

FEB 18

THE HAMPDEN COUNTY RADIO ASS'N. Inc.

ZERO BEAT Issue 2

President	Jeffrey J. Duquette	K1BE	569-6739
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Secretary	Larry Soltz	WB1CJH	567-3444

NEXT MEETING

Friday, February 3rd, 1978

Jay Rusgrove from the A.R.R.L.

Topic: Evaluating Receiver Performance

Doors open at 7:30 PM Meeting starts 8:00

Feeding Hills Congregational Church,

Intersection of Routes 57 and 187,

Feeding Hills Mass.

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CLUB MEMBERSHIP IS \$5.00 FOR 12 MONTHS. SEND CHECK TO BOX 346,
SOUTHWICK, MASS. 01077. OR PAY THE TREASURER AT THE CLUB MEETING.

PRESIDENT'S CORNER

The A.R.R.L. and the F.C.C. are under attack by Rick Cooper, a CB'er who claims to be "dictator" of a CB civil rights group. His "Communications Attorney Service" is beginning a letter writing campaign to Congress. Cooper wants over 5 million CB'ers to write the F.C.C. and Congress demanding the expansion of the CB band to 29Mhz, a section of the 220Mhz ham band, the HF Marine Band, and an instant upgrading of all CB'ers to general class amateur license. (Of course, no code or testing requirements!) He has already filed suit against the A.R.R.L. over its' "Code of Ethics". (The HCRA endorse the code.) The goals are outlandish, but even if 10% of over 10 million CB'ers write, Congress will be hard pressed to ignore them. What do I think will be the outcome?

The F.C.C. will respond, because political pressure is what government bodies can not ignore. At first, we would say that there is no way they would "instant upgrade" the CB'ers to general status. The international treaties have a code requirement, right? Wrong! W.A.R.C. is in 1979, and it's not inconceivable that the code requirement could be dropped. (You're all familiar with the "what good is code?" arguments.) What I do expect the F.C.C. to do is to move forward very quickly with its' new class of Novice. No code test, and voice privileges in the 220Mhz band. This will be done more suddenly, in order to quiet the criticism. What should the HCRA do?

As a gun owner and supporter of the right to keep and bear arms, I have seen many slanted newspaper articles and misrepresentations in the news media of gun owners. The National Rifle Association is the body which has fought for many years to keep our rights. You have all seen the Jack Anderson column of pure bull. The CB'er and John Q. Public will readily agree with the argument that hams have been "given" too much frequency space by the F.C.C. because the amateurs run the F.C.C.! Why shouldn't the CB'ers get more channels? This is one of the many types of illogic we'll be up against. You know what the news media will do to our side of the argument. (i.e. "CW only can be used at night." This was one of many errors in a recent news article.) We hams must begin NOW to support a strong lobbying effort by the League. Memberships alone aren't going to be enough. Donations of time and money will be required. Hams are great at getting their views across in the amateur community. Now we must also educate the biased public. What should the HCRA do as a club? Write and let us know! We'll publish your letters in next month's "Zero Beat".

I will not surrender my guns or my frequencies without a fight.

73,

Jeff KLBE

JANUARY MEETING REPORT

Acapacity crowd with standing room only received Tom McMullen's talk on antenna designs for DX. Starting with four basic designs, Tom explained how works the antenna, and slowly built up to more complicated antennas. The question period became somewhat involved and the detailed answers helped many people present. I don't know if anyone went home and loaded up their drainpipes, but I'm sure some improved signals will be on the air.

Two 1978 Yearbooks were raffled off and many people received free copies of "Ham Radio Horizons". This month's meeting will also be technical, so don't miss it.

BROWN BAGGER'S REPORT - WB1EMB

The Brown Baggers meets every Friday at the Ground Round, intersection of route 5 and the North End Bridge rotary. Starts at 11:30 am and ends when they run out of good times. We've had good attendance despite the bad weather. For instance, K1GHL Bert found a dog sled and mused in on Friday January 13th. WA1GUL Dick finally had to cough up .25¢, no badge. The Mad Bomber gotcha!

And to Paul, WA1ZKT, Chet, K1YQQ finally found a box of "Z's" and now you have a BB badge. Paul, or Zebras, Kangaroos and Tigers, yours truly has been getting some good code practice and cw work on 10 in the evenings. All that is needed now is a crystal and you'll regret ever telling me about that frequency.

We also got into one of my favorite topics, Wanger flying again with Bert, K1GHL, Dick, WA1UGL, and Chet, K1YQQ. That Bert is an endless story teller about boring holes in the clouds. I for one hated to see the afternoon end.

