

SPRING TUNE-UP FOR YOUR RIG!

APRIL 1963

50c

S9

the citizens band journal

DELUXE YOUR HEATH CB-1!

THE TRUTH ABOUT CB T.V.!

A 1 TUBE CB TRANSCEIVER!

PART 15 OPERATING GUIDE!

A CB "HAM" LICENSE?

A FOLDED GROUND-PLANE!

PART 15 CALLBOOK!

A COAXIAL BEAM ANTENNA!

HOW'S YOUR MODULATION?

LATEST F.C.C. NEWS!



Page 13

Customize Your Station!



NEW!

INTERNATIONAL

Model 1500 . . . for the Hobbyist . . .

Now . . . you can be on the air, and operate a two-way radio, without a license. The new International Model 1500 Executive transceiver is certified to meet all FCC Part 15 requirements for short range radio communication within the 27 mc frequency range.

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The Model 1500 Executive puts the maximum RF power into the antenna by combining the transmitter and antenna for rooftop mounting, thus eliminating loss through a transmission line.

A second unit houses a field proven supersensitive receiver and exciter, while a receiver preamplifier located at the antenna boosts weak signals for better reception. Another feature of the Model 1500 is a special crystal filter for reducing interference from adjacent channel Class D two-way radios.



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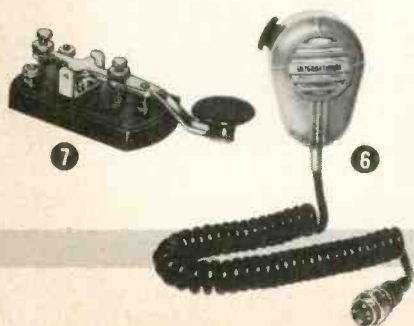
The Model 1500 is a complete package, ready to go on the air. The package includes: ① receiver/exciter complete with 8 sets of crystals, ② transmitter/antenna assembly, ③ antenna mount, ④ 5 foot mast, ⑤ 100 feet of control cable, ⑥ microphone, ⑦ key for (cw).

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Write for International's complete catalog of radio crystals and equipment.



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CRYSTAL MANUFACTURING CO., INC.

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the citizens band journal

Vol. 2, No. 4

April, 1963

S. R. COWAN, PUBLISHER

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STAFF

<i>editor</i>	Tom Kneitel, KBG4303
<i>associate editor</i>	Don Stoner, 11W1507
<i>contributing editor</i>	Lee Aurick, 2W2870
<i>contributing editor</i>	Ed Nall, 3W4470
<i>contributing editor</i>	Edwin Frederick, 2W4580
<i>contributing editor</i>	Paul Arnovitz, XM52127
<i>contributing editor</i>	John Krejc, 2W4586
<i>scapegoat</i>	Diana W. Merkle
<i>advertising representative</i>	Dick Cowan
<i>advertising representative</i>	Jack Schneider, 2W5669
<i>circulation manager</i>	Hal Weisner, KBG4528
<i>production manager</i>	Cary L. Cowan, KBG4036
<i>edit. production</i>	Sol Nussbaum, KBG4903
<i>publication consultant</i>	David Saltman

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READER MAIL

LAURELS

Tom,

Your "fabulous" magazine is on our mailing list for our club newsletter. Thank you for keeping up the good work and top-notch coverage of CB in all fields.

Vincent Cuker, 19W9224, Pres.
Macomb CB'ers Club
Mt. Clemens, Mich.


Editor:

You have a great magazine. Keep up the good work. You have a guaranteed buyer for life!

Van Kevin White
Santa Cruz, Calif.

We wish to thank all of the readers who have taken the time to write us letters like these. We are pleased to know that we're "getting out" so well, but are sorry that we can't seem to find enough hours in the day to reply to each one individually. Don't let that stop you from writing, however. Even if it's constructive criticism, we enjoy "reading the mail" from our friends in CB land.

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Tom,

About a month ago I wrote for permission to use one of your cartoon figures from S9 on my new QSL's. Here is the result. Thanks.

Bill Jesso, KHA1867
Lansing, Ill.

NOVEMBER ISSUE

Sirs:

I have not received all the 114 free valuable things of 114 gifts! With tobacco, CB cod card, 13 books on getting FCC licenses, a full color map of United States, first aid handbook. Will the free things I have not get yet?

Saul Waxman, Sr.
Lynbrook, N. Y.

This letter threw us out of joint. From what we can make of it, it seems that Mr. Waxman expects the 114 FREE things to come to him from the S9 office. It was very clearly stated in the November issue that each of the suppliers of the free gifts would have to be written to directly and individually. Also, what's a "CB cod card"? By the way, in case you are still thinking of sending for any of the materials offered there, cross out the following items: #104, 106, and 111. These items are no longer available.

FINKS FEEDBACK

Mr. Kneitel:

In your January editorial, "FINKS UNLIMITED," you refer to Section 605 of the Communications Act, and also a CB'ers rights to secrecy of communications. Your statement is, of course, correct. However, can you site me under which annotation in 47 CFR 605 the FCC is given the right to intercept these same private communications.

I have spent time in the Virginia Law Library researching this issue, especially in the light of the recent FCC release concerning the denying of the application of Warren Holleman (Annadale, Va.) for additional units and the revoking of his present license. This release contains *published* reports of his "private" transmissions. As yet I have not come across the case precedent which accords the FCC the right to intercept private communications. However, I call your attention to two cases in which it was stated that neighbor federal agents nor intra-state communications are excluded when it comes to "any person" being prohibited from intercepting the communications of another. *Diamond vs. U.S. (CCA6) 108 (2nd) 859* and *Nardone vs. U.S. 302 US 379*.

Can you give me any advice on this point?

Grace R. Langlotz, Editor
"The Groundplane"
Va. State C.B. Radio Assn., Inc.
Richmond, Va.

You may have a good point there, Grace. We checked around with several "informed sources" and were, as you, unable to dig up any conclusive information on the subject. Do any of our readers feel like tossing in a knowledgeable 2¢ worth?

The wind blows just as hard over your rooftop as it does over the police station...

The exceptional popularity of our **Magnum 27** Citizens Band Base Antenna is due in part to its towering resistance to the elements. Nothing short of a tornado will damage it or impair performance. Here's why:

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"Maggie" matches its professional twin in performance, too. End-fed, $\frac{1}{2}$ wavelength. Through exceptional improvement of signal-to-noise ratio, operating gain is 6 db. over any single element omnidirectional CB antenna made. Very low noise. Signal pattern is intensified greatly by low radiating angle.

We've told you what we know. Your friends with the biggest signals on the air can tell you better. So can your CB dealer — see him soon.

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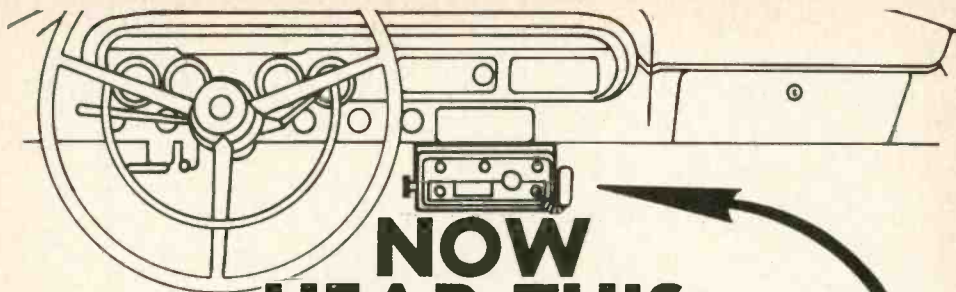


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Your "Maggie" won't fail.
in a gale -- but your
electric power might!



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... Browning Brings You 23-Channel Operation In A Mobile CB Unit.

Now, you can own a mighty mobile rig that lets you operate on any of 23 channels at the flick of a channel selector switch.

Model M-523 is designed and manufactured by Browning to give you big base station performance in a mobile unit. Ideal for car, boat, or other vehicles, Model M-523 has a transistorized DC power supply that can be mounted in any location, plus many other Browning features.

This compact powerhouse (8" x 3" x 9" deep) is easy to mount and leaves plenty of leg room. Contact your local authorized service center or write for information. Also available is Browning Model M-506, mobile transceiver for 6-channel operation.

OVERALL FEATURES

- Small size (8" x 3" x 9" deep) makes for easy mounting and more knee room.
- Rear lighted channel indicator.
- Transmit and receive channel selected simultaneously with flick of channel selector switch.
- Modern styling matches interior of all cars and boats.
- Price includes 12-volt power supply, speaker and microphone.
- Transistorized DC power supply

providing high efficiency and reduced maintenance can be mounted in any location.

TRANSMITTER SPECIFICATIONS

- Plate power input: 5 watts.
- Power output to antenna: 3.5 watts.
- Modulation — 100%, peak limited, plate modulation.
- Harmonic suppression: Better than 50 db down through use of TVI Trap.
- Frequency stability: .005% per FCC specifications.

RECEIVER SPECIFICATIONS

- Sensitivity: 0.4 UV for 10 db signal to noise ratio.
- Selectivity: 5 KC @ 6 db; adjacent channel 60 db down.
- Frequency stability: .005%.

ACCESSORIES

- AC power supply — Model AC-115.
- S-Meter with illuminated dial — Model DB-40.
- Rear deck speaker kit — Model SK-1.

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editorial

KBG4303 rides again!

by TOM KNEITEL

EDITOR, S9
300 WEST 43rd STREET
NEW YORK 36, N. Y.

FCC

Still no word from Washington about the status of the Part 19 proposed rule changes. We filed our petition, after having read and digested almost 90 reasonable petitions received here from clubs. There were actually about 3 times this many received here but most of them were pretty off-beat, some bordering on the fringe of actually being poison pen letters.

About two weeks after our petition was submitted we received a letter from Walt Marmet of M.C.E.U.'s National Headquarters. Although M.C.E.U. was surprisingly conspicuous by its absence from the roster of FCC petitioners when we worked out the S9 petition, they *suddenly* got all huffed up at some of our suggestions to the FCC. Walt even went so far as to threaten "immediate disapproval" of S9 "throughout the entire membership unless immediate changes are made."

This only proves a good point. We can't read your minds out there in CB-land. If you've got an opinion on something, write to us in time for us to do something about it. We've asked clubs time and time again to keep us abreast of their thoughts and activities; and a good percentage of them do. Still, there's always one group that screams bloody murder after our deadline because we didn't get the information on a jamboree, a petition, a meeting, a dinner, etc., etc.

By the way, we know that you'll be pleased to learn that S9's stand with the FCC was not changed in the face of M.C.E.U.'s attempted intimidation. They'll just have to hate us and learn that next time they shouldn't just stand there with their mouths hanging open while everyone else is doing something about a situation.

GETTING HAMMY

Here it is going on 5 years of the Citizens Radio Service. You'd think that by this time the members of the Amateur Radio Service would have recovered from the shock of losing the 11 meter band—unfortunately this is not so.

If you have ever listened on the Ham bands or looked through Ham publications you will see that a number of Amateurs still consider CB a "hot" topic of conversation and feel a great compulsion to offer all manner of solutions to what they imagine to be our problems. I have found that the great majority of these particular Amateurs are still peddling "sour grapes" or are well meaning (but naive) "do gooders." Most don't have a first hand knowledge of our problems and would do all concerned a favor by withholding further comment on the Citizens Radio Service.

Certainly we do not wish to fan the flames of the childish feud which many Hams insist on perpetuating, however it would seem that there is sufficient food for thought within the limitless bounds of the Amateur world so that its members would have enough to ragchew about without peering over the fence onto our side.

The Citizens Radio Service is *not* the little brother or a protectorate of the Amateur Service, it is a separate and distinct entity. It is no closer to the Ham service than are the Aviation, Marine, Police, or a dozen other radio services. By what kind of *Monroe Doctrine* have some of the Hams decided to become the "Defenders of the Frequencies," attempting to decide our fate?

Whatever their reasons, we have had 4½

Continued on page 58

new and available now!

"MESSENGER TWO" CB TRANSCEIVER



"TONE ALERT"



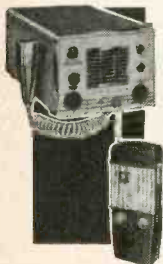
SELECTIVE
CALLING
SYSTEM

- 10 channels at flip of a switch — illuminated indicator!
- Increased sensitivity, high adjacent channel rejection!
- New . . . high efficiency noise limiter circuit!
- Provision for plug-in selective calling system!

Here's the new "Messenger Two" — with everything you've ever wanted in CB transceiver! Basic circuitry is patterned after the popular "Messenger". Highly efficient circuit design makes full use of maximum legal power . . . delivers a penetrating signal that "outperforms 'em all!" Looking for maximum receiver sensitivity? This unit is hot — pulls in signals you wouldn't know were around with less sensitive equipment . . . and adjacent channel rejection is tops! Tired of noisy receiver? New, noise limiter circuit in the "Messenger Two" lets you know what QUIET really means in a CB rig! Positive acting "squelch" and automatic volume control circuits — 10 channel coverage — push-to-talk microphone. Only 5 $\frac{1}{8}$ " x 7" x 11 $\frac{3}{8}$ ", easy to install anywhere.

Cat. No. 242-162 115 VAC and 6 VDC. \$169.95
Cat. No. 242-163 115 VAC and 12 VDC. NET

5 CHANNEL "MESSENGER" TRANSCEIVER . . . Now at a new lower price, the big seller in the CB field! Excellent sensitivity and selectivity — punches out a power-packed signal! "Squelch" circuitry.
Priced from \$139.95 NET



1 WATT AND 100 MILLIWATT "PERSONAL MESSENGERS"—Compact, 11 transistors and 4 diodes. Superhet receiver with exclusive tuned RF amplifier gives twice the sensitivity and 40% more range than similar units with conventional circuitry—more output than similar units with same rated inputs! Priced from \$109.50 NET

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BRAND NEW! A complete selective calling system with 37 different available tones!

The ultimate for any CB installation — designed for serious industrial, police and emergency use. Mutes speakers on your units until one calls another — then automatically your stations receive audio note and indicator light flashes "on", remaining lighted until call is answered. Eliminates annoyance of hearing "skip", electrical noise, or transmissions not meant for you!

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- Sharp selectivity guards against random triggering which broad response units can't prevent!
- Wide range of tones permits 37 different systems to operate on the same channel without overlap. Plug-in reed locks unit "on # channel!"—no missed calls due to "wrong" position on selector switches!
- Universal mounting bracket for left, right, or remote mounting under dashboard or desk!
- Tone signal heard beyond normal voice communication distance, increasing coverage by miles!

Only 1 $\frac{1}{2}$ " wide x 4" high x 7 $\frac{3}{4}$ " deep — wired with all cables and hardware.

Cat. No. 250-810 115 VAC and 6 VDC. \$59.95
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KEEP YOUR STATION IN TUNE WITH THE TIMES

It's Spring Tune-Up Time!

