Bill, Jr.	West Springfield
WIKZU	Herb	Feeding Hills	WALWSS	Bill, SR.	West Springfield
WAILIS	Al	Enfield	KLWTA	Len, Jr.	Enfield
WILJQ	Ray	Northampton	WALWTK	Louis	Ludlow
WILRA	Alden	Westfield	WALWXS	Don	Springfield
WIMM	Bob	Holyoke	KLWXU	Roger	Westfield
KIMAL	Mac	Northampton	WLXL	Chris	Amherst
WIMDM	Cal	Plainville (Ct)	KLUOR	Doris	Florence
WIMOK	Myles	Chicopee	WALYCA	Try	Southwick
WIMQK	Mal	Springfield	WALYOG	Jim	Southwick
KINJC	John	West Springfield	KLYQQ	Chet	Springfield
WINLE	Bob	Springfield	WALYYK	Jack	Agawam
WINPL	Ed	Chicopee	WALYYW	Rich	East Longmeadow
WINQC	Wes	Springfield	WIZI	John	Amherst
WINRK	Bob	Westfield	WALZEV	Steve	Bloomfield
WINYP	Bob	Holyoke	KLZFJ	Bob	Enfield
WALORT	Ray	Monson	WALZKT	Paul	Westfield
NLPE	Norm	Springfield	KLZOC	Joe	Springfield
NLPN	Hugh	Amherst	KLZQB	Jack	Chicopee
WALPGT	Gerry	Longmeadow	WALZRI	Roger	Lodi (Ca)
WALPSC	Howard	Springfield	WALZXX	Chris	Newport News (Va)
WALPUX	Bruce	Unionville (Ct)	WALZXY	Chet	Enfield (Ct)
KLQMV	Bill	Ludlow			
WLQUJ	Dick	Ashuelot (NH)			
WALQXX	John	Williamsburg			
WIRBU	Jim	Easthampton			
WIRDC	Walter	Holyoke			
WIRED	Don	Northampton			
WIRLV	Ted	Ludlow			
WIRRW	Glen	Amherst			
WALRWU	Frank	Southwick			
WALSDY	Don	Springfield			
KISUD	Bob	Springfield			
WALSOF	Peter	Agawam			
WALSMH	Al	West Hatfield			
ACTT	John	Agawam			
WALTHR	Don	Southwick			
WITM	Bill	Great Barrington			
WITTL	Ed	Indian Orchard			
WITXS	Dick	Springfield			
WALUCQ	Bill	Indian Orchard			
WALUGL	Dick	West Springfield			
WALUIV	Ed	Springfield			
KLUJT	Carl	Warren			
WLUKR	Eunie	Monson			
WLUPH	Don	Hampden			
WLUWX	Cliff	Holyoke			
WALVAH	Bob	Westfield			
WALVCU	Chick	Indian Orchard			
WALVHU	Bill	Palmer			
WLVNE	Leo	Ludlow			
KLVWX	Paul	Suffield (Ct)			
KLWB	Bill	Suffield (Ct)			
WALWFR	Larry	Springfield			
WLWLE	Bob	Springfield			
WALWRK	Rick	Northampton			

IMPROVED SWR BRIDGE

After listening to W1NG's explanation of why he had two SWR bridges in line to the same antenna (element switching back and forth between forward and reflected positions), I decided to go one step further and integrate the above in my homebrew antenna tuner.

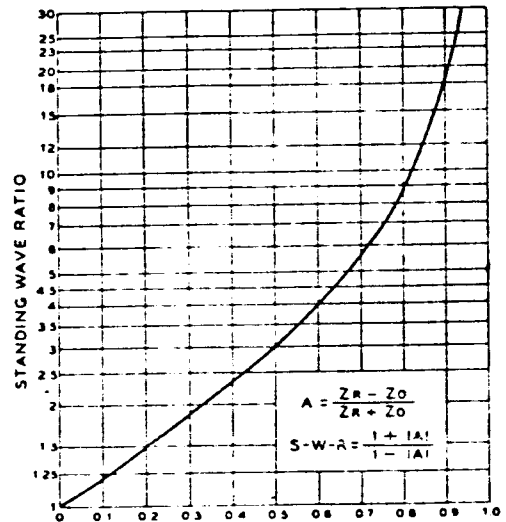
The basic bridge is copied after the Heathkit type (also known as the Monimatch) using pickup wires parallel to the center conductor of a coaxial cable. The 150 ohm terminating resistors are for a 52 ohm version and can be changed to 100 ohms for a 75 ohm version. Details of this part will not be discussed as it is well documented in the various handbooks.