At this month's meeting we had WB1DTZ, Bert, W1BUG, Dick, WB1CJH, Larry, and K1BE, Jeff. Those two tireless tigers from HCRA, they don't know when to quit! We had WINNP, Dave, our young college student and K1NWE, Bob and K1UOR, Doris, and hope to see them at the tee pee more often. We had WA1WXS, Don, WA1DNB, Bob, WB1EMQ, who is a new one on me. WA1GZO, Ted also joined the group of regulars. See you at one of the BB's Friday Luncheons. -Joe, WB1EMB

MISCELLANEOUS NOTES

Don't forget that the Simulated Emergency Test is January 28-29. The Sunday Morning Western Mass Emergency Phone Net meets at 08:30 on 3.935 khz. Check in there or via a local repeater at 9 am. You're of little use in a real emergency if you don't know net procedures. Bob, WA1DNB, will make you welcome...Provin Mtn Club sends code practice at 8 pm every Thursday on 28.175. Novices and Techs, join the fun... We need the mailing address of Harvey Mensch and Herbert Binns! Call Jeff... John, WB1CAD, finished working France and then looked out the window to find his antenna on the ground. Leave it there, John...Let us know when you or a friend upgrade or do anything else of interest. A postcard is fine...There is a microcomputer club in the area. They meet at 7:30 pm on the first Thursday of every month at: The computer Store, 63 S. Main Street, Windsor Locks, Ct. 06096 Phone is (203) 627-0188... Return your VHF Sweepsatkes logs to WA1RWU, Frank Potts, 154 South Loomis St, Southwick, Mass 01077. Every log counts, no matter how few contacts. That one sheet might put us over the top... WB1ETS, Ron, passed his General... WA1WXS, Don, passed his Extra...The next MTARA meeting is Monday January 30th. Dave Sumner, K1ZZ, will speak on WARC in '79. He'll be letting us know what we'll be loosing and gaining in Frequencies. The meeting will be held at the Valley Bank in Ludlow, starts at 8 pm...Pass this issue of ZB on to a friend when you're done. HCRA welcomes all new people, especially novices...Jeff, K1BE, will be heard on 2 meters more often, just got an FT-221...Bob, WA1DNB, has been checking into the HCRA 10 meter net on cw. Nice tone and signal, Bob... Paul, WA1ZKT, was having TVI until he put a resonant length of wire under the antenna. No more TVI... We will be glad to advertise any ham radio club's activities, get it in to us the 16th of the preceding month..

OPERATING EVENTS

Jan 30-31	TEN-TEN Winter QSO party SET Weekend
Jan 30	Nostalgia Exchange
Feb 4-12	ARRL Novice contest
Feb 4-5	ARRL DX Phone contest
10-12	New Hampshire QSO party
10-12	QCWA QSO party
18-19	ARRL DX CW contest

TWO METER CLOUDS

With the arrest and conviction of two licensed hams for malicious interference and obscenity over a repeater, the FCC has shown that it will move against illegals. We can be sure that more and more clouds will appear on the repeaters. Ham gear is sold to anyone who can reach the counter. Hatry's Electronics of Hartford is an exception, with an amateur license necessary for purchasing ham gear. But what can we do about this problem?

One of the first things you can do is support the League's ethics program. Grass roots support has not been showing itself loudly. Let stores like Sears and Lechmeres know that you will not buy anything from them if they continue to sell amateur equipment to un-licensed people. The clouds who get on repeaters to KER-CHUNK, swear, or be a nuisance, do so only to get attention. Ignore them, don't even talk about them when they are not obviously listening. Direction finding will be big in 1978. Committees should be planned now and coordinated behind the scenes to locate the turkeys. Build a solid case before you take it to the FCC. Well documented interference means you'll get your day in court. Sophisticated DF equipment will also pay for itself through the recovery of stolen gear. Mark your equipment with your SS number by using an engraving pen.

Nothing angers a ham more than hearing someone else "bootlegging" with their call. Ask dubious call signs how long they've been licensed. An example comes to mind of a WB1QLF who said he's been licensed "for over three years". Of course we all know they weren't issuing "WB" three years ago! Look up doubtful calls in a 1978 call book. If the QTH doesn't match, get the clown's address for a "QSL" card.

An area where the clouds are really going to kill a good thing is the autopatch. Legal use by club members often leaves open the question of "business interest". The unlicensed dummies say whatever they want over it. Tape recordings of the numbers dialed can help identify them.