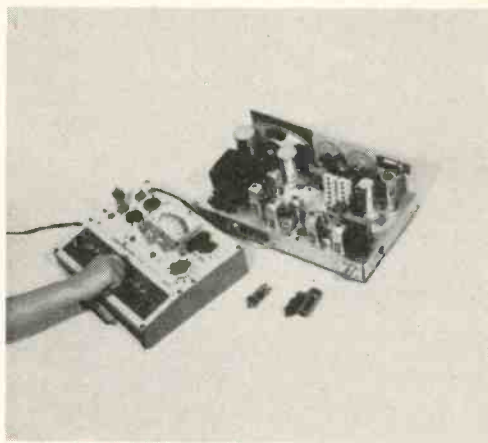
by HERB FRIEDMAN, 2W6045

It's tune-up time! Yup, the busy CB season is just around the corner; races, outings, vacations, the clubs' Big Bash, and all the other things which mean heavy use of the CB rig, are ready to start. Is your rig ready for the big load? How about a little maintenance to make sure?

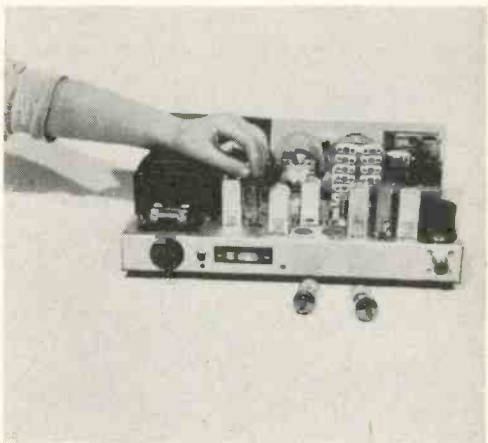
Any of the commercial broadcast boys will give you the first rule of maintenance: "If it's working today, and you want to make certain it works tomorrow, service it yesterday." What they mean in simple terms is that a periodic inspection, general cleaning and tightening goes a long way towards reducing the chance of equipment failure—in high-falootin' talk we call it *preventive maintenance*. One of the nice things about preventive maintenance is that you don't need any special tools or instruments outside of a tube tester; and if your club doesn't own one the druggist will be more than glad to let you use his (he thinks he'll sell some tubes).

Transceiver checkout starts with a complete tube check. Surprise, surprise, most of the tubes you thought would be weak (because they've been in the rig for two years) are going to be good. However, if any of the transmitter tubes check out on the low side of good, replace them. Transmitter tubes work a lot harder than receiver tubes and if there is any question as to them being *really good* the two or three bucks spent for new tubes will more than give its value in piece of mind.

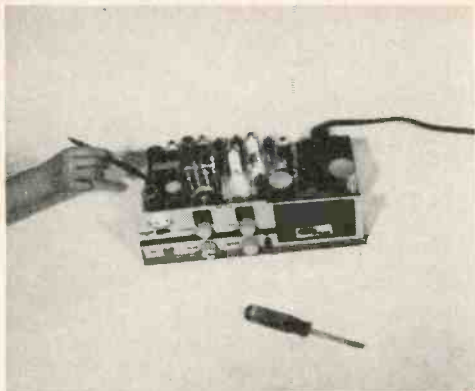
If you're the type who feels the last tube check (two years ago) is still valid, or maybe you're just plain lazy and don't care for a walk to the druggist, at least give the tube pins a cleaning. Tube socket pins are known to corrode (and if it is a mobile rig you can be *sure* they are corroded), the result is intermittent failure or rice-krispies (snaps, crackles, and pops). Sometimes you just wind up with a constant crackling noise



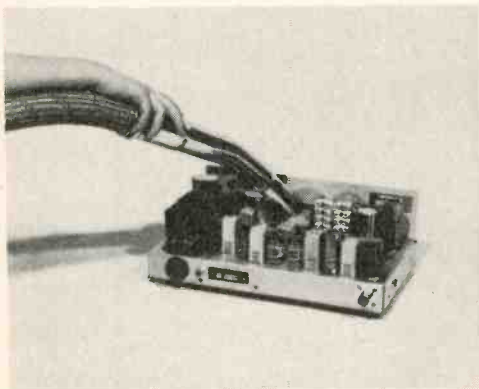
Any repair or checkup should start with a tube check. Often, something which appears to be an expensive repair turns out to be a tube.



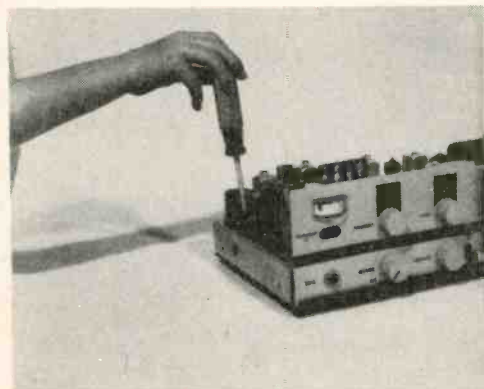
To clean both tube pins and socket, just remove the tube and replace it. This will often eliminate noise or intermittency.



To locate a microphonic tube, just tap all tubes (gently) with the rubber tipped end of a pencil.



A periodic vacuuming is a necessity, since noisy tuning or intermittents are caused primarily by dust.



Mobile operation can easily loosen a transceiver's mounting screws. To insure maximum reliability, check all mounting screws whenever you perform any maintenance on the rig.

which you accept as QRN (static). Corroded pins are easily cured, just remove the tube and plug it back in; do this two or three times and the socket, and tube pins, are clean.

One thing the usual tube tester will not indicate is a microphonic tube, the one that causes a "klong" in the speaker when the transceiver cabinet is tapped; or it may cause a howl when the volume is advanced above a whisper. All that's needed to locate the microphonic tube is a pencil with a rubber eraser. *Very gently*, tap each tube with the eraser; while you may hear a weak "klong" caused by mechanical transmission through the chassis, when you hit the microphonic tube you'll know it (man-what a "klong"). Replace it!

If you have one, the TR relay is next. The contacts break the B +, and carbon deposits, which can cause intermittent failure or reception, are common. The remedy, another quick job. Dip the business card the last salesman gave you in some contact cleaner, place it between the relay contacts, hold the contacts closed with your finger and pull the card through; again, two or three times and the contacts sparkle like teeth in a TV commercial. But be careful, *pull the transceiver's power plug before your fingers touch the relay.*

Next comes vacuuming. All rigs, unless yours is hermetically sealed, collect dust. Dust is an insidious enemy; whenever you look through a ventilation slot the dust seems to be just lying there. But as soon as your eyes turn away it moves onto tuning capacitor plates causing noise as you tune, it flows onto relay contacts or into TR switches making you hit the PTT a few times until the rig switches, and it fouls anything that looks like a contact. Dust is the number one enemy of electronic equipment yet it is easily defeated; **JUST VACUUM THE TRANSCEIVER WITH THE TUBES IN PLACE.** Notice we said vacuum, not blow. Too often it is thought that because there is more pressure than suction blowing will get rid of more dust. It does, the extra dust usually moves into every contact and socket on the chassis. Save yourself additional work, vacuuming may be slower but it's the way to do the job. The tubes are left in their socket during vacuuming to prevent dust from settling in the sockets—it takes only one speck of dust in one socket to foul the rig.

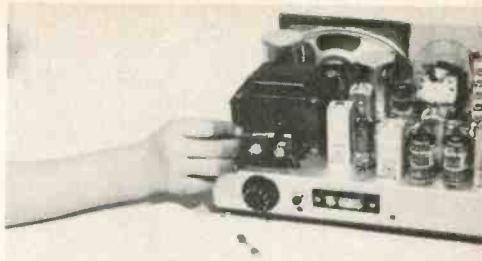
Now that we've got the rig cleaned let's make certain it stays in one piece. Mobile service is notoriously hard on equipment, and screws are always bound to work loose (even when lockwashers are used). Take a screwdriver and tighten everything, you'll be surprised how many screws will be close to falling-off. Whatever you do, *don't* tighten the RF and IF alignment screws. (Don't laugh. One CB shop in New York City averages one set a week with IF transformers which were made "shakeproof.")

While you're at it with the screwdriver open up the microphone plug and inspect the cable's shield braid. Constant flexing of the cable often leads to the braid wires breaking one-by-one. It's possible that all that's left are a few strands which will undoubtedly break the next time you're stuck on the road and are just about to give a shout for assistance. You may also uncover the reason for audio dropout or intermittent transmit switching. Give the braid a careful look. It is not unusual for the braid, which is the common mike and usually the switching common lead, to break cleanly under the outer insulation. It may make contact when the cable is straight and open when the cable is moved or flexed; only a close examination will find this stinker.

Now that you've got the rig spruced up and the components battened down let's put a little of the original zing back into the transceiver.

First on the list is the mobile fuse (never suspected this one, eh?). The constant heating of a mobile fuse can cause two effects, both of which cause the same type of performance loss. Either the heat can cause the resistance of the fuse element itself to increase, thereby producing a high voltage drop across the fuse, or the heat can cause the element to partially separate from the end caps, again causing a voltage drop. The result is less operating voltages in the transceiver and therefore less power output (and miserable receiving). It is not uncommon to pick-up a full watt output just by changing the mobile fuse.

While you're at the business of finding lost output how about checking (or tuning) the rig for maximum output. If your club has an output meter by all means borrow it (or at least a light bulb). If you can't get close to the original, new, power output you might be due for a minor component re-



Another commonly overlooked source of difficulty is the mobile fuse which can develop a relatively high resistance. If your fuse runs hot, it's wise to replace it whenever you service the rig.

placement. A loss in output of more than $\frac{1}{2}$ watt from the original value (with known good tubes) is indicative of something wearing out, and if you catch it now you can save quite a few bucks later; electronic components are well known for their ability to take a few other parts with them when they completely break down.

Receiver performance can be checked by comparison to what you remember original performance to be. Or better yet, borrow a new transceiver *of the same type* and check yours against it. If yours seems to be dragging signals in the mud most likely an alignment is in order. A word of caution about alignment. Contrary to prevailing CB opinion an alignment job on communications gear is not a job for a rank amateur. Unless you have had *considerable* experience with receiver alignment, or you know someone who has, let a qualified shop do the job; the little extra that a pro puts into it can mean a major improvement in performance. The difference between a good alignment and a bad one is a very fine line.

Finally, give a look at the antenna cable connectors; corrosion can increase the contact resistance and degrade both receiver and transmitter performance. A couple of rubs with steel wool will polish those connectors like new. But remember to blow out every speck of steel slivers (there will be some); those slivers make great short-circuits.

And now for the colored ribbon. If you've got the rig perking on all four you have something to be proud of—how about making it look that way. A little *mild* household detergent, a soft cloth, a few rubs over the transceiver's panel and the XYL is sure to ask how come you spent money on a new rig.

Now you're set until next spring! **SS**

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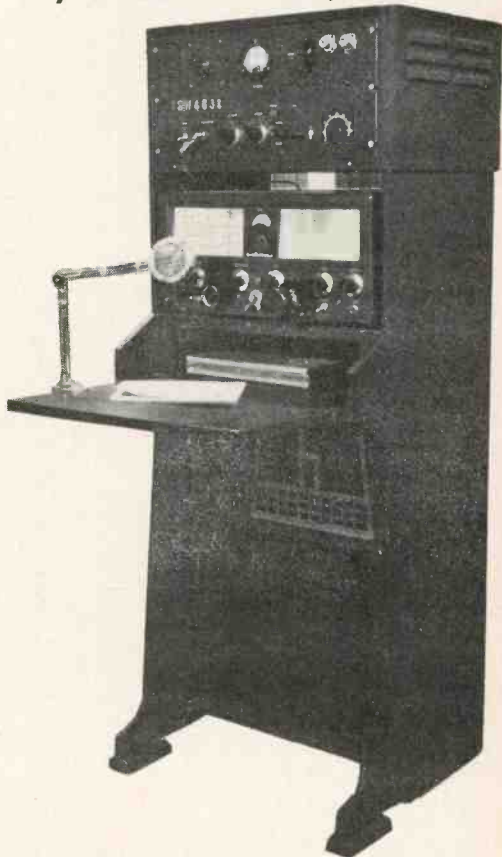
by LELAND R. REEDER, 12W4038

The manufacturers of communication equipment have gone all out to produce a flood of fine low power units for the Citizens Band. The trend has been to small compact transceivers because the band is looked upon as a mobile service. While such units are ideal in the family car or business truck they do seem lost at a base station and the average Citizen Bander, who probably has as much "experimenter" in his make-up as many amateur radio operators, wants something more impressive than presently available gear. What we have done at our base of operations to satisfy this urge is fully described here.

We had available an SX-71 Hallicrafters communication receiver which is a highly sensitive double conversion superheterodyne circuit covering from 560 kilocycles to 56 megacycles. While the spread on the eleven meter band was somewhat restricted we felt it would make a good receiver for CB activities. For a transmitter, we decided to use the transmitter section from the Heath CB-1 transceiver. These two units were combined and customized as shown in the accompanying photographs and diagrams.

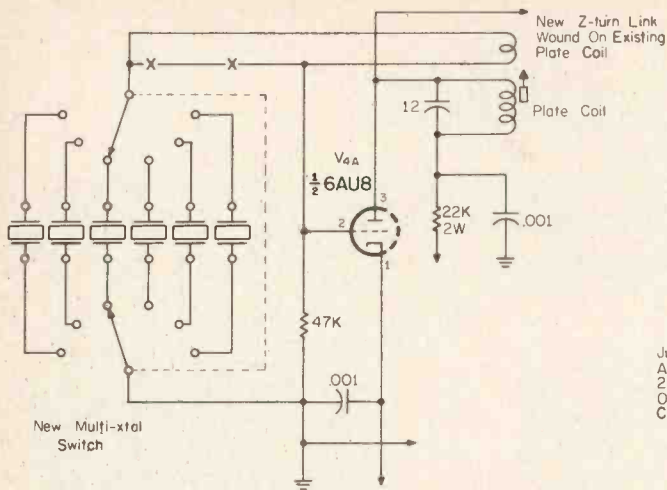
GENERAL LAYOUT AND WIRING

The transmitter along with the necessary transmit-receive relay, low pass filter, spotting switch and field strength meter were assembled in a metal cabinet shown as the top part in the photograph of the base station. We used a Dow-Key DK-60-G2c coax relay, which is operated by 110 volts AC and is equipped with a DPDT outboard switch for the control of accessory items. The relay was mounted on the back of the transmitter cabinet. A home-brew coax switch, using a lever type wafer switch, was made up and mounted on the front panel. This was used to cut a dummy load lamp into the antenna circuit for tuning and spotting purposes. The

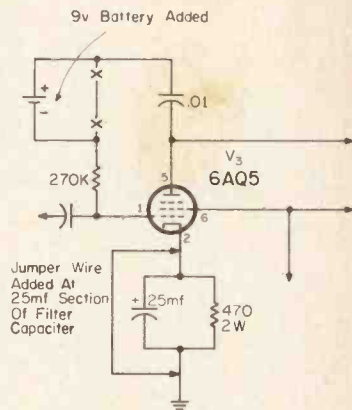


loss pass-filter was placed between the coax switch and the T-R relay using a Dow-Key male-to-male connector at the coax switch and a short length of coax cable at the relay end.

It was our intention when we first started on this project to use the receiver section of the CB-1 as a monitor and after a call was heard to switch over to the Hallicrafters receiver. But, due to the extremely crowded conditions on the band in this area and because of the lack of side channel rejection of



WIRING CHANGES AT CRYSTAL OSCILLATOR



WIRING CHANGES AT MODULATOR

the regenerative receiver, this had to be abandoned. Although the photograph shows all the controls of the CB-1 transceiver brought through the front panel, only the transmit switch, the microphone plug and the power and transmit lights are needed when the transmitter section is used separately.

