OCTOBER 1979

THE REPEEPER

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Vice President --
Gary WA2UGO
Secretary --
Tom W2GIJ
Treasurer --
Arthur WA2TIF
Director of Engineering --
Frank W2GIO

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Trustee -- Frank W2GIO
Control Operators --
Frank W2GIO
Ted WA2QPP

WA2AHR/R -- Beekman
222.32/223.92 (under test)
Trustee -- Bill WA2AHR
Control Operators --
Bill WA2AHR
Mark WA2ZJZ
Bryan WA2NKB

WR2ABB -- Mt. Beacon
146.37/146.97
Trustee -- Gary WA2UGO
Control Operators --
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Al W2IEU
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WA2JKN/R -- Poughkeepsie
147.645/147.045
Trustee -- Lou WA2JKN
Control Operators --
Lou WA2JKN
Mike WB2YAZ
Chuck K2NW
Don WA2KJL
Bill K2BXE
Gary WA2UGO
Gary W2CS
Linda N2YL

Welcome to FM

Perhaps Amateur Radio FM repeater operation is new to you. We'll attempt here a brief summary of its characteristics.

Probably the most obvious characteristic is solid, reliable communication. Frequency modulation voice techniques (FM) are particularly immune to noise. In general, if you can hear the other station at all you can hear him well. FM receivers can nearly eliminate interference from lightning crashes, automobile ignitions, and similar nuicances.

Repeater operation is channelized, much in the same way as Citizens Band radio is. However, unlike CB radio, this is entirely voluntary. Amateur Radio operators thruout the country have agreed to "band plans" defining the discrete frequencies within the (again voluntary) FM portions of each band. Regional "frequency coordinators" assign specific frequencies to groups of hams wanting to set up repeaters. The main concern is to avoid conflicts in the use of the available frequencies that would result in interference. Since there are a limited number of channels, and only a very few assigned to any given area, the chances are very high that someone will be listening when you call (say, for road assistance).

Add repeaters to the picture and you have good, solid communications. A repeater is an automatic relay station that receives on one frequency and immediately retransmits what it hears on a different frequency. All stations using a particular repeater transmit on its "input" frequency (also called "up-link") and listen on its "output" frequency (or "down-link"). The terms up- and down-link probably come from where repeaters are usually installed. They're almost always on top of Mount This, or Such and Such Hill, or the Something Building. It seems that every time a bunch of Hams see something taller than anything else around, they decide to get together and put a repeater up on it.

Two of the repeaters operated by our Club are on Mount Beacon near Beacon, New York. At the (VHF, Very High Frequency) frequencies that most repeaters operate, communication is primarily "line-of-sight." But line-of-sight from the top or Mount Beacon is magnificent to say the least. As long as your signal is enough to be heard by the repeater, anyone who can hear the repeater can hear you. It's not unusual to hear mobile-to-mobile contacts between Long Island and Albany going thru a Mount Beacon repeater. An Amateur Radio Operator with a small hand-held unit in Hyde Park can easily contact a friend in Yonkers.

The cost of the installation, operation, and maintenance of repeaters (usually in remote locations to boot) isn't small. But it is absorbed by the group or individual operating the repeater. A "closed" repeater is one whose use is limited to a specific (generally the people paying for it) group. But the majority of repeaters in the country (all those operated by this Club are) are "open." If you use an open machine, nobody is going to send you a bill. (You can't be billed for a closed machine either.) But Hams are honorable people and invariably contribute the time and talent and dues to one or more of the repeaters they regularly use. There's no need to contribute to every repeater you ever talk on. Each user decides for himself when the level of his use obliges him to support a particular repeater. Some may just be a member of one club. Others who travel a lot may be members of three or four clubs.

-more-

is the "AutoPatch." This is a function that allows the repeater to be connected to the commercial phone lines. A user then can make a phone call by simply pushing a few buttons on the "tone pad" in his car or even on his "handy talkie."

You don't have to listen to the typical repeater very long before you notice the other characteristic. This one has nothing to do with the technology. You only hear one person talking at a time. You hear (well, usually) intelligent conversations. You hear courtesy. There's something about the easy relaxed communications of an FM repeater that brings out the best in people. And Ham radio brings out the best people.

The Public Says Thanks

The following was excerpted from a letter received as a result of traffic passed on our Hudson Valley Net: "Thank you so much for sending the Radio Gram which I received this morning... May I say a word of praise for the really great service you perform in so many ways."

Unusual Antennae

It turns out that you can use just about any conductor as an antenna. W2GIJ has discovered that the tin roof on the rear extension of the house loads up at 1.1:1 SWR at 3.84 MHz without using an antenna tuner. And the first contact on 75-meters was a guy in Illinois using his downspout and gutter as an antenna. The question is, what kind of radiation pattern does a roof give? It's a little hard to rotate the house to measure it. And in a storm, if the antenna blows away . . . (Oh yes, GIJ is the same guy who has a hundred-and-fifty Christmas tree lights lashed to his beam.)