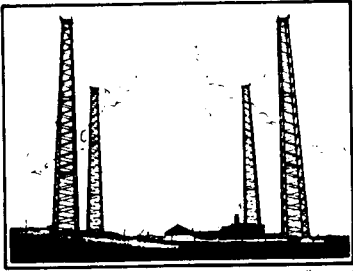
The day of the open repeater is numbered unless we all make a concerted effort to keep the clouds out of there. Start today to practice a few of the things mentioned here. None of us want to have to use secret access codes just to talk over a repeater. I for one can't see another solution if the litter is not cleaned up.

WANT ADS

Bug Slip? Keyer slip? Send \$1.00 to: Oliver Quist, KIHYL, P.O. Box 90, Munsonville, NH 03457. For guaranteed non slip media pad that will end those problems. Watch your fist improve when you don't have to worry about the keyer slipping and sliding around.

KM1CC EXPEDITION

THE BIRTHPLACE of UNITED STATES
TRANSATLANTIC RADIO



1903 MARCONI STATION CC

On January 18, 1903 from the Marconi
Rotary Spark Gap Station located in
South Wellfleet, Massachusetts
Guglielmo Marconi successfully completed
the first Two Way Radio Transmission
between the United States & Europe

1903 MARCONI 1978
75th ANNIVERSARY

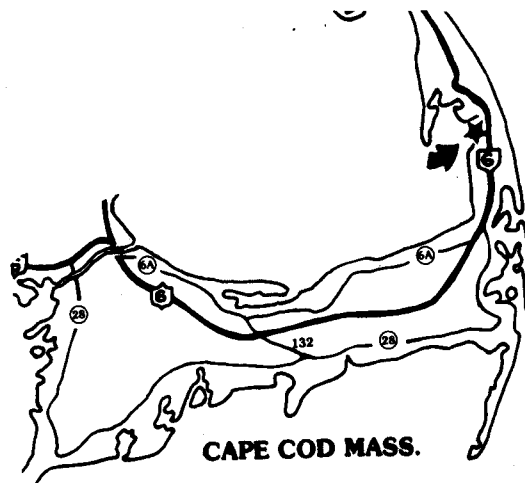
With the organizing talents of Art, W1KK, (accomplished even while he was on a cruise ship), a contingent of hams from the HCRA journeyed to the Cape to help out with the Marconi Memorial Station. Dick, W1QWJ, Eunie, W1UKR, Jack, W1APD, Barb, W1EHS, Jean, K1IJV, Jeff, K1BE, and Bill, W1CJK, arrived at 3 pm on Thursday. They operated until about 7, then went back to Jean's cabin for supper. The station was very elaborate, with SSTV, RTTY, and many antennas and rigs. Everyone went back and did some more operating and at 11 pm the troops returned home to their beds, leaving Jeff to hold the fort. During the night a northeaster arrived, swirling and howling outside at 50 knots. The National Park Service and the Barnstable Radio Club recommended that everyone leave the station. Jim, K1UQI of Providence, and Jeff decided to remain behind and operate, come hell or high water.

There they were with over ten operating positions and no people! It was like being a kid loose in a candy shop. A car full of operators did return, because their auto had gotten stuck trying to get out. With seven hams and no food, except for beer crackers and lots of coffee, KM1CC stayed on the air! Pile ups continued on all bands and we continued to keep our schedules with GB3MSA. Jeff slept on the floor, with the SSTV contacts going on beside him. The sound of A-2 spark gaps thrilled hams from coast-to-coast. Some even made QSO's using their own spark gap transmitters, and their old call signs. (This was around 2 am when the FCC was asleep.) Jeff worked a ham who's brother-in-law was one of Marconi's original two operators. Working all bands, the tired hams kept banging away at the keys.

The rest of the HCRA team couldn't get out of the driveway so they kept in touch via two meters and the landline. ART and Bill mounted a rescue mission from the nearby motel, bringing solace and sustenance to the tired crew. What a sight to see the two of them trudging through the 50 knot winds. Everyone jumped on the food and then went back to operating. The old folks saved the youngsters again!

The station became accessible on Saturday morning and the team was together again once more. Everybody got some more operating time in and then packed up for home. When we had originally made the plans to go down there, Jeff never thought that he'd get to make so many contacts, let alone be the control operator and entire operating staff at times. He was so tired that when Art and Bill bought him a hamburger and a ginger ale, he found himself leaning over trying to copy the cw the soda was sending!