The outer metal of the CB-1, called the "Lunch Box" by many users, was removed and not used. The base of the chassis was enclosed with aluminum sheets and a coax connector for the antenna circuit installed. A few vent holes were bored in the sides of the chassis but these were kept to a minimum because most of the heat developed was above the chassis. Modifications of the transmitter circuit are described later in this article for those who might be interested in using that dependable CB-1 in a customizing project.

A convenient three plug power outlet was installed at the rear side of the transmitter cabinet with an "Off-On" toggle switch located in the front panel. The field strength meter installation employed a conventional circuit composed of an IN34 diode, a 15-100 mmf variable capacitor and six turns of No. 3010 B&W Miniductor. The meter was mounted in the front panel and was a Triplet 221T 0-1 milliampere unit. The single probe wire was run out the back of the cabinet and installed under the shield of the coax cable to the antenna. Insulated wire

should be used for the probe so that there will be no direct electrical connection between the shield and the probe wire. Satisfactory meter deflection can be secured if about three feet of the probe is installed under the shield.

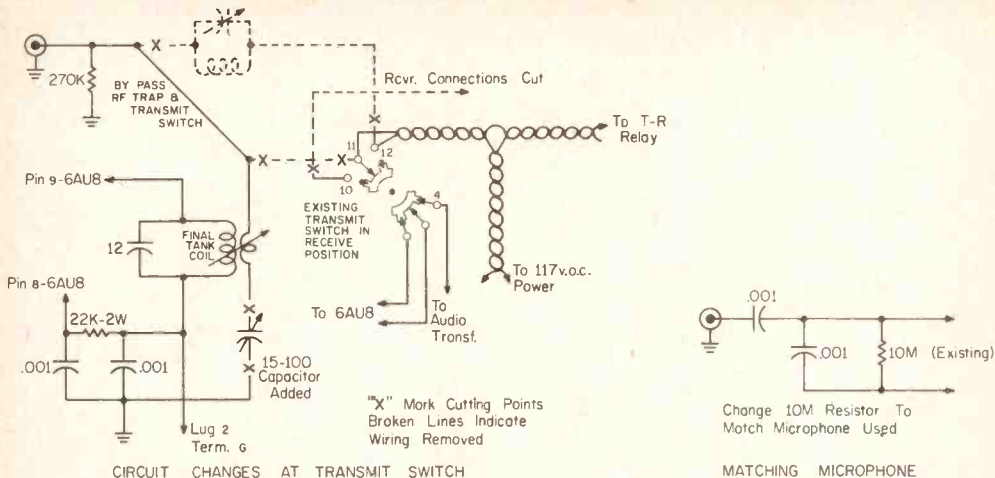
The receiver was made much more practical for operations on the CB by the addition of a converter changing the 27 megacycle incoming signals so that they could be fed into the broadcast band portion of the receiver. The converter was mounted direct to the coax fitting on the rear of the receiver with a Dow-Key male-to-male connector and connected to the T-R relay with coax cable. The converter, used at our station, is a hybrid affair developed by Bill McKellips, 12W5344, of Oakland, California. We have found this an excellent piece of gear particularly as regards to low noise characteristics.

The speaker is a 10" PM unit in a metal baffle box and is outboard to the receiver. The microphone is a crystal type developed principally for communications use.

TRANSMITTER MODIFICATIONS

No attempt was made to beef up the transmitter other than to increase the drive at the modulator and by using a top quality microphone, in our case the Astatic D-104. Transmitter circuit modifications are shown on accompanying diagrams.

A power line filter, to reduce the possibility of feeding stray RF back through the



power lines to our neighbors, was installed under the chassis of the CB-1 in conjunction with the power supply.

The changes to the wiring in the transmitter in order to use the transmit switch in the original unit as a master control and the addition of an antenna tuning capacitor is shown on still another diagram. Note, the RF trap in the original circuit is not used.

RECEIVER MODIFICATIONS

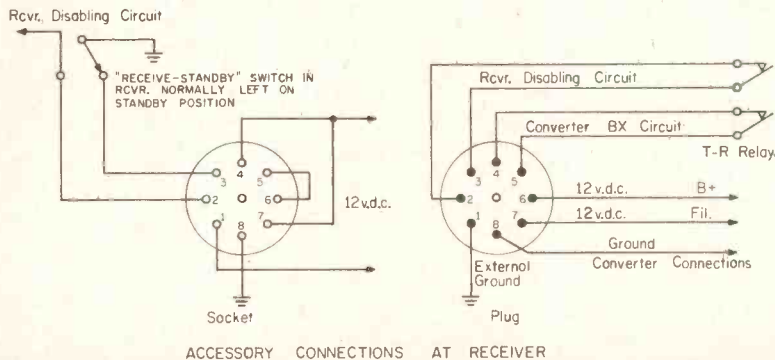
Most communications receivers have an octal socket installed on the rear side which can be used for remote control and power connections. The SX-71 Hallicrafters is equipped with a disabling circuit controlled at the "Receive-Standy" switch on the front panel of the receiver. This circuit was brought out through the octal socket for remote control by the outboard switch on the T-R relay. When the T-R relay is activated by the transmit switch on the transmitter the receiver will be automatically disabled during all transmissions. The plate current to the converter was also brought out to the

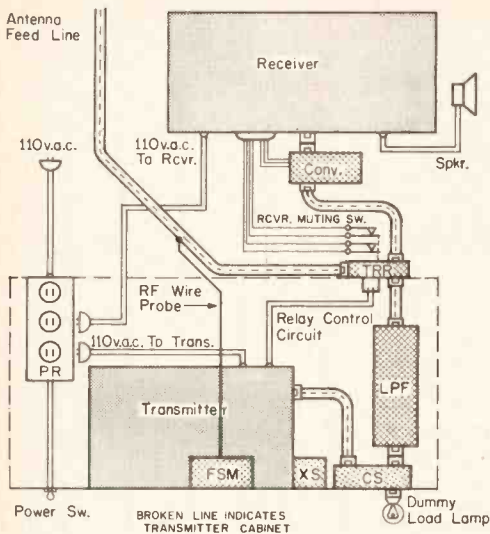
T-R relay for similar control. These connections are indicated on a separate diagram.

An auxiliary power supply to provide the necessary 12 VDC current for the converter filaments and plate power of the converter was built into the chassis of the receiver. This was made up from a 110 to 12 volt filament transformer and a diode for rectification.

OPERATIONS

The operation of this equipment is extremely simple. The power for all units is turned on at the toggle switch mounted on the front panel of the transmitter. For normal operations, the "Receive-Standy" switch on the receiver is always left in the standby position. To calibrate the receiver, the dial is set to one of the transmitting frequencies of the transmitter, the "Receive-Standy" switch is set in the receive position and the transmitter keyed. Usually, a slight adjustment of the calibrating knob or the band spread dial will bring the receiver into calibration which is indicated when the "S" meter is at the



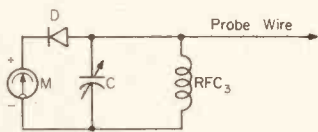


PR-Convenient Power Outlet
 FSM-Field Strength Meter
 LPF-Low Pass Filter
 CS-Coax Switch
 XS-Xtal Switch
 TRR-Transmit-Receive Relay

GENERAL LAYOUT AND CONNECTIONS

highest point. What that does is to tune the signal emitted by the dummy load lamp. After calibration is complete all switches are returned to their normal operating positions.

The sequence of operations when transmitting are as follows: when the transmit switch on the transmitter panel is keyed, plate power is supplied to the final stage of the transmitter, the TR relay is changed to the transmit position and the receiver and converter disabled by the outboard switch on the relay. As the transmit switch is released all functions return to their normal receiving positions.



M-Triplett 221T Meter
 C-15 To 100mmf
 RFC₃-Six Turns No.3010 B&W Miniductor
 D-1N34 Diode

FIELD STRENGTH METER

In our operations, a plastic tuning rod was run up through the top of the transmitter cabinet from the final tank coil adjustment. This was done to permit peaking the final without having to open the cabinet each time. Tuning is accomplished with the field strength meter which shows the relative strength being fed to the antenna at all times.

It will be a great help in tuning of the receiver to mark the dial for the most used channels. We used a piece of clear plastic mounted over the glass cover in front of the tuning strip. With the help of the spotting switch we marked the channel positions with a black waterproof ink.

At first the transmitter and receiver were mounted in a simple table top rack as shown. We later built the impressive console which is equipped with casters at the rear to permit easy moving about. We must admit we got our inspiration for the console version from PBX telephone switchboards found in many business places.

The complete customized base station described in this article gives a much improved operation on the Citizens Band. The sequence of operations are smooth and calibration is easy. The installation of a multi-crystal block is a great convenience when the channels are crowded. The use of an all band communications receiver provides fine tuning and excellent separation for the Citizens Band and, in addition, gives excellent coverage of the short wave frequencies for fine listening pleasure, monitoring the weather reports, official time checks, news, etc.

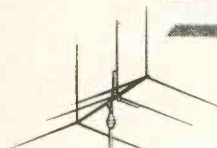
A number of similar customized stations have cropped up in the Northern California area. One station uses a National NC-300 in combination with the transmitter section from an early Lafayette transceiver. Another uses a Heath "Mohawk" receiver combined with a local custom built transmitter and still a third station uses an old Zenith broadcast receiver with a converter and the KB-1 strips of International Crystal Company for a transmitter.

For better CB operations and the pleasure of listening to the short wave bands we recommend the building of a "Private Communications Center" such as we have done. It should suit the most fastidious of the CB Clans.

Editor's note: If any of our readers have similarly customized CB installations, we would like to see photos. Perhaps we will ask you to write up your installation for publication in S9, just as we did with 12W4038.



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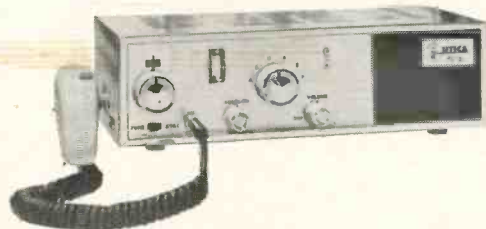
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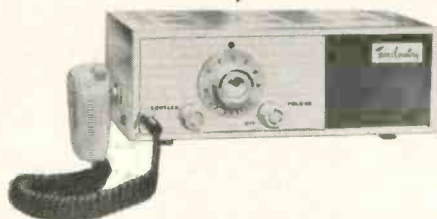
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SPECIAL REPORT

THE TRUTH ABOUT CB-TV!

IN ANSWER TO THE MANY RUMORS

by **TOM KNEITEL, KBG4303**
EDITOR, S9

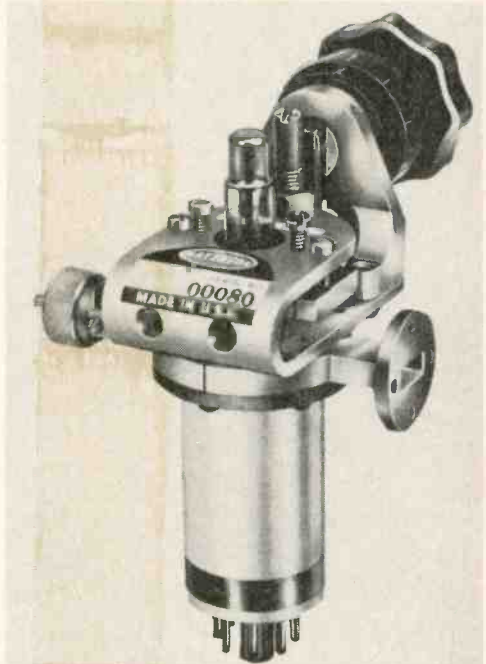
Hey, c'mon now! What are these letters and telephone calls about a supposed CB television service which everyone thinks is on the brink of being announced by the FCC? The past few weeks have brought us a sufficient number of inquiries to realize that somewhere out there in the great beyond there is either a prankster or a science-fiction buff on the loose! We had our research staff pry up a few stones on the subject, based upon the several pieces of fragmentary information we could piece together. Basically, this consisted of the following information: The band lies in the microwave spectrum between 17.7 to 19.3 and 19.4 to 19.7 mc/s (that means *Kilomegacycles* or, 17 thousand Megacycles). Also, the frequencies have not yet been officially announced but will be shortly.

Readers are asking where they can get equipment to operate in this band and also more facts on the operation here and on the opening of this band by the FCC. Let's look at the situation piece-by-piece.

EQUIPMENT

This frequency range is known as "Super High Frequency," or microwaves. Equipment for operation on these frequencies centers around a highly specialized type of electronic tube known as a *Klystron*. Now a Klystron isn't at all like a 6AL5 or a 6CX8, it's a highly complex piece of engineering with all manner of wires and pipes protruding from its metallic sides. Some Klystrons are relatively small (maybe a half foot high), others are taller than a man.

Looking through technical bulletins and other literature we found that there aren't too many Klystrons which will operate on frequencies this high, the most readily available being from Raytheon. For instance, the RK6253 (sells for more than \$400), the QK306 (also over \$400) and the RK6573



The Raytheon QK306 Klystron for the so-called "CB-TV" band. It costs over \$400.00.

(more than \$500). If you are gasping at the prices, you should know that these are actually *low priced* Klystrons—most sell for between \$3,000 and \$4,000, and one (the 4KM170,000LA, which Eimac makes for the 300 to 500 mc/s band) sells for almost \$25,000!

Now your Klystron will be using a novel parabolic dish type of antenna, many companies will be only too happy to sell you one for several thousand dollars (kits sell for slightly less).

This is to say nothing of the costs involved with getting the TV cameras, other expensive TV gear, microwave tubing for conducting the signals (they won't go through a wire at these frequencies), the installation of the equipment by highly trained specialists and the operation of the equipment by a scientist (the only people who can get anything working on these frequencies).



These are the antennas you'll be using if they ever come up with a CB-TV band. The little stick on the right of the large antenna is a woman.

OPERATION

As a matter of fact, very little is known about these frequencies. The only guidance we could get was to check the experiments of two scientists who ran some tests in an Amateur band located adjacent to the supposed "Citizens Band." They went up on top of two mountains several years ago and set the world's DX record of 14 miles.

Preliminary communications had to be established on a low frequency band so that both stations could find each other with their pencil-thin microwave signal beams. An interesting thing was found; water vapor in the air absorbs signals at these frequencies (you lose 1 DB per mile at 100% humidity), and with the output of the Klystron measured in microwatts (that's less than a milliwatt) each lost DB hurts.

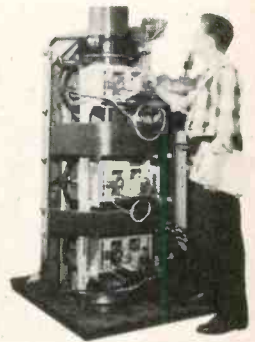
The equipment used was mostly home-brew, the Klystrons were GE types Z-668 and 2K33A (and even these were handmade in the GE labs).

It is understood that these frequencies have been used for two-day contacts only twice in the history of communications, the second of the communications being the experiment described here. The first time was by the same team of scientists when they set the original DX record of 800 feet in 1946.