The only other components required are two meters (preferably having the same full scale sensitivity) and a 2 gang pot. The scales on the meters and movement sensitivity are not critical since they are only being compared for full scale deflection on one and minimum deflection on the other. The pot point is adjusted for full scale on the forward meter and the reflected meter is automatically tracked. Adjust the antenna tuner for minimum deflection on the reflected meter. Some interaction will occur between the meters as the antenna tuner is adjusted.

The usual forward-reflected switch is eliminated. The reflected meter can be calibrated for SWR by using the following chart. The ganged pot can be any dual control from 10K to 50K.

This configuration of SWR bridge is available in commercially made versions and no claim is made for originality. Now that I've built it, I don't know how I got along without it.

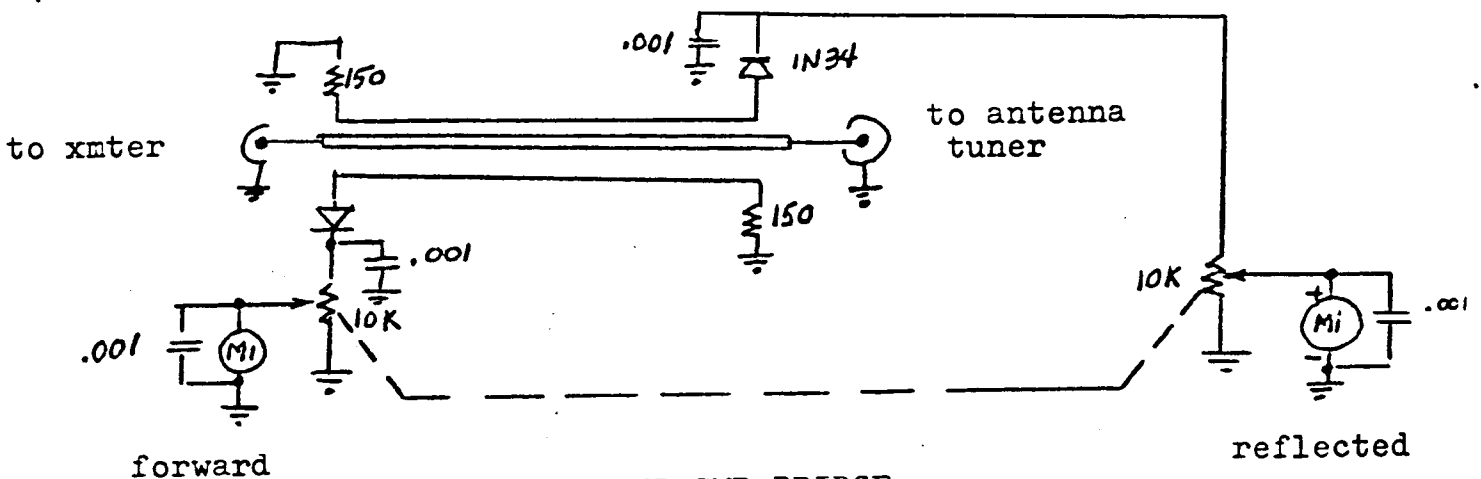
Gent, W1CQF



READING ON 0-1 INSTRUMENT, OR FACTOR TIMES FULL SCALE (MAGNITUDE OF REFLECTION COEFFICIENT, A)

RELATION BETWEEN STANDING-WAVE RATIO AND REFLECTION COEFFICIENT

This chart may be used to convert reflection-coefficient indications such as are obtained with a bridge-type standing-wave indicator or an indicating twin lamp into values of standing-wave ratio.



IMPROVED SWR BRIDGE

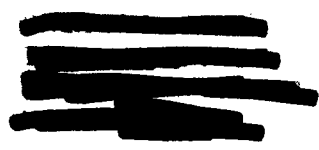
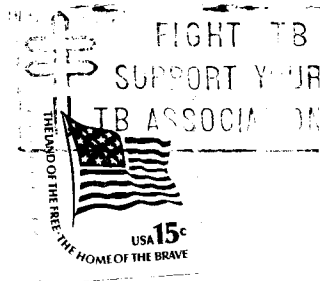
IN THE GOOD OLD DAYS:

W1MNG has help trying a new gamma match on 10 meters. W1UD trying out amateur television with W1CCH's help. Neighbors thrilled when W1QWJ with W1JYH took down the 6 over 10 array. Little did they realize it would soon be back up! W1NLE has a classy two meter mobile installation. W1RRW tired of frosty evenings operating ten meters mobile, is going back to the warmth of his amplifiers. (All from the October 1949 ZB)

The HCRC picnic at Look Park a huge success. Bill Blankenship and Rog Corey opposed each other's teams in softball. Dirt Farmer W1PHU has a crop of tomatoes. W1BVR using a microphone for the first time. (from the September 1950 ZB).



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ACIT

FIRST CLASS MAIL

Zero Beat
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