It was a great experience for all and a thrill to help re-create history. The FCC should re-consider their ban on special event calls because they really do add to ham radio's dimensions. Many thanks to K1VV and the Barnstable Radio Club for sponsoring and organizing a number one operation.



1903-MARCONI 75th ANNIVERSARY-1978
MARCONI'S CAPE COD TRANSATLANTIC WIRELESS STATION
by Frank Caswell-WIALT

Guglielmo Marconi came to Cape Cod, Massachusetts in 1901 to establish the first transatlantic wireless station in the United States. The station was constructed on the sand dunes of South Wellfleet, Massachusetts and was completed in late 1902. The transmitter was of about 30,000 watts power consisting of a three foot diameter spark-gap rotor supplied with 25,000 volts of alternating from a kerosene generator. The aerial wires were to be supported by 200 foot masts. The masts, 20 in number, were placed in a circle 200 feet in diameter in the sand dunes. The Cape Codders were skeptical of the masts being erected in the sand dunes and as they predicted the masts were blown down in a northeast storm in November 1901. Marconi then erected four 200 foot timbered towers and in late 1902 the station went on the air for tests.

On the night of January 18, 1903, Marconi attempted to send the following transatlantic wireless message from the then President Theodore Roosevelt to the King of England, Edward VII, "His Majesty, Edward VII, In taking advantage of the wonderful triumph of scientific research and ingenuity which has been achieved in perfecting a system of wireless telegraphy, I extend on behalf of the American people most cordial greetings and good wishes to you and to all the people of the British Empire. Theodore Roosevelt."

The message was received at the Marconi station in Poldu, England, and for the first time the United States had been linked with England by wireless. A return answer was received at South Wellfleet from King Edward VII and was delivered to the President through the South Wellfleet Railroad Telegraph station.

In 1907 the engineers realized that they had built the station too near to the ocean and by 1917 the sand dunes had eroded close to the tower bases. The station soon after had to be abandoned. Today approximately one half of the site has been claimed by the Atlantic Ocean.

In its 15 year history of operation the station had three call signs, CC, MCC, and WCC. Old "CC" was a prime press outlet to ships at sea and to this day WCC, now located in Chatham, Massachusetts is the busiest commercial radio station on the east coast. The station handles world wide traffic to and from ships at sea and is still communicating by international morse code as used by Marconi in his day.

HAM CALL PLATES

If you've always wanted your call sign on your license plates, this is the form to return to your insurance agent. There is an extra two dollar charge, but it is not a "vanity" plate, so don't pay ten dollars! The amateurs lobbied and had a special law passed so that we could get the lower rate.



COMMONWEALTH OF MASSACHUSETTS
REGISTRY OF MOTOR VEHICLES
100 Nashua Street, Boston, Mass.

Date _____ Station Call Letters _____
(register number)

AMATEUR RADIO OPERATOR'S APPLICATION

Application is made for number plates displaying the special register number noted above.

I hereby certify that I am licensed under said number by the Federal Communications Commission as an Amateur Radio Operator and that said license is not in the novice class. A photostatic copy of my F.C.C. license is attached.

Signature of Applicant

Address

G22

CROSSWORD CONTEST WINNER

The winner of our very first crossword puzzle contest was Fran Johnson, N1FJ. He submitted the first correct entry. Thanks for all the entries and Fran will receive his 1978 ARRL callbook at the February meeting.

The CW Op'

The "SS Canberra" shuddered as her hull was ripped open by the unseen iceberg. the cold sea began rushing in, as alarms rang throughout the ship. "Abandon ship, abandon ship", Cap'n Mile's voice ordered. In the radio room, "Spark's" wrist flashed back and forth, sending an appeal for help:

SOS SOS SOS de Canberra Sinking fast, position NW of Azzuma Island, NW of Azzuma Island SOS K

No answer, "Sparks" tried again and again. The lights failed as the sea reached the boilers. The ship was listing 35° to starboard as First Officer Teed entered the shack. "Com'n Sparks, the last lifeboat is putting away". "Go, go", answered the radioman, "I've no answer yet!" Sparks switched to the batteries and continued to send the urgent message.

Cap'n Miles, warm in the hospital ward of the "HMS Briton", spoke to the ship's doctor. "Aye, she sank seven minutes after we hit the damn 'berg, but thanks to your arrival we only lost our 'Sparks". The Doctor replied, "Our radio operator logged your SOS at 17:11, and a weak signal at that. Your radio officer saved your lives by staying at his station". The Cap'n looked at the Doctor with a puzzled expression: "You've got the time wrong, Doc, for the "Canberra" disappeared below the waves at 17:00, I looked at me watch".