Here's an interesting item we found: scientists at the University of Miami have been using frequencies adjacent to the supposed CB-TV band to fry up mice and rats. No kidding! Here's the formula: you place them near the antenna for a minute at a time, with a 3 minute pause between each exposure. After 28 minutes of this treatment they conk out for the happy hunting grounds. This can be sped up if the beam is directed to the head or stomach (the stomach is faster though). If it's a rainy day and the humidity is absorbing all of your signal from your \$50,000 CB installation, you can always go around de-verminizing the neighborhood.

As a matter of fact, any Radar technician will confirm that the prime rule of working with any kind of microwaves is to be careful. There have been more than a few technicians who wound up with serious eye cataracts because of lack of care around Radar antennas.

This is just what you need in your CB shack, a type X626 Klystron. Careful though, it constitutes a radiation hazard when in operation.



THE STATUS OF THE BAND

The only FCC literature on the allocation of microwave frequencies to the Citizens Radio Service was issued back in July 30, 1959 in Public Notice G-76709, titled "REPORT ON FREQUENCY ALLOCATIONS ABOVE 890 Mc/s." The only reference to the Citizens Radio Service in this release was the fact that on frequencies "16,000 Mc and above" authorizations would be made in the Citizens Service for "private intracity or local area point-to-point operations." No date for such operation or further information was given, and a current check of the Commission in Washington did not reveal information relating to any facts which would modify the 1959 FCC release.

We learned that the frequency band mentioned by our readers is allocated to "Operational Fixed" radio services, with no mention of the Citizens Radio Service appearing anywhere. The Operational Fixed stations operate there on the condition that they will not cause interference to "Industrial, Scientific, or Medical" devices operating on 18,000 mc/s (18 Kmc/s) (they're frying mice in Miami).

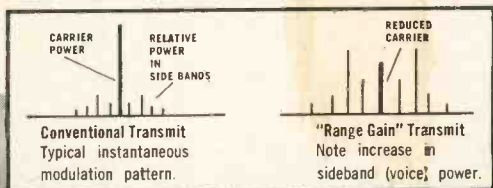
A check with the RCA Frequency Bureau, an organization which knows "everything" about present and forthcoming frequency allocations, confirmed this information.

So there you have it. If you've told your Aunt Sadie that she can soon watch you on TV from your CB rig, better call her back and tell her she leave her vigil at the set and go out and have a few beers.



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Build the mytee-mite

A ONE TUBE CB TRANSCEIVER

by JIM GIBSON, 2W7610

Here's a battery-maker's nightmare; a one tube CB transceiver which uses 4 different kinds of batteries. It's a good little rig however, and will be able to be operated under FCC Part 15, therefore not requiring a Class D CB license.

After examining the schematic diagram, you will see that in the receive position the 1LE3 is a superregenerative detector. The amount of regeneration is fixed by resistor R_1 in the plate supply. A subminiature transformer is wired into the circuit to enable the use of crystal headphones and to keep B off them, but a pair of low impedance magnetic headphones may be connected directly if desired. The B drain is only two tenths of a milliamperes when receiving.

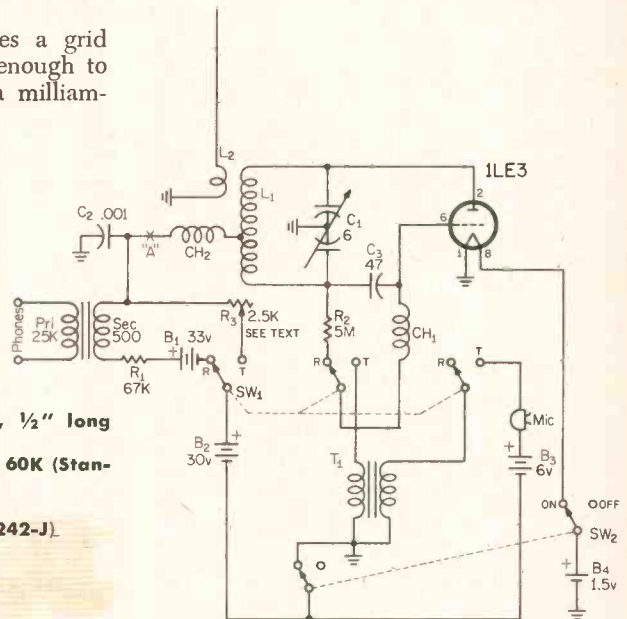
In transmit, the 1LE3 becomes a grid modulated oscillator. It is stable enough to be copied on a superhet. With a milliam-

meter inserted at Point "A", adjust R_3 so that the current reads no more than 3 mAs. When this point has been found, check R_3 on an ohmmeter for the resistance to which it has been adjusted. R_3 should then be replaced with a 1/2 watt fixed resistor of the adjusted R_3 value. You will now be running 90 milliwatts input.

The antenna can be any one of the various loaded whips available, but keep it less than 5 feet long to comply with the FCC regulations. We suggest *Hy-Gain TLW*, *Antenna Specialists M-53*, *B&K Mark Heliwhip* or

PARTS LIST

- C_1 6 uufd (Cardwell PL6-076)
- C_2 .01 uufd
- C_3 47 uufd
- R_1 67K, 1/2 watt
- R_2 5 Meg
- R_3 2.5K Pot (see text)
- CH_1 , CH_2 Ohmite Z-28
- L_1 19 turns B&W 3004
- L_2 4 turns #18 enam. 1/2" diam., 1/2" long spaced 3/8" from L_1
- T_1 Input transformer, pri. 100, sec. 60K (Stancor A-4706)
- T_2 UTC 5-03 (optional)
- SW_1 3 pole 2 pos. switch (Mallory 3242-J)
- SW_2 DPDT switch
- B_1 33 volts (Eveready 433P)
- B_2 30 volts (Eveready 506)
- B_3 6 volts (Eveready 724)
- B_4 1.5 volts (Eveready 720)
- Mike 100 ohm carbon type
- Antenna see text
- Misc. 1LE3 tube, socket, chassis and box, misc. hardware, connectors, battery holders



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S9 Magazine certifies that this low power transmitting device can be expected to comply with the requirements of Paragraph 15.205 of the FCC regulations under the following conditions: (A) When this device is assembled according to the diagrams and instructions published by this magazine, using components of the exact specifications described. (B) When in use for the purpose and in the manner indicated in the instructions. (C) When operated on a frequency between 26.97 mc/s and 27.27 mc/s and using an antenna limited to a single element not more than 5 feet long.

Thomas S. Kneitel

S9 Magazine, New York 36, N. Y. Dated: March 15, 1963

I hereby certify that I have assembled and adjusted this device in strict accordance with the above.

Owner's signature.

Date:

The finishing touch! To comply with FCC regulations it will be necessary for you to sign this tag, cut it from the magazine, and paste it firmly on the rear of the transceiver.

Crater Lake models.

The 1LE3 is a lock-in ("loctal") type tube which sells for about \$3.25 from most radio supply houses, it requires a special socket (*Amphenol* 88-8X, or equivalent) which is available for less than 25¢ from the same sources.

The MYTEE-MITE should be constructed in a metal box provided with a small handle. Then your body will act as a ground when you are holding the unit and aid in stabilizing the unit. The placement of parts and wiring is not critical, but the leads in the tuned circuit should be kept short.

When the transceiver is ready for testing, tune a well calibrated receiver to Part 15 Channel C (27.095 mc/s) and then adjust the variable capacitor C_1 until you hear the MYTEE-MITE's signal on the receiver. It may be necessary to prune the coil (L_1). In fact it would be wise to start out with more than 19 turns on the coil and peel off two at a time (one from each end) until the signal peaks at its highest level on an S-meter or FSM.

Do not attempt to substitute batteries of different voltages indicated, or to operate the unit with more than 3 mils on the plate when transmitting. It will be necessary for you to sign the coupon being run with this article, cut it from the magazine, and paste it to the unit in order to comply with FCC regulations.

The MYTEE-MITE should give you surprisingly good results, and considering its low cost, it can be most favorably compared to commercial units selling for many times its construction cost.



new! Hammarlund CB-23



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S9 MAGAZINE PART 15 OPERATING GUIDE

(Note: This is an un-official set of regulations which S9 proposes to be used by all Part 15 communications stations. No station is under any obligation to abide by any of these rules, with the obvious exception of those rules which happen to coincide with actual Federal Communications Regulations. It is hoped that all Part 15 stations will follow them as closely as possible in order to provide maximum use and enjoyment of all Part 15 frequencies.)

Inasmuch as the majority of Part 15 users have hobby motives, we have tried to pattern this guide as closely as possible after the regulations of the Amateur Radio Service.

We welcome all suggestions from Part 15 users concerning modifications and/or additions to this Guide. Any changes will be announced exclusively in S9 Magazine. This guide is the Copyrighted property of The Cowan Publishing Corp., New York 36, N. Y. Permission for reproduction of this Guide must be obtained in writing from the Copyright holder.)

REGISTRATION

11. Registration of Station

Each station operating under Federal Communications Commissions Part 15 shall be registered with S9 Magazine. This registration shall be accomplished by the owner completing the applicable forms and submitting them to S9 Magazine in the required manner.

12. Eligibility for Registration

There shall be no limitations on the eligibility for registration. Registration will not be given to citizens of governments which do not permit operation of these units.

13. Term of Registration

Each station shall be registered permanently. If the owner changes his address of registration, he will promptly notify S9 Magazine of his new address.

OPERATING RIGHTS

21. Limitation on Antennas

Part 15 stations will strictly conform to all current existing Federal Communications Commission regulations regarding antennas for Part 15 operation. Horizontal polarization is suggested in the band of 26.97 to 27.27 mc/s.

22. Location of Station

Stations may be operated at any fixed or mobile location. They are not to be operated in a territory under foreign jurisdiction where such operation is not permitted by foreign government regulations.

23. Authorized Apparatus

Any equipment is authorized so long as it does not exceed the limitations of Federal Communications Commission Part 15.

24. Assignment of Station Operation Identifiers

Station Identifiers will be assigned by S9 Magazine.

25. *Transmission of Station Identifiers*

(a) (1) The operator of a Part 15 station shall transmit the station identifier of the station or stations (or may transmit the generally accepted identification of a particular network) being called or communicated with, or shall identify appropriately any other purpose of a transmission, followed by the authorized Station Identifier of the station transmitting:

(i) At the beginning and end of each single transmission or;

(ii) At the beginning and end of a series of transmissions between stations having established communication, each transmission of which is less than three minutes duration (the identification at the end of such a series may be omitted when the duration of the entire series is less than three minutes), and;

(iii) At least once every ten minutes or as soon thereafter as possible during a series of transmissions between stations having established communication, and;

(iv) At least once every ten minutes during any single transmission of more than ten minutes duration.

(2) The identification shall be transmitted on the frequency being employed at the time and shall be either telegraphy using the International Morse Code, or telephony. In addition to the foregoing, when a method of communication other than telephony or telegraphy using the International Morse Code is being used or attempted, the identification shall be transmitted in that method.

(b) In addition to complying with the requirements of paragraph (a) of this section, an operator of a Part 15 station operated as a portable or mobile station using radiotelegraphy shall transmit immediately after the Station Identifier of such station, the fraction character ("DN") followed by the initial of the Part 15 call area in which the portable or mobile Part 15 station is being operated, as for example:

Example 1. Portable or mobile Part 15 "Atlantic" station operating in the "Southern" Part 15 call area calls a fixed "Northern" Part 15 station: "N17 N17 N17 DE A9 DN S A9 DN S AR."

Example 2. Fixed Part 15 station answers the portable or mobile Part 15 station: "A9 A9 A9 DE N17 K."

Example 3. Portable or mobile Part 15 station calls a portable or mobile Part 15 station: "P8 P8 P8 DE W9 DN P W9 DN P W9 DN P AR."

When telephony is used, the Station Identifier of the station shall be preceded by the words "this is" or the word "from" instead of the letters "de", followed by an announcement of the geographical location in which the portable or mobile is being operated.

Example 4. Portable or mobile Part 15 station operating in the "Northern" Part 15 call area calls a fixed Part 15 station: "NORTHERN 17 NORTHERN 17 NORTHERN 17 THIS IS (or FROM) ATLANTIC 9 ATLANTIC 9 ATLANTIC 9 OPERATING PORTABLE (or MOBILE) 3 MILES NORTH OF JACKSONVILLE, FLORIDA, OVER."

(c) When operating aboard a vessel the station shall identify itself with the suffix "DN MM" when using radiotelegraphy, or "MARITIME MOBILE" when using radiotelephony.

USE OF PART 15 STATIONS

33. *Points of Communication*

A Part 15 station may be used to communicate *only* with other stations operating under Federal Communications Commission Part 15. Communications are not permitted with Part 19 Citizens Radio Stations or with Amateur Radio Stations. Part 15 stations may be used for radio control purposes as outlined in FCC Part 15.

34. *Broadcasting*

The broadcasting of music or other entertainment material shall be discouraged in the frequency band 26.97 to 27.27 mc/s.

35. *Codes and Ciphers*

Whenever necessary, Part 15 stations shall endeavor to utilize standard abbreviations such as the "10 Code," "Q Code" or other commonly accepted and established abbreviations.

ALLOCATION AND USE OF FREQUENCIES

41. *Frequencies and types of Emissions*

Further to the allocations granted in FCC Part 15, the following shall apply.

(a) 550 to 1600 kc/s. This band is occupied by commercial radio broadcasting stations. Part 15 stations operating in this band will locate no closer than 20 kc/s to the frequencies used by local broadcasting stations. Whenever possible, Part 15 stations operating in this band will operate on frequencies which do not end with a zero (i.e. 950 kc/s, 1050 kc/s, etc.) but will operate on

"split frequencies" (i.e. 747 kc/s, 981 kc/s, etc.). Avoid operation in the bands 630 to 650 kc/s and 1230 to 1250 kc/s.

(b) 26.97 to 27.27 mc/s. This band is occupied by Class C and Class D Citizens Radio Stations. Care should be taken to avoid operation which will interfere with these stations. Part 15 users are reminded that Class C and Class D stations have priority use of these frequencies.

The following channel designations have been made:

Channel A	26.995 mc/s
Channel B	27.045 mc/s
Channel C	27.095 mc/s
Channel D	27.145 mc/s
Channel E	27.195 mc/s
Channel F	27.235 mc/s
Channel G	27.245 mc/s
Channel H	27.265 mc/s

The following suggested uses have been made:

Hobby radiotelephone: Channels A, C, E

Hobby Radiotelegraph: Channels B, D

Radioteletype: Channel H

Misc.: Channels F, G

Whenever possible, Part 15 stations should avoid using Part 19 Class frequencies. If Variable Frequency Oscillator control is used for the transmitter, care should be taken to keep all emissions within the band and away from occupied frequencies. Modulated oscillators operate only on Channel C when using radiotelephone.

42. Logs

It is suggested that Part 15 stations maintain accurate station logs to include the following information:

- (a) Date and time of each transmission.
- (b) Station Identifier(s) of all stations called or contacted.
- (c) Frequency or channel used.
- (d) Type of emission(s) used.

SPECIAL CONDITIONS

51. Obscenity, Indecency, Profanity

Part 15 stations shall refrain from making transmissions containing obscene, indecent, or profane words, language, or meaning.

52. False signals

Part 15 stations shall refrain from transmitting false or deceptive signals, or any Station Identifiers which have not been assigned by S9 Magazine to the station he is operating.