Thanks — Keep It Up

After the rather sparse issue of the REPEEPER we put out last time, we were gratified to be buried by contributions for this issue. In fact, we had more than would fit. Among other things, we have technical articles by K2MI and W2FJT that will have to be postponed to later issues. Marty, K2MI, also has a list of toll-free numbers of electronics distributors that didn't fit this issue. By the way, if you run across any ad's listing '800' numbers, pass them on to Marty.

We also have three or four items that members clipped from other publications which we just didn't get time to summarize. (We don't print such items intact -- something about copyrights. If you do submit them, please note the original source.) WA2RUX was nice enough to send along another version of the ten-meter conversion of the Sears rigs. Since we recently ran W2GIO's article, we'll just make it available to those specifically requesting it.

Don't let the wealth of material for this issue keep you from submitting more. Now that we're (hopefully) back on schedule, we'll be chewing up raw copy fast. Keep it coming. We could particularly use articles introducing newcomers to two-meters techniques and procedures.

Anyone for Six ?

Wes (WB2OIA) would like to be in contact with those interested in six meters, say, Thursday nights just after the Hudson Valley Net or about 8:00 p.m. local time via 146.37/.97 .

AutoPatch Procedures

It is no longer necessary to ask for a Control Operator on the 146.37/.97 WR2ABB machine before making an AutoPatch. If you attempt to access the patch and find it "up," it means that a Control Operator is monitoring. All other procedures remain unchanged. The patch will be "down" if there is no Control Op.

This does not apply to 147.645/.045 WA2JKN/R machine. You can access that patch for testing purposes without a Control Operator but must dump the patch before the test call is answered. The access code is Star (*), drop the carrier briefly, Zero, then drop the carrier to listen for a dial tone. To drop the patch, hit Pound (#).

The 147.645/.045 machine also has tone-test facilities. Any valid TouchTone$_R$ the repeater hears will be answered with the corresponding CW. Please announce your intentions before transmitting tones to either repeater.

WR2ABB has a tape logging system. The recorder has been acquired but is not yet installed on WA2JKN/R. Please mail a card to "Lou Voerman, 25 Tamarack Hill Drive, Poughkeepsie NY, 12603" listing any completed AutoPatches.

The patch facilities on the Club's repeaters are available to members, transients (under control of a member), and anyone in an emergency

Wappingers News

Elsewhere in this issue you'll find a letter from Skippy, WD2ADL, to the Town Board of Wappinger Basically, the problem is that the Board has now passed (not yet at the time of the letter) a new zoning ordinance that contains some wording that should be of concern to all of us. The two provisions of the most concern are about the height of structures and about RFI.

One limitation restricts "projecting features" to "not more than twenty (20) feet above the roof." The other restriction of interest is the rather hazy, "No operation shall be permitted which produces any perceptible electromagnetic interference with normal radio or television reception in any area within or without the Town."

Other hams in the area are urged to submit their thoughts on the subject to the Town board. See the address on Skippy's letter. Even if you don't live in the Town of Wappinger, this law is of interest to you. It's just a matter of time before such restrictions start to spread.

The RFI provision (483.7) is probably the most frightening part of the law. It is also the part that the Town is simply not competent to enforce. If you read the whole zoning law, you will see that such nuicances as smoke and noise are carefully quantified. It is easy to make the measurements necessary to determine whether or not a particular operation is within or without the regulation. It is unlikely that any court would want to interpret "interference with normal radio or television reception." Of course, not many of us want to lay out the bucks required to take such an issue to court.

Read it again. "Within or without the Town." I might actually be able to bring K2BXG before the Zoning Board if he beats me out in a pileup. I could claim that he interfered with the DX station's "normal reception" of my call.

Tom W2GIJ

AMATEUR LICENSEES ARE WARNED AGAINST IMPROPER USE OF THEIR STATIONS IN HANDLING COMMERCIAL TRAFFIC

The Commission has received recent evidence that a number of amateur licensees are engaged in handling business communications directly or indirectly involved in commercial operations. These communi- are conducted on both the High Frequency bands and in particular, of late, the VHF bands. In the former, the manually operated phone patch equipment usually is utilized. In the latter repeaters using "autopatch" equipment have been used on a widespread basis for inter-connection with commercial telephone systems. There has been tremendous growth of amateur repeater stations over the past few years. This has enabled amateur VHF communication from automobiles over a large area of the country. An individual in a moving vehicle capable of accessing a repeater equipped for autopatch operation may easily communicate with practically anyone having a telephone.

Use of interconnection equipment is not prohibited in Part 97 of the Rules. Automatic "autopatch" equipment is being used increasingly by VHF repeater stations. There is evidence that this type of operation encourages the handling of commercial communications, which are not permissable in the Amateur Service. The Commission is greatly concerned that such operation may seriously jeopardize the evolutionary development of the Amateur Service in accordance with its "charter" contained in Section 97.1 of the Rules. Augmentation of the value of the Amateur Service as a "voluntary non-commercial communication service" must not be brought into question as a result of amateurs handling commercial traffic.