MEETING SCHEDULE

3-February Jay Rusgrove, WALNQ, from the A.R.R.L., will speak on evaluating receiver performance. Don't miss out on this interesting program, brought to us because of the hard work of WALPUX.

March 3rd- Speaker on treating electrocution. Steve, WALZEV, will also be having another speaker come in.

April 7- WALPUX has a real surprize lined up for us. The league speaker touched on this topic last year, and this year it promises to be very enlightening. It will include a working demo, a lecture and a good question and answer period.

May 5- Our annual Flea Market. This will be widely advertised. Plan on bringing in all the boat anchors you bought at the Auction!

June 2- Our end of the year banquet. A neat program is planned with good door prizes, and some neat gifts for the raffle. Election of officers takes place at this meeting.

We welcome the following new members to the club:

WB1FWQ	Bob	WB1FJK	Walt
WB1AEW	Jim	Paul Umbenstock	
WB1BPL	Bob	WB1DLU	Phil
WB1CWF	Ted	WB1DLH	George

Herbert Binns- We need your mailing address!

FT-101 OWNERS

A new, improved MOSFET is available to replace your first RF amplifier in any Yaesu FT-101. The company that distributes them is willing to give us a discount if we order in quantity. The new MOSFET gives you a 10dB increase in signal strength, which means about eight times what was there before. Installation is very simple, with no soldering unless you have an old rig. If you can't do it yourself, we'll show you how at a club meeting. Cost for club members is \$2.00, which saves you \$1.00 off the list price of \$3.00! Send check or money order to Jeff Duquette, P.O. Box 346, Southwick, Mass 01077. If you don't intend to pick it up at an HCRA meeting add another .25¢ for mailing. Cost for non-members is \$2.50. Satisfaction guaranteed or your money back. We are not responsible though if you ruin the MOSFET through negligence.

Emergency Communications

At the February meeting of the Provin Mountain Club, the speaker will be Peter Friedland. His important subject will be your role in emergency situations in Western Mass. He will also be looking for hams to take his course on this subject. The club meets on February 6th, 275 Maple Street, Springfield, Mass in the Red Cross Building. Contact Chick, WALVCU, at 543-1836 for more information.

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All amateurs in the Chicopee area that are interested in helping out the American Red Cross in times of need with radio gear, contact Chick, WALVCU at 543-1836. When an emergency arrives, it's too late to find out what they need from you. Join now and practice, then you can be of real assistance in times of emergency.

GOOD SEMICONDUCTOR PRACTICE
 Ima Yinyang WDIQLF

Modern semiconductors are built to take it. Some tips to remember are:

1. If it doesn't go right into the socket, a gentle tap with a 10-pound hammer generally makes it fit.
2. Install the semiconductor first. Soldering in resistors, capacitors, etc. around it won't matter.
3. When soldering, use a heat sink, if cold water is not available for cooling. Use any type of soldering iron of 50 watts or higher. To avoid over-heating the semiconductor, place a bag of ice on top of the device. Soldering underwater is also recommended.
4. Keep the leads long, so that you don't strain your eyes. #12 wire is great for IC's especially.
5. Positioning the semiconductor next to hot tubes, power supplies, etc. insures long life.
6. If a lead breaks off the semiconductor, put it in anyway. They come with extras.
7. If after installation the device doesn't work, write the manufacturer and let him know what crummy Quality Control he has!