53. Unidentified Communications

No Part 15 station shall transmit unidentified radio communications or signals.

54. Interference

No Part 15 station shall be used for willfully or maliciously interfering with or causing interference to any radio communications or signal.

MISCELLANEOUS

61. Contacting Random Stations

The general call for contacting random or unknown stations shall be the letters "CQ", transmitted by either radiotelephone or radiotelegraph.

GENERAL

71. Federal Communications Commission

All rules and stipulations of FCC's Part 15 shall be obeyed at all times, and in the event they are modified at a later date they will supersede any stipulations of this un-official Operating Guide.

72. Courtesy

All stations operating on Part 15 channels should make every effort to achieve courteous operation in order to permit maximum use and enjoyment of the facilities involved.

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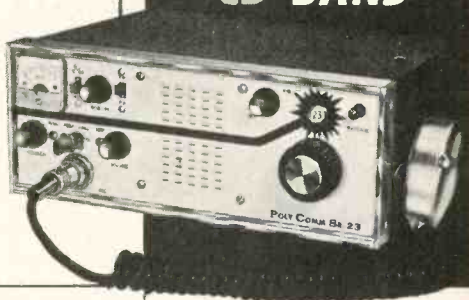
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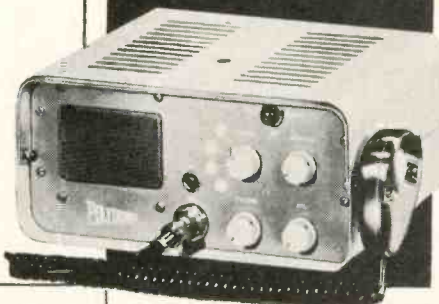
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In five short years, Poly-Comm circuitry has become the most imitated in the field. The reason is simple. TECHNICAL SUPERIORITY! Poly-Comms have Nuvistor front ends for unparalleled sensitivity in addition to more tubes than any other CB unit for more even distribution of gain, for greater immunity to variations in battery and line voltages and for greater AGC control. And that's not all — there are three .455KC IF stages plus a 6 Mc IF stage (16 tuned circuits) for better than 70 db adjacent channel rejection. Topping it all off, there's an ultra-sensitive noise limiter, supersensitive squelch, teflon wiring, steel case and weatherproof speaker. (It's no wonder that Poly-Comms are called the work horses of the industry).

The Poly-Comm Sr. 23 has the same basic guts of the N right down to the Nuvistor amplifier in addition to being the first set to bring "frequency synthesis" to CB . . . exclusive 23 channel crystal controlled tuning for immediate operation on all 23 CB channels. The features don't stop there . . . you can completely silence the Sr. 23 until one of your own units call . . . a nite-volume control monitors incoming calls at a pre-set volume . . . a message light indicates calls . . . an adjustable modulation control assures 100% voice modulation. Of course, there is an illuminated meter that indicates incoming signal strength, modulation and R.F. power output.

In every respect the Poly-Comms are designed by professionals for professionals that want value and rugged performance — not gingerbread and trim. We suggest you check the circuits yourself. Write for complete catalog and specifications.

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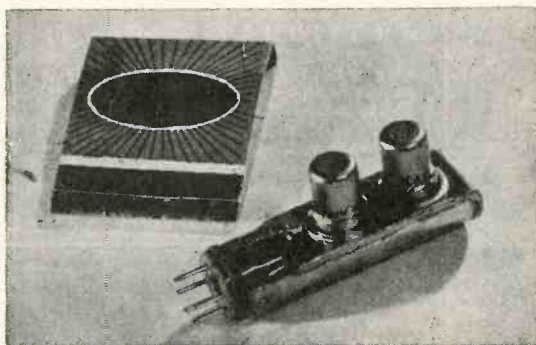
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FREE

Word sure gets around in the S9 crowd—we gave them out at the International Communications Fair and ever since then we've been swamped with requests from all over the country. Anyway, they're FREE as a reader service of S9—all you do is send us a stamped, self-addressed envelope (make it at least 7 by 10 inches if you don't want your certificate folded). Address your request to "Wall Certificate," % S9 Magazine, 300 West 43rd St., New York 36, N. Y. One to a customer, although clubs may request bulk amounts if an officer writes on the club letterhead.

If you throw in a paltry 25¢ per certificate, we will have your call sign boldly imprinted in large block letters on your certificate(s). Order as many as you like, but don't forget to send 25¢ for each one.



you asked for it

A CB'ERS HAM LICENSE?

STARTLING PETITION TO FCC MAY CREATE ONE!

by **DIANA MERKLE**
S9 EDITORIAL STAFF

An unexpected move by The International Crystal Manufacturing Company of Oklahoma City, Okla., stands a possible chance of creating a new class of Amateur Radio License with operating privileges in the 10 meter (28 mc/s) Amateur band.

The proposal calls for the FCC to create a so-called "Hobby Class" ham ticket which will allow a fellow to get on the ham bands without taking an exam and operate type accepted gear running 10 watts input.

Type acceptance would be based upon the equipment being able to maintain a frequency stability of .005% at wide temperature extremes, and the equipment containing speech limiting circuits. Other technical specifications were also designated.

Frequencies suggested for this class of ham license were: Unmodulated CW on 29.405, 29.410, 29.415, 29.420, 29.425 and 29.430 mc/s; regular AM phone on 17 specific channels spaced 10 kc/s apart from 29.435 through 29.585 mc/s.

Presumably, the Hobby Class Amateurs would receive full Amateur operating privileges other than those

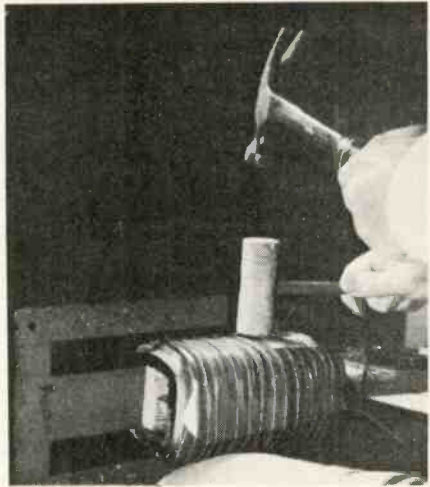
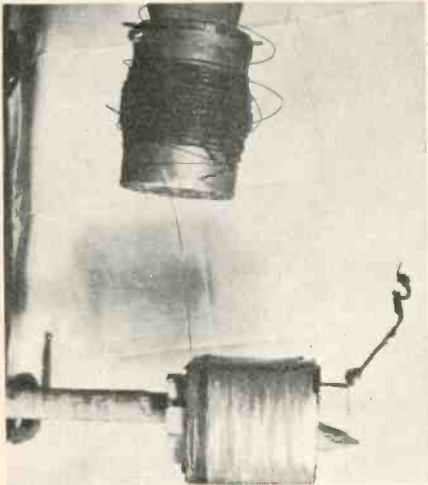
specific limitations regarding equipment, power, and frequencies. They would be able to communicate with all U.S. and foreign hams operating on other frequencies.

International Crystal's petition stated that the Part 19 CB'er has a keen interest in the hobby aspect of radio communications and that this interest is not served by Part 19. They suggested to the Commission that the creation of this new class of Amateur license with privileges would "start a large group pursuing electronics as a possible livelihood and create the technical pool of interest to the nation." They further pointed out that this has been proven by the applications for Part 19 licenses.

The Commission must now decide whether or not this proposed "Hobby Class" ham ticket will, in fact, be in the best interests of all concerned. It certainly does point up some interesting possibilities. We would very much like to know our readers' views on the International proposal. How about taking a few minutes to scrawl an opinion on a postal card, a QSL card, or an old FCC form 505.

S9

Dear Sir or Madam:



The Schlocamatic Transceiver Company
Turkeyville, West Dakota

Dear Sirs or Madams (whichever the case may be),

I recently purchased your "super Duper Schlock Special with ultra linear triple side-band and harmonic reverberation receiving." I bought the kit at your standard list price of \$7.95. I built it. It doesn't work so good.

You stated that it took a 12 year old only 300 hours to build it. At least your ratio is correct, I'm 36 years old and it took me 900 hours.

Now I'm not complaining about the hours which I devoted to the construction, nor am I complaining about the fact that I had to grind the crystals, wind the transformers and coils, make my own tubes from empty iodine bottles, crushing the carbon for the mike, and constructing the chassis from scrap sheet metal.

After having built all the parts, I then went ahead and built the rig, according to the beautifully mimeographed instructions you supplied on the post card. Then came the wiring and soldering. Since no wire was supplied, I used the XYL's hair pins covered with maraconi (I didn't have any spaghetti).

The set completed, I aligned it myself with the help of my Handy Dandy Schlock Signal Generator (also built from a Schlock do-it-yourself kit) and Hewlett-Packard frequency meter.

This brings us to last night, when things started to go wrong. I wanted to try each channel in numerical order, beginning with Channel 1.

Upon pressing the mike button for Channel 1, the lights went out. I at first had thought that I had blown a fuse, but when I checked I found that they had completely dissolved.

Channel 2 brought even more interesting results. When I pressed the button my mother-in-law vanished. **NOTE, DO NOT CHANGE THE CIRCUIT YOU USE TO ACHIEVE THIS EFFECT!**

I gave up for the evening and went out for a few beers to celebrate my good fortune.

Today I'm checking out the rest of the channels, in fact I am going to try Channel 3 right now. The mike in my hand seemed to vibrate slightly as I placed the channel selector on position 3. Now as I press the button I feel . . .

S9 |||

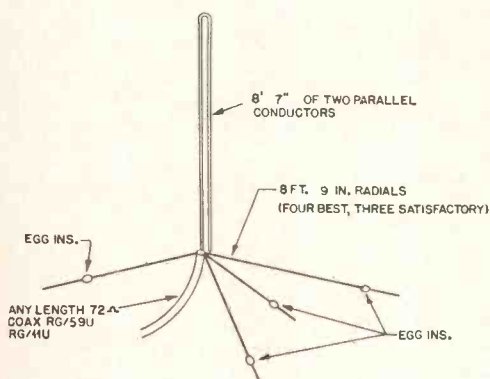
THE DORSEY SPECIAL

A JAZZY "TROMBONE"

FOR YOUR ROOF

by RON GIRARD, 7Q2024

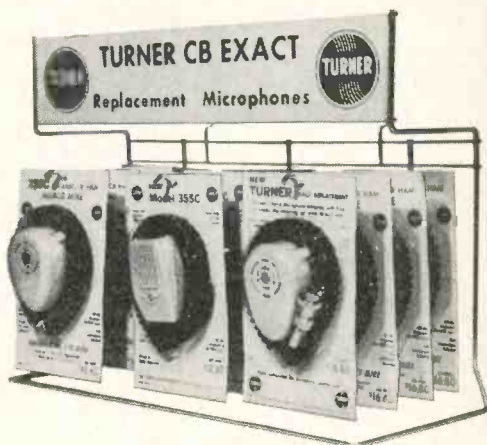
This antenna was named after Tommy Dorsey, probably because it resembles the "Sentimental Gentleman's" trombone. That's where the similarity ends, because we don't think T. D. could have resonated his slide horn on 11 meters! And resonate it does, it will give you a pretty perky signal when mounted on the eaves of your abode.



The main advantage of this folded "trombone" over a regular ground plane is that it has a more uniform low SWR across the entire band. It has a higher input impedance than a regular ground plane and the entire array is at DC potential, affording an extra degree of lightning protection and picking

THIS MONTH'S BRAINWASHING: *Subscribe!*

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Please send me Turner's new CB Catalog.

Name

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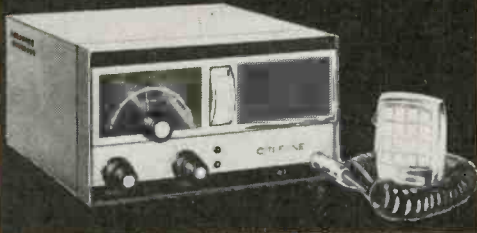
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up less random noise.

There are several commercial versions of the *Dorsey Special*, being a well known aid to commercial radio users under its more official monicker, the *unipole*.

The *Dorsey Special* uses 3 or 4 drooping radials of #12 enameled wire, which double in brass (or copper, if you don't like puns) as guy wires. Actually, the *Dorsey Special* is only just a *leeetle* more complex than a regular GP types, having a second conductor in parallel to the vertical radiator. This conductor is connected to the radiator at the top and also to the simulated ground at the junction of the radials and the coax shield at the bottom of the vertical portion of the antenna. It can be considered as half of a folded dipole vertically positioned and working against a ground. It has the higher input impedance and broader self resonance characteristics of the folded dipole.

The cheap (and dirty, as the saying goes) way of accomplishing the folded-over radial was to take a single 8 foot 7 inch length of copper pipe and a similar length of #12 wire and combine them to form the radiator. Two small standoffs attached to the pipe will keep the wire spaced away from it in strong winds. A 72 ohm feeder is a better match than 52 ohm, but if you already have 52 ohms on hand the losses will be minute.

The horizontal radials are slightly longer than the vertical one for the maximum broad-banded response. Cut them for 8 feet 9 inches (leave a little extra so you'll have enough to wrap around the insulators). Three horizontal radials spaced at 130° from each other are good, four radials spaced at 90° are even better.

Another version of the *Dorsey Special* was made from a length of 300 ohm TV twin-lead attached to a wooden mast. The conductors were soldered together at the top and connected to the inner and outer conductors of the coax shield at the bottom. It will perform about as well as the other version described here. The dimensions and spacing of the vertical elements don't seem to be very critical. Two columns of beer (or Metrecal, Coke, frozen juice, etc.) cans would probably do as well or better, but the basic materials were not handy and it will have to be left for a more enterprising CB'er to try these. Let us know the results of your experiments.

Results? The *Dorsey Special* will sure be in tune with your CB'ing. Try it and see!

THIS MONTH'S BRAINWASHING: *Subscribe!*

PART 15 CALLBOOK

We will be keeping this on a constantly revolving basis, calling on each call area every few months to bring it up to date with the latest additions. If you subscribe to S9 you will be assured of having a complete Part 15 callbook as we have no plans at present to issue these calls in one single volume.