Boss FCC

A Letter From Don Masten

For the past three years the wife and I have been residing in an apartment complex. Here I see young people wasting their spare time with nothing to do. Then I listen to Mt. Beacon and hear young Amateurs spending their spare time in a worthwhile endeavor. I feel, when I hear them, our future generation is in capable hands.

Also, when I hear them it reminds me of my younger days when I started in Amateur Radio (1937). So I thought they (the younger generations) and the "senior citizen Amateurs" would like to know how I spent my younger days and how it paid off for me. Perhaps in other ways, but I feel the same can pay off for our young Radio Amateurs also.

I am a Life Member of SOWP (Society of Wireless Pioneers). This organization of professional radio operators has documented my professional and amateur radio career. When I appear in the "Silent Keys" all of these records will be available to my children, grandchildren, and future generations. I feel the history of the Mt. Beacon Amateur Radio Club is in line with this importance also.

I hope the readers find some value to apply to their own Amateur Radio and/or professional radio career. Modestly and humbly I do this for the good of the Mt. Beacon Club.

73's to all
Don B. Masten, Sr. W2LEL

See Don's article elsewhere in this issue. ed

Stick This to Your Computer

Two mathematicians, Ann Tenna and Skip Short, meet on the street in New York City. They haven't seen each other for ten years. Ann says to Skip, "How have you been?"

"Fine," replies Skip, "and since I saw you last, I've been married and have three sons."

"How old are they?" asks Ann.

"Let me put it in the form of a riddle," says Skip. "The product of their ages is thirty-six. The sum of their ages is equal to the number of windows on the second floor of the building across the street.

Ann thinks for a minute and says, "OK, but I need more information."

"Alright," says Skip, "my youngest son has blue eyes."

How old are the boys?

(Editor's note: Don't ask us, ask WA2IXG. And Steve, this better not be a joke. There is an answer, isn't there?)

Steve WA2IXG

External Keying Circuit

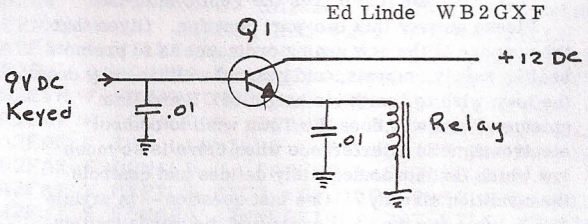
The circuit below provides a simple method for keying an external power amplifier or other external units from transceivers like the ICOM 211 which do not have external keying contacts.

The transistor and relay used are Radio Shack parts. The transistor is an NPN silicon 276-2008. The relay is a 12vdc., 500Ω, 50 ma. relay 275-206.

I cut a small printed circuit board which I mounted in a small mini-box. The ICOM 211 unit has sufficient room inside to mount the box. Power, 12vdc., is taken from the DC power plug on the rear of the 211. The 9vdc. keying voltage on the 211 is available on transmit from pin 6 at the accessory plug on the rear of the unit.

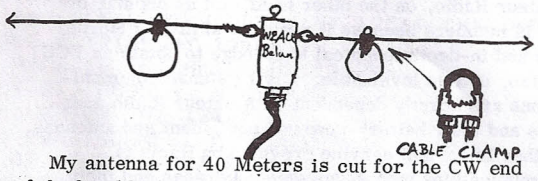
My unit was used continuously during the 1979 June VHF Contest for keying a Johnson GN2 Thunderbolt Kilowatt without any problems.

Ed Linde WB2GXF



U-Clamps Tune a Wire Antenna

Those U-shaped cable clamps make a convenient device for adjusting the length of a wire antenna for the low bands. Cut the antenna for the lowest frequency you intend to use. You'll use it as an ordinary dipole at that end of the band. To move it to the high end of the same band just form a loop in the wire at a convenient point and fasten it with a cable (guy wire clamp in some stores) clamp. The purpose of the loop is to take up the extra wire without having to cut it off. Of course, this isn't going to work if you're using insulated wire for your antenna.



My antenna for 40 Meters is cut for the CW end of the band but I usually leave in the loops that raise it to about the middle of the phone portion. If I do decide to drop down to the low end, it's a simple enough matter to lower the antenna enough to reach the center. A little silicone grease on the threads keeps the clamp easy to remove and reinstall. The capacitive loading of the loop of wire doesn't appear to effect the SWR in any way I've been able to observe. If anything, it might just broaden the bandwidth on the antenna.

At 40 Meters, the loop is only a few inches in diameter. However, you'll have to take in a good hunk of wire to adjust an antenna between low-80 and high-75 tuning. You could do this with several separate loops and a clamp on each. It is probably easier, though, to simply coil up several small loops and clamp them all with one cable clamp for each half of the antenna. It probably wouldn't do any harm to leave one big loop of wire, but the bigger it is, the more likely it is to snag a falling branch and to effect the antenna tuning.