FREQUENCY ALLOCATIONS FOR POPULAR AMATEUR BANDS All in Megacycles. "X" indicates no privileges.										
CLASSES →	NOVICE		TECHNICIAN		GENERAL AND CONDITIONAL		ADVANCED		EXTRA	
	BANDS ↓	CW	PHONE	CW	PHONE	CW	PHONE	CW	PHONE	CW
80 METERS	3.7 to 3.75	X	3.7 to 3.75	X	3.525 to 3.775 and 3.89 to 4.0	3.89 to 4.0	3.525 to 3.775 and 3.8 to 4.0	3.8 to 4.0	3.5 to 4.0	3.775 to 4.0
40 METERS	7.1 to 7.15	X	7.1 to 7.15	X	7.025 to 7.15 and 7.225 to 7.3	7.225 to 7.3	7.025 to 7.3	7.15 to 7.3	7.0 to 7.3	7.15 to 7.3
20 METERS	X	X	X	X	14.025 to 14.2 and 14.275 to 14.35	14.275 to 14.35	14.025 to 14.35	14.2 to 14.35	14.0 to 14.35	14.2 to 14.35
15 METERS	21.1 to 21.2	X	21.1 to 21.2	X	21.025 to 21.25 and 21.35 to 21.45	21.35 to 21.45	21.025 to 21.25 and 21.27 to 21.45	21.27 to 21.45	21.0 to 21.45	21.25 to 21.45
10 METERS	28.1 to 28.2	X	28.1 to 28.2	X	28.0 to 29.7	28.5 to 29.7	28.0 to 29.7	28.5 to 29.7	28.0 to 29.7	28.5 to 29.7
6 METERS	X	X	50.1 to 54.0	50.1 to 54.0	50.1 to 54.0	50.1 to 54.0	50.0 to 54.0	50.1 to 54.0	50.0 to 54.0	50.1 to 54.0
2 METERS	X	X	145.0 to 148.0	145.0 to 148.0	144.0 to 148.0	144.1 to 148.0	144.0 to 148.0	144.1 to 148.0	144.0 to 148.0	144.1 to 148.0

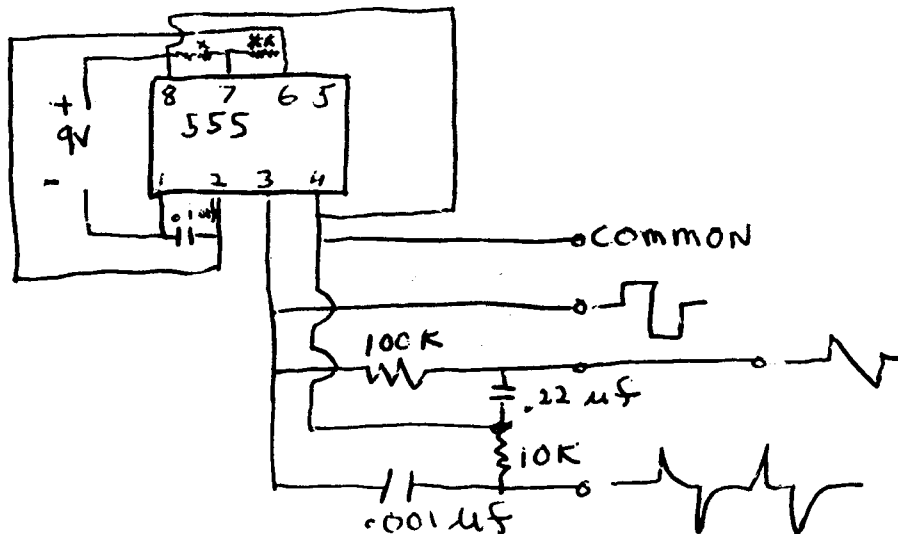
COMMENTS AND NOTES

After many years of service, W1DVW, Bob, has resigned as route manager. Anyone interested in the job?... FCC is soon expected to issue "lifetime" amateur licenses. You may not have to change your call when you move into another call district, either. By the end of 1978, they may go to issuing calls strictly in progression, no more 1X2's or 1X3's, even if that's what you once held. You'll simply get the next call that's unassigned. i.e. you were once W1APD, but you allowed your license to lapse. When you finally get re-licensed, you'll have to accept W1---, ...Our club call, W1NY, is now being regularly used by the Net Control Station of the HCRA 10 meter net. Check in on 28.650 mhz, Monday nights at 8 pm... Word from the ARRL is that the FCC will soon begin using new exams that are based on the material in the new licenseing guide. General and Technician applicants should know the Rules and Regulations backwards and forwards. Advanced and Amateur Extra should be very knowledgable about what's in the old and the new license guides, plus the Ameco books. Amateur Extra continues to be a tough technical exam... Jeff, K1BE, will be on station WDEW in Westfield on February 20th for a talk show. The subject will of course be Amateur Radio! Listen in and phone in some comments. He'll need all the help he can get... If you have a commercial ticket and would like some operating time, WTCC in Springfield is looking for warm bodies. Call in and ask for Chuck Duquette...

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SIMPLE TEST GENERATOR by W1PUX

Want something to look at on your scope? Want a cheap, reliable, Square, Triangle, or pseudo-new waveform generator? If the answer to either of these questions is no, read on regardless to see how easy it is to build this one IC waveform generator. No special techniques are needed, and the entire unit can be built for \$5.00.



- * is a 7.5K resistor or variable pot
- ** is a 1-3 K resistor or variable pot