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PACIFIC

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 155 G. Noonkester, Box 708, Soquel, Cal. 13
 156-157 D. Parker, 3015 Justus Dr., Soquel, Cal. 13
 158-161 E. G. Guillette, Jr., 1122 N. Center St., Stockton, Cal. 13
 162-163 R. C. Seeds, 1504 N. Farr Rd., Spokane, Washington 13
 164 P. G. Greaser, 12290 Excelsior Ave., Hanford, Cal. A
 165-166 E. A. Smith, 905 Madison St., Corvallis, Oregon A, B
 167 J. A. Harren, 1835 SE 33rd, Portland, Oregon A, B
 168-169 J. M. Manter, 2603 Delaware Ave., Stockton, Cal. 7
 170-172 R. K. Hull, Box 668, Ferndale, Cal. 4, 9, 11
 173 L. McGhee, 78 43rd St., Sacramento, Cal. A-F

- 174-175 L. M. Brooks, 129 S. 206th St., Seattle, Wash. 9
 176-179 G. K. Forchuk, 2239 SE 34th St., Portland, Oregon B, A
 180 P. W. Ryder, 306 N Canyon Blvd., John Day, Ore. 4, 9
 181-184 J. H. Wallis, 1132 N Monroe, Stockton, Cal. A11
 185-186 E. S. Weber, 444 S. Tuxedo, Stockton, Cal. 13
 187 S. Pryor, R. R. 1, Box 670, Brewster, Washington 7

ROYAL

- 11 J. P. Beaulieu, 386 Frontenac Sherbrooke, Canada 4
 12-15 H. F. Kirke, 64 Kingsdown Drive, Scarborough, Ontario, Canada B
 16 G. A. Calkin, 174 Waterloo St., St. John, N.B., Canada A
 17-18 P. E. Jones, 1522 St. Real, Quebec, Canada A
 19-22 J. Duchesne, 148 Gouldburn Ave., Ottawa, Ontario, Canada 7
 23 A. Mooser, 15 Hohner Ave., Kitchner, Ontario, Canada

SOUTHERN

- 11-12 P. Lewis, 1854 Brookwood Road, Jacksonville, Fla. 7
 13-14 R. E. Falk, 1225 Greenridge Rd., Jacksonville, Fla. 14
 15-19 W. A. Young, 1403 W. Vietserson St., Houston, Texas A
 20 J. L. Parish, Box 1161, Foley, Alabama
 21 L. Parish, Box 1161, Foley, Alabama
 22 J. Parish, Box 1161, Foley, Alabama
 23 Jill Parish, Box 1161, Foley, Alabama
 24 Jim Parish, Box 1161, Foley, Alabama
 25-29 J. Roberts, 1210 Jones St., Greenville, Texas C
 30-31 W. A. Cooper, 9216 Dickens Ave., Miami Beach, Fla. A
 32-33 A. Biltcliffe Jr., 103 N. Goforth St., Kings Mt. N.C. A
 34-37 C. Vincent, Drawer 871, Texas City, Texas 17
 38-40 R. C. Ballinger, 1501 Summit St., Little Rock, Ark. 9
 41-44 B. Warne, 1234 NW 14th Ave., Gainesville, Florida A, B, E, H
 45-47 J. Blake Jr., 610 Stetson St., Melbourne, Fla. A, B
 49-52 R. O. McIntire Jr., 676 Shepard St., San Pedro, California A, B, F
 52-53 J. Green, Rt. 1, Box 62, Helfin, Alabama 14
 54-55 J. Gammill, 1323 Monroe, Jonesboro, Arkansas A
 56-59 J. Blakeney, 2205 Camellia, McAllen, Texas 7
 60-61 L. Downing, 27 Bay Circle, Laurel, Mississippi 15
 62-63 W. A. Fergensen Jr., 854 W 17th St., San Pedro, Cal. 9
 64-65 B. Billingsley, 4127 DeLeon, Houston, Texas 14
 66-68 J. R. Davis, 2225 Park Pl., Boca Raton, Fla. B
 69 T. Branton, Box 68, Dayton, Texas A, B, C, D
 70-73 R. J. Wood, 6790 Pinellas Pt. Dr., St. Petersburg, Florida All 8
 74-75 J. V. Tooley, Box 395, Silver Springs, Fla. 11
 76 J. R. Berry, 303 Montrose, Lufkin, Texas 7
 77-78 R. Redditt, 1785 Gillem Dr., East Point, Georgia 7
 79 J. P. Holmes, 1301 Palmer Terr., Jacksonville, Fla. 11
 80-83 T. H. Carmichael Jr., 1357 Guff Field Dr., Mobile, Alabama 7
 84-86 L. L. Banes Jr., 1525 44th Ave., Meridian, Miss. A-C
 87 J. P. Langley, 1508 S. Flint St., Jonesboro, Ark. 16
 88-89 H. Blanchard, 207 Patterson St., Houma, La. A
 90 H. E. Carpenter, Box 741, Sturgis, Miss. A-H
 91 L. Lichtenstein, Proctor Academy, Andover, N.H. A
 92-93 W. J. Anond, 3110 Bartlett St., Baton Rouge, La. B
 94 R. Jaiman, 1323 19th St., Sarasota, Fla. All 23 & RC
 95-96 B. E. Ross, 101 N. Burke Rd., Pasadena, Tex. A, B, C
 97-98 L. A. Washburn, CMR 1, Box 2183, Biloxi, Miss. 7
 99-101 J. K. Warriner, 312 E. Harding Ave., Pine Bluff, Arkansas A, B, H
 102-103 W. S. Upshaw, Box 82, JC/C, Ellisville, Miss. A, C
 104 W. R. Rheinhart, 358 Quentin Dr., San Antonio, Tex.
 105-108 M. Jones, Carroll Dr., Houston, Mississippi 6, 8
 109-111 A/lc F. Quillen, 904 F South Rd., Jacksonville, Arkansas A, B
 112 J. Henry, Route 5, Philadelphia, Mississippi A, H
 113-114 J. P. Fant, 24 College St., Shreveport, La. A, H
 115-117 J. E. Dancer, Box 982, Bay City, Texas 13
 118 H. J. Mueller, 3323 Lillian St., Shreveport, La. A



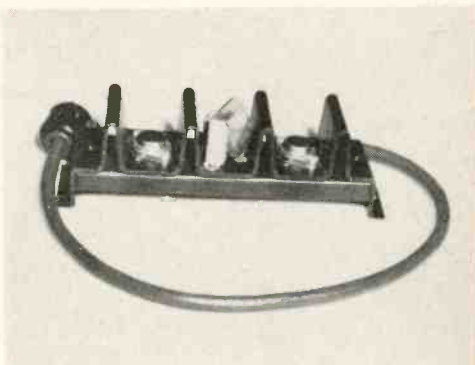
ON THE COUNTERS

A number of readers who have written for further information on learning CW (code) will be happy to learn that Howard W. Sams & Co. (4300 West 62nd Street, Indianapolis 6, Ind.) has just issued their "International Code Training System." This consists of 3 double-sided 7-inch LP records and a text book designed to start you from scratch and take you as far as you want to go (or at least to 20 words per minute). The course goes for \$6.95.

The COMTRAN II is a new item on the market from BM Component Supply Co., Inc. (142 Liberty St., New York 6, N. Y.). This is a fully transistorized compression amplifier which requires no re-wiring inside

your present rig as it simply gets plugged into your rig's mike input socket. Frequency response is 300-2000 c.p.s. down 6 DB, 3500 c.p.s. down 12 DB. For use with any high impedance crystal or ceramic mike. We've seen this little unit in operation and it did a whale of a job. The manufacturer is looking for dealers, so if you've got a CB shop we suggest that you drop him a note.

Turner Microphones just announced a price cut in their popular 350C CB mike—in fact it's a full \$4 cut down to \$12.50. They also announced a new mike, the 356C, a ceramic which sells for \$12.50. The response is 80-7000 c.p.s., output is -54 DB. Turner's address is 945 17th St. N.E., Cedar Rapids, Iowa. They'll be happy to send you more data.

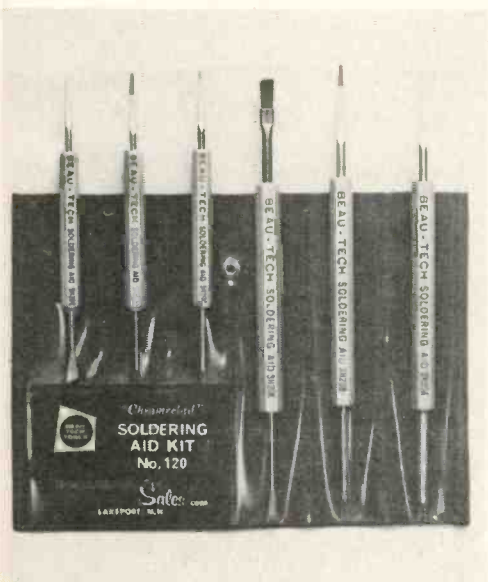


There's something new from *e.c.i.* (325 N. MacQuesten Parkway, Mt. Vernon, N. Y.), this time it's a transistorized power supply to replace vibrators in CB rigs. The unit goes for \$21.90, that's complete and ready for rapid installation—it isn't a kit!

Allied Radio announces the availability



of their talked-about C-22 CB rig kit. This is the one which goes for \$69.95 and has 5 channels (plus tunable and fixed receive features). Receiver is a superhet with two 1650 kc/s IF's, AVC, noise limiter, mike, etc. It's a nice looking set and will be a welcome addition to the Knight-Kit line.



Chester C. Fernald, Manager of Beau-chaine Sales Corp. (910 Old Nepperhan Ave., Yonkers, N. Y.), asks that we pass along the word to S9'ers about the "BEAU-TECH Soldering Aid Kit." Contained in a flexible case, the individual tools include 3 8" standard and 3 5 1/2" miniature soldering aids with an assortment of scrapers, reamers with forked and brush ends. Sells for only \$4.87.

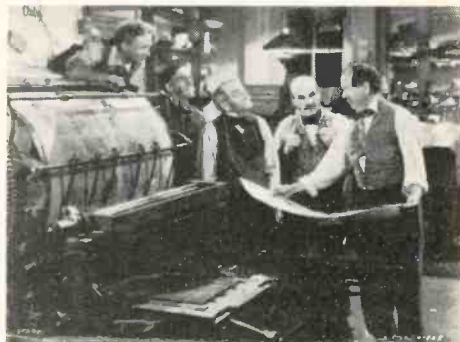
The BIG Switch Is To S9

CB'ers!

BE AN EDITOR!

IMMEDIATE OPENINGS!

NO EXPERIENCE NECESSARY!



Wouldn't you like to be an editor; wear horn rimmed glasses, pin-striped shirts and like that? You can become one easier than you might imagine—not only that, *you* can become an editor of the nation's largest selling and most popular CB publication, S9/the citizens band journal. Now, this is an honor and to keep the riff-raff out we ask that you send us only \$5. Upon receipt of same, we will promptly send you your do-it-yourself S9 Editor kit which consists of: Official S9 PRESS card; big, lavish, lithographed monochrome wall certificate, and on or near the first day of each of the next 12 months you will receive (at no additional cost) your Editor's copy of S9 for your comments. Your duties will consist of reading S9 from cover to cover, having a ball with our articles, and commenting to all and sundry about the merits of "your" publication.

Join us! Mark the word "Editor" on the postage-free envelope between pages 48 and 49, slip in your editorial fee and rush it to our offices.

Act now—this unique offer for a limited time only!



300 West 43rd Street New York 36, N. Y.

April 1963 • S9 • 35

There's a new antenna catalogue available from Cush-Craft (621 Hayward St., Manchester, N. H.). This is a color deal, fully illustrated, and lists all sorts of accessories in addition to the Cush-Craft antenna line. Drop Bob Cushman at Cush-Craft a card and tell him that you're an S9'er, he'll rush you the book free!

Last month we mentioned the Electronic Servicer of N. Y. (65-37 Queens Blvd., Woodside 77, N. Y.). Irv now tells us that, in addition to having the *Utica Town & Country* service contract for the New York metropolitan area, he has also become affiliated in the same capacity with Cadre Industries. Irv maintains complete service lab facilities and a whole bank of trained and qualified engineers.

Barry Electronics (512 Broadway, New York, N. Y.) has their new Spring, 1963, *Greensheet* catalogue out. For only 15¢ you can have one—it's a good deal because it's a reference guide to low cost tubes and all kinds of surplus and experimenters' gear.

S9 Lab Reports

RADIO SHACK TRC-27A

It has taken three years, but a CB manufacturer has finally come up with a real "sleeper." In case you don't know what a sleeper is we'll explain: A "sleeper" is a grade B picture which you find is class A entertainment, it's a twenty dollar toy which doesn't fall apart the first time it's used, and it's a *low cost* CB rig which is built like a battleship and performs like a gold-plated special.

Boston Radio Shack's TRC-27A transceiver (about \$90) deserves the first "CB SLEEPER AWARD." It is three channels crystal controlled both transmit and receive. All crystal sockets are accessible through a front panel cover plate. If you need more

WIN A COMPANION CB RIG—See page 37



IN ACTION!

... nearest thing to person to person



On the job... in your car... airplane... boat... office... home... farm... the only thing better than a "COMPANION" transceiver is an "eyeball QSO"*

*(which means talking to the other person face to face.)

See Your Authorized Pearce-Simpson Dealer or Write Us for His Name

Read Len Haas' Column "CB in Action," in S-9 Magazine every month





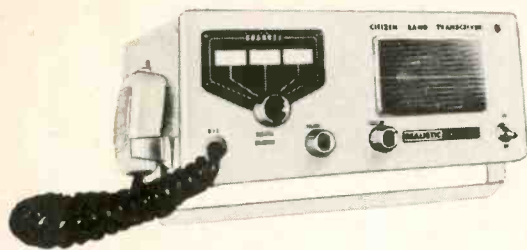
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2295 N. W. 14th STREET
MIAMI 35, FLORIDA



"Companion" Citizens Band Transceiver

"Sound" Reasons for Buying the "Companion"

- Channels—5, plus front panel crystal socket for use on any channel.
- Transistorized Power Supply—5 watts input, 3 watts into 50 ohms output.
- Adjustable squelch control. Modulation—high level limited to 95%.
- Pre-set automatic noise limiter, gated squelch.
- Ultra-sensitive Superhet receiver— $\frac{1}{2}$ microvolt.



CB IN ACTION

By Len Haas,
Sales Manager,
Pearce-Simpson, KBG-7527



In our last column we spoke of the restrictive proposed revisions for Part 19 of the FCC rules. We also stated that if the FCC and other regulatory bodies were made more aware of the tremendous contribution that CB makes to our society, they would be less inclined to restrict its use.

To help support this view, we interviewed Mr. Milton Wood, President of the Tamiami Volunteer Rescue Team. This unit was chartered by the State of Florida in June 1958 and now has 64 active members. The aim of the organization is to make the public more safety-conscious and to help prevent accidents.

Once an accident has taken place, the Tamiami Rescue Team swings into action. All members of this CB group must hold both standard and advanced American Red Cross first aid cards before they can be admitted into the team. 17 qualified first aid instructors are team members and hold classes, both for the public and new members. Three members are Scuba diving instructors. The Tamiami unit now possesses 8 qualified divers who assist in rescue operations on cars which plunge into road side canals, children who fall into water-filled rock pits and similar catastrophies.

The Tamiami Volunteer Rescue Team sets up CB base stations, which maintain a constant watch. A list of the men in the unit, their call numbers and telephone numbers are kept on file. When an accident is reported by a passing CB'er or phoned in by a witness to the accident, the nearest team member is called in to assist.

On December 10, 1962 a plane carrying a University of Miami student crashed at Tamiami Airport. Team member John Craig came to the rescue. He applied compresses to control the hemorrhaging and administered oxygen on the way to the hospital in a coast guard rescue helicopter.

The Tamiami Volunteer Rescue Team also furnished the first aid and rescue men for the Orange Bowl Regatta at Watson Island. In the International Skin Diving Tournament at Fowrey Rock lighthouse, both in 1962.

Our hats are off to the fine men of the Tamiami Volunteer Rescue Team and we know there are hundreds of groups just like this across this great nation of ours!

WIN A "COMPANION" CB

It remains for us to make our voice heard in Congress and to help prevent any detrimental revisions to Part 19 of the FCC regulations. Write us a letter and tell us how your CB group or how you, as an individual, have helped serve your community with CB. If we use your story in this column or our Pearce-Simpson advertising, we will award you a brand new "Companion" CB Transceiver. The first award will be made in May, 1963, and every three months thereafter.