My installation puts the tuning loops near the center. This is only because that's the most convenient point to reach for tuning. You could put the loops anywhere you find convenient. However, the nearer they are to the ends, the more they will effect the tuning. I have no experimental evidence to back this up, but I would recommend symmetry wherever you decide to put the loops. Otherwise, it might be hard to get both halves of the dipole cut to the same frequency.

By the way, I assume it's obvious that by changing the size of the loops, you can resonate the antenna anywhere within the band. I'd like to hear from anyone else who tries this system and has comments to make on their own installation.

Tom W2GIJ

Local 2-Meter Nets

Mt. Beacon ARA (meeting)	146.37/.97	Beacon, NY	Mon	8:00
Hudson Valley Net (traffic)	146.37/.97	Beacon, NY	M-F	7:30
Big Apple Net (traffic)	147.[illegible]	Staten Island, NY	M-F	8:30
Western Connecticut (traffic)	147.78/.18	Naugatuck, Connecticut	Daily	8:30
Nutmeg Net (traffic)	146.28/.88	Bristol, Connecticut	Daily	9:30
Southern District (traffic)	147.615/.015	Valhalla, NY	M, W, F	9:30
"	147.66/.06	Valhalla, NY	Tu, Th, Su	9:30
State Line ARC (meeting)	146.235/.835	Pearl River, NY	Sun	8:00
MARS, ARES	146.28/.88	Staten Island	Sun	9:00
NYC Repeater Assoc (traffic)	146.28/.88	Staten Island	Mon	9:00
MARS	147.855/.255	Kingston, NY	Fri	9:00
RACES	147.855/.255	Kingston, NY	Mon	7:00
Conn. Amateur Weather Sys.	146.28/.88	Bristol, Connecticut	Tu, Th	5:40
Westchester FM RptAsn (meet)	146.31/.91	White Plains, NY	Thur	8:00

The above is a partial list of traffic nets and on-the-air meetings that can be reached by two meters from the Mid-Hudson area. If people will let us know about additions and corrections we could repeat it on a regular basis.

Wes WB2OIA

Letter to Zoning Board

July 6, 1979

Town Board
P O Box 324
Wappingers Falls
New York 12590

Members of the Board:

I am an Amateur Radio Operator (Ham), WD2ADL, and a "CBer", KSC4178. I attended the hearing on the Town of Wappinger Zoning Ordinance June 26th. The following is a summary of the statement I made at that meeting.

The work done by CBers of REACT to provide assistance to motorists and police is well-known. Amateur Radio, on the other hand, not as popular or high in numbers because it requires ability in Morse code and in-depth technical knowledge to obtain an FCC license, is also invaluable. Civil Defense communications are heavily dependent on Amateur Radio operators and their battery-powered equipment and antennas. Another important service provided by Hams is communications with servicemen overseas and their families at home. Alan Hurka, WA2NSM (also present at the hearing) is active in MARS (Military Affiliated Radio System) and a Wappinger resident doing this work.

Amateurs and CBers in Wappinger are concerned about article 414 of the proposed ordinance because it appears to limit the height of antennas in Wappinger to twenty feet over the roof-line. Long distance communication on the twenty-meter band (the most dependable amateur band by the laws of nature requires antennas from fifty to seventy-five feet high for communications to be reliable. This wave length is about forty-five feet. To be effective in this band an antenna should be one wave length above electrical ground. This will give the most effective low angle of radiation.

CBers operate on 27MHz. The elements of their antennas are one half wave length long. The wave length in this band is over thirty-six feet. The height of the average CB antenna without support is between eighteen and twenty-four feet. The height at which a twenty-four foot antenna should be supported for effective communication is dependent on surrounding terrain. The FCC allows up to sixty feet. Thus the smallest supporting structure would place most CBers in violation of the Ordinance 414.

In considering this item, the Board should keep in mind that antenna towers, by their nature, are permanent. When people move they take them down. Radio antennas require maintenance, older radio amateurs usually lower their towers and serve as repeater stations feeding into distant networks. It is probable that the population of roof-top antennas will increase in Wappinger because of the popularity of CB. Most of these, however, are close to the twenty foot limit. Remember, twenty feet over rooftop is about thirty-five feet. I don't believe the population of antennas in the fifty to seventy-five foot range is very large in the Town. A seventy-five foot tower is very expensive. No one spends $1500-3500 without a real need for improvement in communications.

The other item of concern is Article 483.7 which addresses TVI and radio interference. This ordinance is outside the jurisdiction of Federal Communications Commission authority over radio emissions which know no boundaries. It is also clear that the Town lacks the technical ability and the authority to draft or enforce such an ordinance. The following are some sources of electronic interference:

- Electric Motors
  - sewing machines
  - radial arm saws
  - electric razors
- Radio Transmitters
  - police and fire
  - ambulance
  - radio and TV broadcast
- Nature
  - the sun
  - Aurora

How do we determine if it's one neighbor's radial arm saw or another's sewing machine that is interfering with your TV? If I own a poorly-designed TV and it receives signals from a police transmitter as well as it receives TV signals, what is to be done?

If the high degree of sunspot activity causes TV signals from New Orleans to be equally as strong as those from New York City and this causes "co-channel interference" on my neighbor's TV and he decides it's my CB, what's to be done? If one broadcast service interferes with another (e.g. the local FM station overloads the "front end" of someone's TV) what's to be done?

This doesn't mean the situation is hopeless. The FCC has urged the formation of TVI (Television Interference) Committees. I, and others, would be willing to work with the Town Board under existing Federal laws to understand our problem and to solve it thru understanding. The July 7 "TV Guide" mentions the TVI problem. It states that fifty percent of all TVI could be corrected by installing a high-pass filter at the TV set. A "Washington Star" news article quotes the FCC as saying ninety percent of TVI cases are the fault of the TV receiver and not the sender. High pass filters are available free from TV manufacturers. Let's get them to the people who need them.

You may feel that these are the concerns of a small minority. But emergency communication is everyone's business. Amateur Radio has been an asset to this country since the beginning or radio. CB has more recently become of public value. (Whether you have a CB or not, if you are stranded in your car, it is likely that your assistance will come via CB radio.)

Enclosed are several pertinent items:

- Walter vs. Board of County Commissioners of Baltimore County
- A Survey of Amateur Radio
  - section on antennas
- FCC Public Notice 87276
- A Solution to TVI Problems
- Washington Star
  - Strange sounds, bad pictures
- Amateur Radio... in the Public Interest

Please answer this two-part question. Given that the purpose of the new zoning ordinance is to promote health, safety, morals, and general welfare; why does the town wish to limit the height of CB and Ham antennas? and why does the Town wish to control electromagnetic interference when there is so much law which far more adequately defines and controls the condition already? One last question -- in article 483.7, what are the implications of the words "within or without the Town?"

Finally, my recommendation is that the following words be added to article 414: "Nothing in this section shall apply to antennas and support structures of non-commercial radio stations in the Personal Radio Service licensed by the FCC." These antennas must already comply with the requirements of:

- FCC Rules and Regulations
  - Part 95.437
  - Part 97.45
- National Environmental Policy Act of 1969
- FAA Form 7460-1

Further, Article 483.7 should be removed from the ordinance.

Please review the enclosures and feel free to call me if you have any questions. If I don't know the answer, I can contact the appropriate person in the Ham or CB community who does. My number is 896-8166. Thank you!

Best Regards (73)
Al "Skippy" Lococo

- more -

FM PLL Noise Abatement

Most newer FM VHF ham equipment makes use of PLL's (Phase Locked Loop) to generate both transmitter and receiver oscillator frequencies with crystal controlled stability. Although PLL's have solved the long-term stability problem, PLL's are prone to mechanical noise problems.

This article will describe the various steps that I took to eliminate this noise problem. Although I used my Kenwood TR7400A as the example, I understand that the problem is typical in most other PLL-equipped transceivers.

Figure 1, in simplified form, shows a typical PLL frequency generator. Notice that the VCO (voltage Controlled Oscillator), used as the VHF frequency oscillator, is divided down and compared to a crystal oscillator at a mush lower frequency. Any difference between the divided frequency and the crystal reference frequency results in a DC correction voltage being applied to the VCO in such a manner as to reduce the frequency difference.

It is also important to keep in mind, when dealing with FM transceivers, that frequency changes in either the incoming signal or the local oscillator will result in an audio output during receive -- or FM on the RF output during transmit. How can a PLL FM? Very easily. Let's take a closer look at Figure 1, taking particular note of the electrical/mechanical components of the VCO tuned circuit, as well as the components in the DC feedback loop. Either internal loudspeaker, or external car vibration can;

1. Vibrate the tuned circuit metal shield causing C_s to change at an audio rate.
2. Vibrate the coil windings causing L to change at an audio rate.
3. Vibrade C causing it to change at an audio rate.
4. Vibrate the printed circuit board at an audio rate causing all of the above at once.

This vibration results in a change in frequency that is FM detected, amplified, and if sufficient in amplitude, causes additional vibrations, as described above, so that the result is either a howl or audio mocriphonic noise during receive or transmit. You don't believe me? Well, just tap any of these items ever so lightly and listen to the audio output noise.

There must be a solution, and there is -- isolate the VCO from the vibration. The easy way, of course, is to shock mount the transceiver and use an external speaker. If you can't do this easily, which is likely in most mobile installations, here are the steps I took to eliminate the problem.

1. With great trepidation, I potted both the inside and outside of the VCO coil windings with GE silicone caulk and seal to eliminate vibration of the coil windings. I mention the trepidation because, if it hadn't worked, the silicone is very difficult to remove. I checked 144.00 and 147.99 for RF output.
2. I filled the VCO compartment with a strip of foam in order to dampen the vibrations in C_s due to the flexing of the VCO shield walls.
3. I also placed some foam stripping under the printed circuit board in order to dampen the mechanical flexing of the board, and, in turn, the VCO and filter components.