WRITE — LEN HAAS, PEARCE-SIMPSON, INC., 2295 N. W. 14th Street, Miami 35, Florida. "CB IN ACTION" is YOUR story. Help tell it and win a "COMPANION" Radio Transceiver, too!

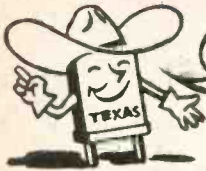
than three channels the plate can be left off to permit quick crystal changing. The receiver has two stages of 455 kc. IF amplification which results in very high selectivity—adjacent channel interference is at a minimum. Sensitivity is good. The noise limiter and squelch performance is average. Receive audio quality is very good.

The transmitter, which utilizes overtone crystals, has a buffer amplifier between the oscillator and the PA. A unique tune-up circuit is provided. A small side panel exposes the tuning controls, a lamp, and a switch. You connect the antenna, throw the switch to the left (placing the lamp in series with the antenna) and then tune for maximum lamp brilliance. At maximum brilliance the rig is tuned on-the-nose; you cannot do better with a separate tune-up meter. After "peaking," the switch is restored to its original position and you have slightly over two watts going to the antenna.

Transmit audio quality is "crisp." There is plenty of audio gain and 100% modulation can easily be obtained. The Koil-Korded microphone has a push-to-talk switch which can also be locked in the "on" position (for tests).

The power supply, 110AC and 12VDC, is transistorized, no vibrator is used. Both the AC and DC cables are provided, as is a combination carrying handle/mobile bracket.

Now to the best part, the construction. By removing two wing nuts on the rear panel, the entire cover (with bottom plate) can be slipped off. All components are exposed, and they are in "single layer"—a decided convenience if service is required. Any component larger than a coupling capacitor is firmly strapped to the chassis; all cables and leads are tight and secure. Extensive under-chassis shielding indicates one of the reasons for this rig's good receiver performance. Even the power plug, which is of the dependable Jones type has a double spring



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FREE CATALOG #961
with oscillator
circuits

Citizen Band Class "D" Crystals

CITIZEN BAND CLASS "D" CRYSTALS

3rd overtone — .005% tolerance — to meet all FCC requirements. Hermetically sealed HC6/U holders. 1/2" pin spacing. .050 pins. (Add 15c per crystal for .093 pins).

\$2.95
EACH

All 22 megacycle frequencies in stock: 26.965, 26.975, 26.985, 27.005, 27.015, 27.025, 27.035, 27.045, 27.055, 27.065, 27.075, 27.085, 27.105, 27.115, 27.125, 27.135, 27.145, 27.155, 27.165, 27.175, 27.185, 27.205, 27.215, 27.225.
Matched crystal sets for ALL CB units (Specify equipment make and model numbers) \$5.90 per set

CRYSTALS IN HC6/U HOLDERS

SEALED OVERTONE	.486 pin spacing — .050 diameter — .005% tolerance	
	15 to 30 MC	\$3.85 ea.
	30 to 45 MC	\$4.10 ea.
	45 to 60 MC	\$4.50 ea.
FUNDAMENTAL FREQ. SEALED	From 1400 KC to 2000 KC .005% tolerance	\$5.00 ea.
	From 2000 KC to 10,000 KC, any frequency, .005% tolerance	\$3.50 ea.
RADIO CONTROL	Specify frequency. .05 pins spaced 1/2" (Add 15c for .093 pins)	\$2.95 ea.



QUARTZ CRYSTALS FOR EVERY SERVICE

All crystals made from Grade "A" imported quartz—ground and etched to exact frequencies. Unconditionally guaranteed! Supplied in:

FT-243 holders Pin spacing 1/2" Pin diameter .093	MC-7 holders Pin spacing 3/4" Pin diameter .125
CR1A/AR holders Pin spacing 1/2" Pin diameter .125	FT-171 holders Pin spacing 3/4" Banana pins

MAKE TO ORDER CRYSTALS . . . Specify holder wanted

1001 KC to 1600 KC: .005% tolerance	\$4.50 ea.
1601 KC to 2500 KC: .005% tolerance	\$2.75 ea.
2501 KC to 9000 KC: .005% tolerance	\$2.50 ea.
9001 KC to 11,000 KC: .005% tolerance	\$3.00 ea.

Amateur, Novice, Technician Band Crystals

.01% Tolerance . . . \$1.50 ea. — 80 meters (3701-3749 KC)
40 meters (7152-7198 KC), 15 meters (7034-7082 KC), 6 meters (8335-8650 KC) within 1 KC
FT-241 Lattice Crystals in all frequencies from 370 KC to 540 KC (all except 455 KC and 500 KC) . . . 50c ea.
Pin spacing 1/2" Pin diameter .093
Matched pairs — 15 cycles \$2.50 per pair
200 KC Crystals, \$2.00 ea.; 455 KC Crystals, \$1.25 ea.; 500 KC Crystals, \$1.25 ea.; 100 KC Frequency Standard Crystals in HC6/U holders \$4.50 ea.; Socket for FT-243 Crystal 15c ea.; Dual Socket for FT-243 Crystals, 15c ea.; Sockets for MC-7 and FT-171 Crystals 25c ea.; Ceramic Socket for HC6/U Crystals 20c ea.

ENGINEERING SAMPLES and small quantities for prototypes now made at either Chicago or Fort Myers plants with 24 hour service. IN CHICAGO, PHONE GLadstone 3-3555

IF YOUR PARTS DEALER DOESN'T STOCK Texas Crystals, order direct and send us his name.

TERMS: All items subject to prior sale and change of price without notice. All crystal orders must be accompanied by check, money order or cash with payment in full.

RUSH YOUR ORDER NOW TO

TEXAS CRYSTALS

1000 Crystal Drive, Fort Myers, Florida

Dept. S9

Phone WE 6-2100

FOR SHIPMENT VIA FIRST CLASS MAIL AT NO EXTRA COST ATTACH THIS ADVT. TO YOUR ORDER!



lock. The TRC-27A is a rugged, well built rig.

The poor feature is the antenna jack. It is probably the worst phono jack made. It is slippery and sloped; it was virtually impossible to keep the plug on the jack. Luckily, the phono jack mounting pole, and the hole in the cover, is the same size as a standard SO-239, and we recommend an SO-239 be installed as soon as possible.

In terms of dollar value, the TRC-27A is an amazingly good buy.

THE McCULLOUGH AERO MOBILE ANTENNA

One of the most novel approaches to the problem of high gain mobile antennas is the new McCullough Aero Mobile Antenna. This unit fabricated of hard drawn seamless aluminum tubing is a full 3/8 wave or TWELVE foot antenna. Since this great length would develop great havoc amongst the trees and underpasses, it has been shortened to a more practical six foot length by a most unusual means. The antenna has been bent into two reverse curves resembling a giant paper clip. Short aluminum and plastic spacers brace the structure rigidly.

The advantages of the 3/8 wave antenna are considerable. The lowered ground wave pattern provides effective gain over the simple standard whip. The use of the reverse bends that mechanically shorten the antenna do not impose any losses in the system as is common with some types of loading coils.

Field tests made with this unit produced satisfactory results both mechanically and electronically. Wind loads of up to 70 MPH left the antenna undamaged and in fact the rigidity of the unit eliminated a good portion of the fading do to antenna lean. Reports from listening stations were good with a reported increase of up to one S-unit as compared to the standard whip.

The McCullough Aero Mobile Antenna would appear to be a quite effective approach to the maximum utilization of the mobile rig. The novel appearance will insure that all CBers will stop and take another look as it goes sailing by. Price Class \$18.00.

CANADIAN

G. R. S. NOTES

by **M. PAUL ARNOVITZ, XM52127**

1117 ST. CATHERINE ST.

MONTREAL 2, P.Q., CANADA

As mentioned in the November issue of S9, the Quebec 27 Mc. Pioneer Radio Club, now legally registered, forms the nucleus of English-speaking GRS (CB) interest in the to a present membership of 45, all ready and Montreal area. The club has grown rapidly eager to be of service to their community.

In a recent interview, club President Allan Cytrynbaum, XM-52140, reiterated "our 45 mobile units can all be ready for emergency service within an hour."

The Quebec 27 Mc. Pioneer Radio Club Reg'd., now boasting a monthly newsletter and expanded activity program, hopes to have doubled its membership by Summer. Members have developed an affiliation with local Civil Protection and often assist law enforcement authorities in the Metropolitan Montreal area, although they have yet to gain official recognition. Their latest innovation is the distribution among members of current catalogues supplied by Montreal's principal electronic wholesalers. A recent meeting saw the election of Ralph Pellatt, XM-521001, and Allan Bobb, XM-52357, as secretary and treasurer, respectively. They welcome any inquiries, comments or suggestions from U.S. CB'ers and ask that these be addressed to: Allan Cytrynbaum, President, Quebec 27 Mc. Pioneer Radio Club, 22 Ellerdale Road, Montreal 29, P. Q.

The Chateauguy General Radio Club, Chateauguy, P. Q. is aimed more at the suburbs of Montreal, and to date has a membership of approx. 18.

It is not necessary to have a "club channel" as there are at least two member stations monitoring Channel 20. The main theme is that most member stations monitor Channel



9 and any contacts for other stations are automatically changed to Channel 20.

Regarding Police and Fire organization etc., they have not approached either groups as they feel that this club is mainly for personal relationships between member stations.

However, if an emergency does occur, they will offer their utmost services. They have drawn up a list of general rules and operating procedures that they will try to follow as close as possible between member stations and they feel that if they are carried out properly, they should have an efficient "network" within the suburbs. President is Moe Edwards, XM-52255.

Remember, we like to hear your GRS/CB news. So kindly write and let us know what is going on in your area.



PART 15 KORNER

by DEAN DETTON, NORTHERN 17

74 S9 MAGAZINE
300 WEST 43 ST.
NEW YORK 36, N. Y.

Jerome Whalen, CENTRAL 688, R.F.D., Bonfield, Ill. asks about Part 15 radioteletype (otherwise known as "Ratty," or just plain "Rat"). As a matter of fact, Ratty is not only allowed on Part 15, there is just such a circuit currently in operation in the New York metropolitan area. The units are operated by Russ Spera, NORTHERN 1022, using the *Craftsmen* transmitter described in S9's *On The Counters* column recently. Russ is on channels B and H and reports good coverage.

Bernard Marker, CENTRAL 491, asks if it is legal for a Part 15 station to communicate with a Part 19 station if the Part 19 station originates the contact. The an-

swer is, of course, that Part 15 stations may communicate only with other Part 16 stations and under no circumstances are they allowed to communicate with Part 19 stations. The only time a 100 mw. unit may communicate with a Part 19 station is if the 100 mw. station is operating under authority of Part 19, and therefore abiding by the stricter Part 19 regulations as to length of transmissions, substantive communications, etc., etc. However, it should also be kept in mind that much of the equipment which may be operated under Part 15 will not meet the technical specifications to be operated under Part 19.

Don Lowe, KEA2152, Little Rock, Ark.,

APPLICATION FOR FREE PART 15 STATION IDENTIFIER CERTIFICATE

To register your Part 15 "unlicensed" CB station with S9 and receive your special station identifier certificate, do the following:

- A. Fill in the application below, or facsimile if you don't want to cut your copy of S9.
- B. Enclose your completed application form together with a self-addressed stamped (5¢) envelope, in another envelope addressed as follows:

Part 15 Department
S9 Magazine
300 West 43rd Street
New York 36, N. Y.

- C. Please do not request special identifying words for your station as all identifiers are issued in alphabetical rotation for ease of recording on our records.

APPLICATION FOR PART 15 IDENTIFIER

Name: _____ CB Call: _____

Address: _____

City: _____ Zone: _____ State: _____

Part 15 Channel: _____ Type of unit: _____

No. of units: _____ Date: _____

Signature: _____

wanted to know if any hand held unit could be termed a Part 15 station. This is a good question because the answer, surprisingly enough is "no." Only hand held units which run 100 mw., or less, input are eligible to be operated under Part 15. A number of hand held units run more than this power and would have to be operated under Part 19 at all times.

Still, letters are pouring in asking where crystals can be obtained for Part 15 operation on Part 15 channels. As mentioned previously, the S9 Part 15 channels coincide with Class C radio control channels and crystals for operation on these channels may be obtained from most of these companies. I suggest that when ordering them you specify the frequency in megacycles rather than the channel letter designation—some of the order clerks at the companies may not yet be familiar with it and would bounce your order.

Ralph Taylor of Louisville, Ky., has a worthy suggestion for Part 15'ers. He says that since most Part 15 transceivers are superregen and are therefore rather broad in receiver tuning, it isn't always easy to determine to which channel you are tuned. His suggestion is that Part 15 stations always announce their channel number when completing a contact so other stations which may be monitoring will know if it is OK to go ahead and use the channel. Very nice idea, Ralph.

Ralph also sent in another idea regarding the assigning of 50 different identifier prefixes for the Part 15 stations in each of the 50 states. Ideas similar to Ralph's were considered prior to our acceptance of the system now in use and it was found that they would bring about far too much clerical work to make such a system possible. As it is right now, we've got a girl working full time on the swamp of Part 15 applications, issuing identifiers and keeping the files. In addition, issuing 50 separate identifiers would, experience has shown, step a bit too closely upon the heels of the FCC's exclusive authority to issue callsigns because, by nature, some of the 50 would have to coincide with current FCC callsign assignments.

Anybody want to send in their Part 15 QSL card? We'll be happy to publish all the jazzy looking ones.



powerful and portable



POWERFUL—5-watts, 5-channel crystal-controlled channels, 100% all-transistor; the Cadre series of transceivers can be used in any vehicle, boat or office. They deliver sharp, clear reception over the greatest transmission range possible in the 27 mc citizens band. Five fixed crystal-controlled channels spell accurate, fast communication contact. Sensitive dual superheterodyne circuit responds to weakest signals. Tuned ceramic filters increase selectivity. Reception is clear, free of noise—automatic noise limiter defeats ignition noise; adjustable squelch eliminates annoying background signals. Extended range AGC provides uniform audio output. Solid state circuitry throughout means no heat problems, no tubes to burn out, ability to withstand vibration and shock, negligible current drain, compact size.

Four Cadre 5 watt, 5-channel models — one is best for you.

CADRE 515—AC/DC unit for use anywhere. \$194.50

CADRE 510—AC/DC unit. 23 channel manual tuning. \$209.95

NEW! CADRE 520—DC only with DC power cord and mounting kit—ideal for mobile and portable use—operates from 12 volt auto battery or special battery pack. \$187.50

NEW! CADRE 525—for complete field portability. Standard AC cord permits recharging of two built-in nickel-cadmium batteries, telescoping antenna, carrying handle. \$269.95

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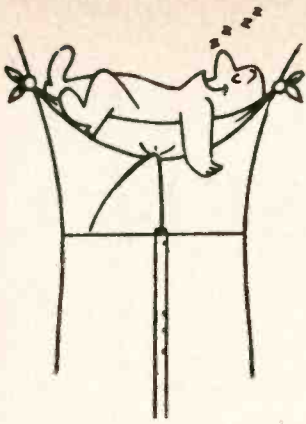
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ANTENNAS

by **ED NOLL, KCC2618**
 BOX 23
 CHALFONT, PA.