These steps are vibration reduction measures applicable to most PLL configurations. Step 4 is applicable only to the Kenwood TR7400A.

4. Kenwood, in their service manual on page 31 section 8, suggests separating C15 and C22 as far apart as possible.

These four steps completely eliminated the microphonic problem in my unit.

SUMMARY

Not all the steps that I have described are necessary in all FM transceivers. It depends on the electro/mechanical design of the unit. They were necessary in mine. The end result is a fine-sounding rig on both transmit and receive -- well worty my efforts.

Ed W2FJT

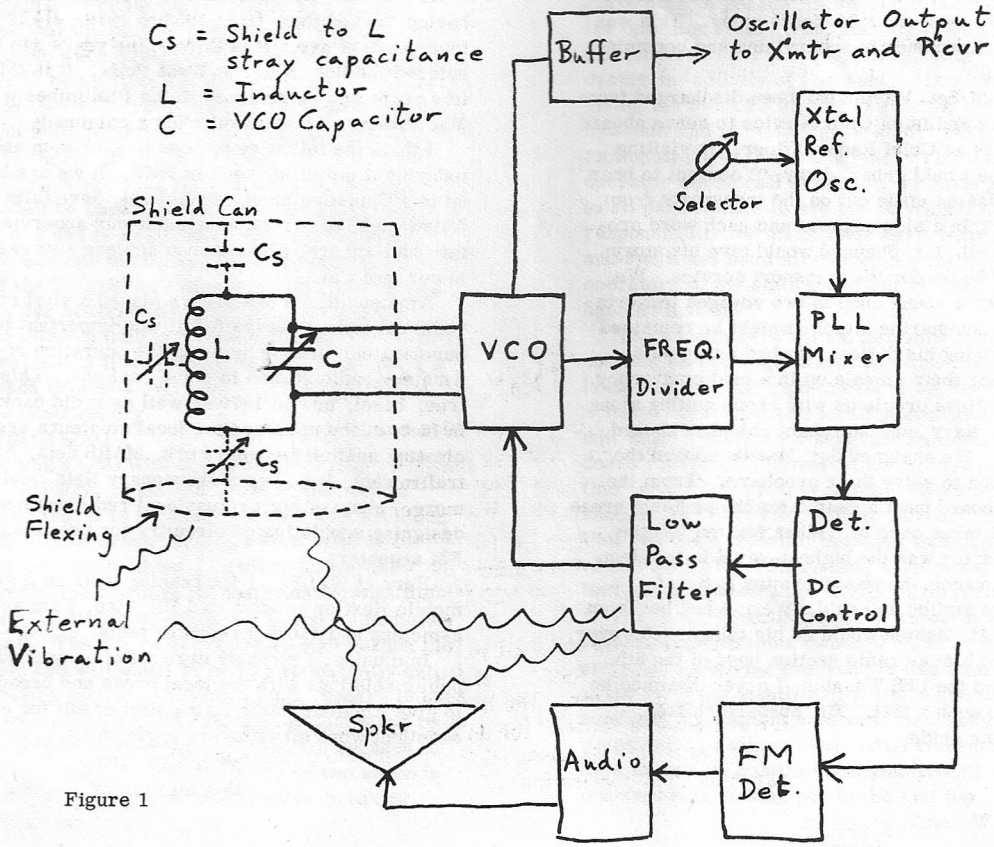


Figure 1

W2LEL
Don Masten

Recently the Post Signal Officer at the USMA West Point invited Don Masten and his wife for a day "at the Point."

Prior to a luncheon at the Officers' Club, Major Barnett, Post Signal Officer, had ex-Sgt. Don Masten relive those days when he was Asst. Army Chief Radio Operator "WUW." The Major said he wanted his staff to know "where they had come from and where they were going."

The story runs like this: It is September 1940. Don Masten is visiting the Post Signal Officer at the USMA, West Point. He has a fresh new second class commercial radio telegraph license. However, a berth aboard a ship as a radio operator is hard to come by. He has been operating his Amateur Radio station in the Army Amateur Radio System (now Mars). So he is seeking an enlistment in the Signal Corps USMA to become an Army radio operator in the Post Radio Station. He talks with Post Signal Officer, Major Stansell. The Major takes Don to the station and they talk with the chief radio operator Staff Sgt. Walter Morris. When Don leaves the Signal Officer, he receives word he would enlist him as a student radio operator in Post Radio "WUW."

The story continues: It is 1943 and Sgt. Masten has been transferred by his own request to the Army transport radio school as Brooklyn Army Base, NY. The C. O. of the school, Mr. Shepard, Chief Warrant, tells it like this:

Sgt. Masten was enlisted at the USMA based upon his dedication and patriotism. He comes to us highly recommended from the USMA based on his dedication to becoming a top-notch Army Signal Corps radio operator. He taught himself touch typing (to take traffic) and spent long extra hours to qualify as a radio operator Post Radio "WUW." After Pearl Harbor, when Chop Sgt. Morris went into the field, Sgt. Masten was promoted (three-stripe Sgt.) to the Asst. Chops. He supervised three other radio operators 24-hours a day. This was his first basic experience in supervising and becoming a leader of men.

It is 1945. M/Sgt. Masten has been discharged from the Signal Corps and is on Civil Service to serve aboard Army transports as Chief Radio Officer. In visiting Mr. Shepard, he would grin and say, "You want to hear how Sgt. Don Masten made out on the transports from 1943 up to now?" In a slow manner and each word pronounced very well, Mr. Shepard would give his story:

I groomed Masten for the transport service. We sailed him under a young chop in two voyages to North Africa. Under submarine attack at night he remained calm in discharging his duties. He had a way with men -- in keeping their morale up in a real emergency.

We had countless problems with chops getting along with the Army, Navy, and Merchant shippers aboard the transports. We assigned Sgt. Masten aboard the USAT Santa Rosa to solve their problems. From the time he went aboard until a year later the problem areas were very well taken care of. When Masten left the Rosa, the transport was the highest-rated in the fleet. For his performance, he was promoted to S/Sgt.

Mr. Shepard smiled and said, "Well, I had bet from the start that Sgt. Masten would do big things. However, when I assigned him as radio section head of the 8th. Sig. Det. aboard the USS Wasatch, I never dreamed he would be put to such a test. Mr. Shepard relates, showing extreme pride:

The USS Wasatch was Hdq Command US Navy and was selected to be Adm. Kinkaid's flagship. S/Sgt. Don Masten was promoted to M/Sgt Radio Section head of 8th Signal Det. aboard. The Det was under the command of Capt. (US Army) Robertson. Both he and Sgt. Masten were regular Army. As a result, they both got along very well. In Hollandie, New Guinea, Capt. Robertson gave the word the vessel would be going on operation to return Gen. MacArthur to the Phillipines. Also, word was received Gen. Krueger 6th Army would spearhead the landings and would set up Hdq. aboard the Wasatch. Sgt Masten knew this was a real hot operation. He started grooming his twenty-five radio operators. To sharpen his operators, some of the men lost their stripes for a week. After that, all of his men knew this was the ware area and they must follow orders closely.

All of this paid off as we find the USS Wasatch on operation in Leyte Gulf. The US Navy was in tight battle with the Japanese Navy. Gen. Krueger's radio communication aboard the Wasatch was excellent under the supervision of M/Sgt. Masten. However, keep in mind this was the first time the radio operators with him had been in tight combat. Masten worked around the clock keeping morale at a peak.

Finally, Leyte was secured. However, more was to come. The Wasatch went on operation to Luzon with Gen. Krueger aboard to put Gen. MacArthur into Manila. On this operation the Japs threw all they had at the fleet by using Kamakaze planes. Several Naval officers (high rank) and men were killed. All of this was rough on morale. Again Sgt. Masten worked very hard in keeping the morale up for his operators. On of his radiomen told me, "Whenever one of us got scared, Sgt. Masten was there to give the necessary boost.

Mr. Shepard went on to comment: Don Masten in 1946 is a Civil Service radio officer and is doing the same bang-up job of dedication to the service aboard Army transports coordinating radio communications. Already he has sailed six transports as Chief Radio Officer.

It is 1979. Ex-Sgt. Masten is retired from IBM, having served them from 1953 to 1976. He is sixty-four years of age. It is thirty-nine years ago he entered the Hdq. Bldg. at West Point. It is thirty-five years ago he returned to the Phillipines with Gen. MacArthur. We asked him for a comment:

I think the following applies to your men and women today as it did to me back in 1940. If we are brought up in a Christian home (discipline), have faith in our fellow men, and treat men under our supervision fair-and-square, all of us can achieve success in our own way.

Amateur Radio has always played a vital role in my radio career. I always felt it was important to justify our Amateur license by using the operation of our Amateur radio station to some real use. This holds true, I feel, now in 1979 as well as it did back in 1946. In fact, at the present time local amateurs are participating in Civil Defense work, MARS nets, ARRL traffic nets, Bro. Ben's Missionary Nets, and much more. Many of our professional radio engineers are designing sophisticated circuitry for use in our FM repeaters.

Here at W2LEL, I am running tests on a simple mobile Hustler antenna on LF. Also, I am active in 2-meters and 450 FM repeater tests.

In closing, I strongly urge all of us to conduct close public relations with the local press and broadcast radio to give Amateur Radio its rightful credit for all of the excellent work all of us are performing.

March 15, 1979
Don Masten, Sr. W2LEL

Fuddy Duddies

Every time any Club Officer mentions the need for good operating procedures by users of our repeaters, you will usually hear discussions of "the current regieme" being a bunch of "fuddy-duddies." Therefore, these operating procedures come from the the "Repeater and Autopatch Guide" of the Columbia (MD) Amateur Radio Association. This article was selected at semi-random for condensation because it comes from a well-run club and because the President (Al, N2AC) is a friend of ours. So, they're the fuddy-duddies. But, let's do it this way anyhow...

INTRODUCTION

Remember because of the nature of the repeaters, their power, and location, many persons are able to monitor the transmissions. For this reason, all persons must use the repeaters and autopatch in a manner that will set a good example of good operating procedures.

THE REPEATER

The system incorporates a time-out timer which is set for approximately three minutes. The timer is essential to limit single transmissions and to provide for automatic shut-off in case of a malfunction. The purpose is to encourage short back and forth QSO exchanges rather than long winded talk and to keep the system available for emergency traffic. If the system times out and turns off the repeater, it may be reset by dropping the input to the repeater.

PROPER OPERATING PRACTICE

In order to encourage a high standard of operating practice on the repeater the following paragraphs are presented.

The FCC requires control stations to monitor the repeater to insure compliance with the rules. We would not like to hear illegal and sloppy operating habits on the repeater because such could bring FCC actions against us and Amateur Radio as a whole. Remember that the control operators will knock the repeater down when questionable operation occurs. The policy is to act first and ask questions later. In most cases they will try to contact stations off the air rather than indicate the violation over the repeater.

PROPER IDENTIFICATION

Part 97.87 of the FCC regulations state that an amateur shall be identified with its call sign at the beginning and end of a QSO and at intervals not to exceed ten minutes during the QSO. Additionally, at the end of the QSO the call sign shall be given for the station, or for at least one of the group of stations with which communication was established.

The practice of transmitting the call signs of both stations each time you begin and end a single transmission is unnecessary.

BREAKING

In breaking a QSO with non-priority traffic, transmit only your call sign. This lets others know who is breaking and that it is a routine non-priority situation. The words "break-break" are reserved strictly for emergency communications. In using the phrase "break-break" the breaking station need not wait for an invitation to transmit, but can proceed immediately with the call. The others on frequency will pardon the interruption and will stand by unless specifically called by the breaking station. In some areas "break" is used to denote emergency traffic. Stations should stand by to determine if it is an emergency. Stations engaged in conversation should always pause one or two seconds prior to initiating transmissions to allow breaking stations to enter.

Sorry About That

OK, we blew it. This issue of the REPEEPER was supposed to come out about three months ago. But vacations, overtime, and a heck-of-a-cough all added up to put it waaaaaay off schedule. We resolve to do better in the future

Tom W2GIJ

"Unit Two" Who ?

"Unit Five from Unit One, do you expect any more activity at your location?"

"Unit One from Five, negative. I'm going to close down here and join Nine at the finish line."

"Roger Five. Nine from One, did you copy Five?"

"One, Nine, Negative."

"Five's coming to help you."

"One, Nine, Fine, QSL. I sure could use some help here."

"Unit Two, One. How is it at your location?"

"One, Two. Three more are passing my location right now. We need more water and cups."

"Roger. Three, One. Two needs water and cups."

Try looking this group up in your Callbook. They aren't there. After an hour of listening on a direct frequency you can hear all the numbers from one thru fourteen (make a game of it some time) but not one legitimate amateur call sign.

Some fourteen amateurs were out providing a fine public service for a major event that day. But they would have made a better impression on all listening (including the FCC) had their procedure included the following of FCC Rules.

The use of unit numbers or other meaningful tags such as street names or checkpoint numbers while working an event like a marathon or road rally does make a lot of sense. However, it does not relieve the operator from giving his FCC-issued call sign at the required intervals (beginning, end, and ten minutes) during an activity of this sort. The alternative to giving his own call sign is to give the call sign of the amateur who is "running the show" along with the (optional) tag of "Unit One" etc. This implies that the operator whose call is being used 1)has given permission to all participants to use his "station" 2)takes the responsibility for all of their on-the-air activities and 3)will get them all to sign his log as having been operators of his station and list all traffic his station handled that day.

The advantage of all participants being "units" of one station call sign is that only one person (the holder of that call sign) needs to log the activity. But a station is at only one location at a time, so each unit must identify as a separate station. And that doesn't mean that Numero Uno can say "W2AAA Unit One" every ten minutes and the others chime in in succession "Unit Two," "Unit Three," "Four," etc. Unit one can't transmit the legal call sign on behalf of unit nine. Unit nine would have to say "W2AAA, Unit Nine." So why not "KB2XYZ/Unit Nine" instead?

It's up to the coordinator of an event as to whether participants use their own call signs or his. But it's probably easier for everyone to use their own calls at the required identification times and use unit numbers, checkpoint numbers, or whatever at all times during such an event. And remember, you don't have to ante up a call sign if you haven't made a transmission lacking one in the last ten minutes.

Tom W2GIJ