In recent months we have covered the characteristics, dimensioning, and construction of CB beam antennas. Beam antennas can be adapted to a variety of CB situations. Even the element lengths and spacings can be altered to meet specific needs.

COMMERCIAL BEAM ADAPTATIONS



Fig. 1. Lafayette three element beam, assembled.

An assembled Lafayette three-element beam is shown in Fig. 1. The crossarm is eight feet long and is made of two inch od aluminum tubing. Two insulators and a cup-like mounting assembly hold the driven element to, but insulated from, the boom. This type of driven-element assembly permits some versatility in the choice of antenna feed systems and matching. Plastic brackets and associated bolts and backup plates are used to hold the director and reflector on the boom. These parasitic elements are not insulated from the boom.

Driven and parasitic elements are telescoped. In adjusting each of the elements to proper length, $\frac{3}{4}$ inch tubing is telescoped into $\frac{7}{8}$ inch tubing. When the elements have been adjusted to correct length

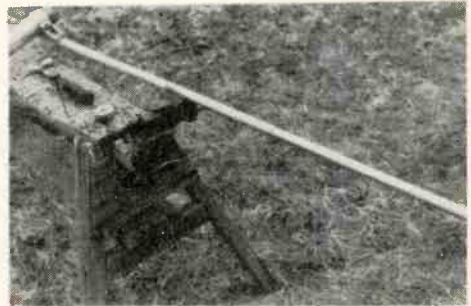


Fig. 2. Drilling holes for thru-bolts.

an aluminum tubing-clamp can be used to hold the two segments firmly together. If you prefer, a more versatile arrangement that will permit you to adjust and readjust the telescoping elements can be used. Convenient holes can be drilled through the pieces of tubing (Fig. 2) and thru-bolts and nuts used. The clamping arrangement has a tendency to deform the tubing and, therefore, telescoping adjustments become difficult. However, they may be used if the elements are to be held firmly in one position and then not changed. When using thru-bolts however, it is possible to change the antenna dimensions when desired and then come back to an original setting. Electro-seal grease should be applied freely to the telescoping portions to provide good electrical conductivity, reduce oxidation, and permit ease of telescoping.

Recommended dimensions for all-band operation are given in the drawing of Fig. 3. Dimensions are given in terms of wavelength as well. Thus you will be able to telescope the antenna elements to specific dimensions as per the data given in last month's column. The three-element beam

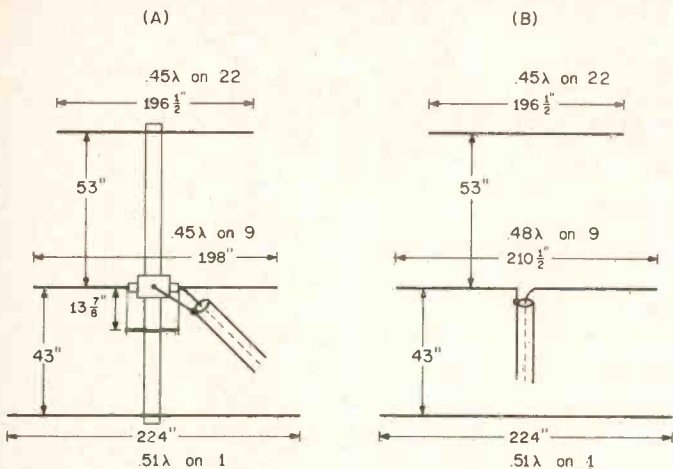


Fig. 3. Three element beam dimensions.

can be used with (A) or without (B) a matching section. Often a suitable match can be obtained without the use of a matching section. When the antenna is mounted for vertical polarization, matching is often less critical because the height above ground is a lesser factor than for horizontal polarization.

BETA MATCH

A beta matching arrangement is used

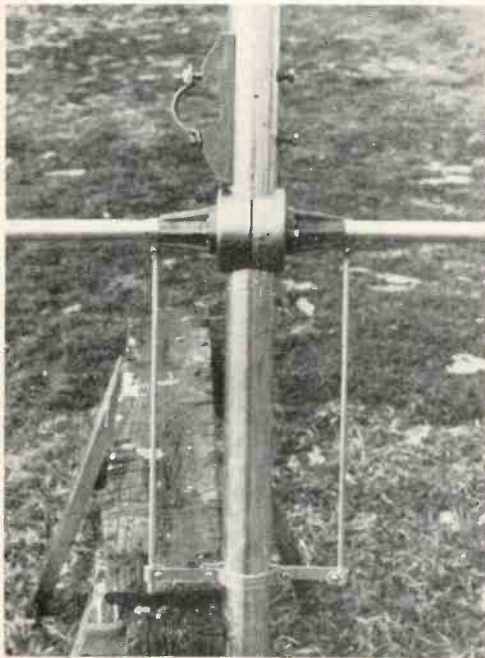


Fig. 4. Beta matching section.

with the Lafayette beam as shown in Figs. 3 and 4. The inner conductor of the coaxial transmission line is connected to one side of the driven element at the point where it connects to the beta section. The outer braid of the coaxial cable connects to the electrical center of the driven element by attaching it to the metal cup that holds the driven element fast to the boom. The boom itself makes electrical connection with the matching arrangement at the opposite end of the beta section.

Notice from Fig. 3 that for certain types of matching sections the overall length of the driven element must be shortened to maintain proper resonance as compared to the length when a direct connection is made to the two dipole sections. Thus the driven element length must be made somewhat shorter than calculated length when using T, gamma, or delta matching arrangements.

BI-DIRECTIONAL BEAM OPERATION

A three-element antenna of this type can be made bi-directional by reducing reflector length. In so doing, the element can be made short enough to function as a director. Thus the antenna will have a sharpened figure-8 pattern as shown in Fig. 5. Of course, you cannot obtain this bi-directional performance without sacrificing gain. In other words, instead of having an antenna with a gain that corresponds to that of a driven element, reflector, and director, the gain will be that of a driven element and director combination. However, signals will be sent out in opposite directions. In some

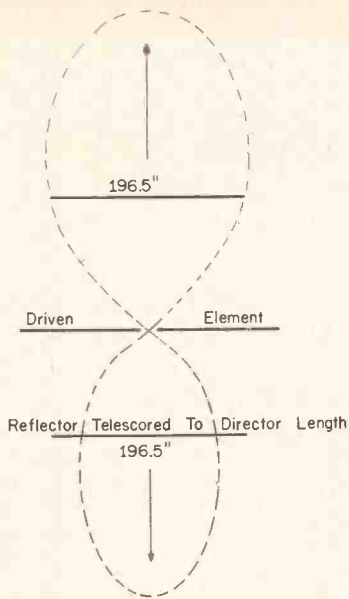


Fig. 5. Bi-directional operation of beam.

the telescoping sections to the initial sets of holes. Thus you need not destroy the three-element capability of the antenna if you wish to check out performance for bi-directional use.

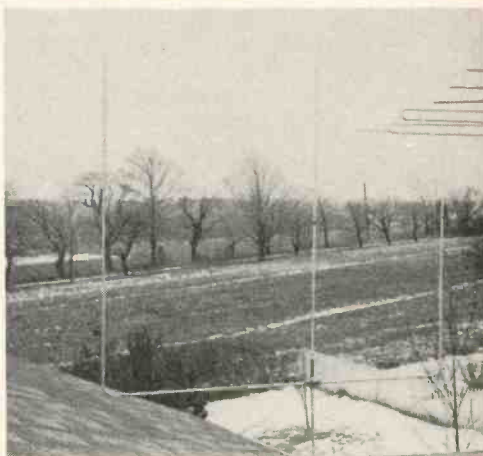


Fig. 6. Vertical beam with coaxial driven element.

CB operations, as covered in last month's column, such a pattern can be advantageous.

In a practical circumstance, it is not actually necessary to cut the reflector element. Rather it can be made to telescope further into the larger diameter element section. Another set of holes can be drilled into the reflector element. When the ends are telescoped this distance, the combination will operate as a director. If you wish to change the antenna over to uni-directional operation again it is only necessary to withdraw

COAXIAL VERTICAL BEAM

An example of a small vertical beam that uses a coaxial vertical element is shown in Figs. 6 and 7. This type of antenna occupies a smaller area and has good gain in its forward direction. It also has some pick-up at other angles, not being as sharp and of as high a peak gain as a full-dimension three-element beam.

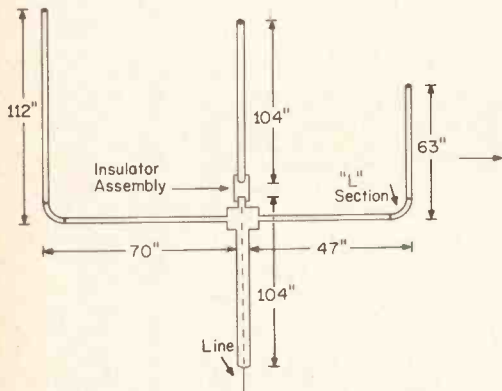
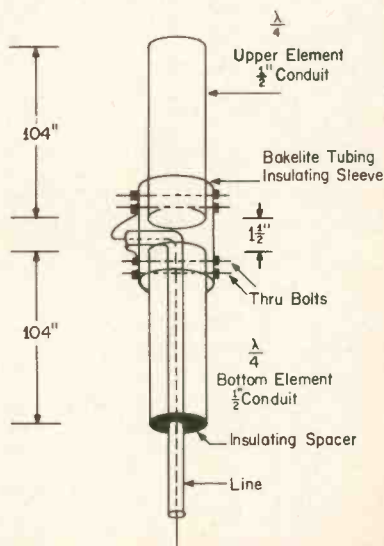


Fig. 7. Coaxial beam dimensions. On the right, we see detail of the assembly.



Watch for next month's big issue

This type of antenna can often be fixed-mounted and oriented in the specific direction from which there is to be maximum signal performance. At the same time it can be used with reasonably good results in other directions for shorter-distance communications.

The bottom segment of the coaxial driven element must be insulated from the antenna mast, or, if used, the antenna rotator. However it is quite permissible to attach some type of mounting bracket to this bottom section for holding the antenna against a wall or other non-conducting building material.

In general this style of antenna has the same general characteristics as a coaxial vertical with the exception that some additional radiated power and pick-up sensitivity are available in one direction.

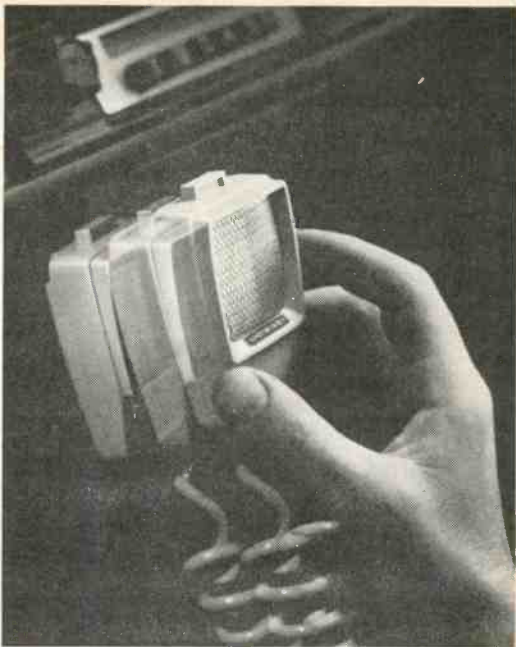
If a higher gain and a more directional pattern is desired the director and reflector can be extended on each side of the cross-arm to obtain a full vertically-polarized three element beam.

The particular job shown in Fig. 6 is constructed of aluminum and steel electrical conduit. Reflector, director and top section of the antenna driven element were made of 1/2-inch aluminum conduit. The crossarm was 1/2-inch steel conduit and the bottom segment of the coaxial driven element, 3/4-inch steel. The various sections were joined together using aluminum L's and appropriate couplings. The center junction box was modified by cutting an additional hole for the 3/4-inch conduit. Transmission line was fed up through the center of the bottom section to the bakelite tubing which served as the insulator for the coaxial vertical construction. Inner conductor is again connected to the top part of the coaxial vertical; outer braid, to the bottom section.

INQUIRIES

John Kay of the Kay Motel in Searchlight, Nev. has written about a problem common in mountain areas. His range of transmission is pretty well hemmed-in by surrounding hills and mountains. However, he does have a transmission line running 550 feet up to the top of one of the ridges; originally this was a television antenna installation. Can the same line be used for CB transmission?

Continued on page 60



Kerchunk! new sound of safety

Kerchunk is the sound made by the heavy duty magnet on the back of a Sonotone CB Ceramike as it mounts firmly, securely to your car's dashboard.

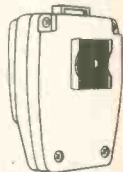
Kerchunk says: "Message to base completed easily, safely." *Kerchunk* means no more groping when you return your mike to its dashboard mounting bracket—no need to take your eyes off the road.

Responsible for this boon to those who rely on CB or mobile communication, from car or truck, is an important Sonotone development called "Magnet Mount." A heavy duty magnet on the back of Sonotone Ceramike mobile communications Models "CM-30M" and "CM-31M" lets you place the mike almost anywhere on or around the dashboard. Further, Magnet Mount eliminates the need to drill holes for dashboard mounting brackets.

Sonotone Ceramikes have far more to recommend them than just this amazing mounting device. The quality-engineered mobile communications models, "CM-30M" and "CM-31M" provide loud and clear reception. Inherently immune to extremes of temperature and humidity, they will operate even if immersed in water. Neoprene encased transducers render them shock and impact-proof.

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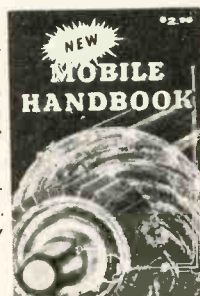
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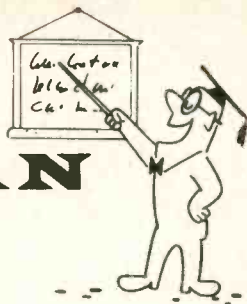
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CB ANSWERMEN

by LEN BUCKWALTER, KBA4480



Editor's Note: Readers are invited to ask the CB ANSWERMEN any questions which they have regarding the CB service. Address your questions to Len Buckwalter, KBA4480, Wilridge Road, Georgetown, Conn.

FROZEN JUICE

A strange thing happened to me. While using my battery operated transistor rig, I noticed the volume getting weaker and weaker. At the time, the temperature was near zero degrees. Could temperature be the reason? Also, I would like to know if cold weather will do any harm to the radio.

B. S., Armonk, N. Y.

Battery output takes a nosedive with the thermometer. If you were using regular dry cells, their capacity would drop down about 80 percent when you went from a warm room to zero outside. The effect is not usually harmful to the battery; output will rise when it warms up again.

If you were using mercury cells, they would behave even less efficiently at such low temperature. The reason in both cases is that chemical activity slows when the temperature goes down. You need not be concerned with the frigid effects on other components in the rig. In any reasonably well designed circuit, performance may be expected to remain essentially constant during a swing from 0°F to 125°F.

This all leads up to an interesting trick you can pull to save some pennies. Even when batteries are not being used, they wear out anyway—and the higher the temperature, the faster it happens. In one test run by engineers, a dry cell kept at low temperature retained more capacity after five years, than cells stored at higher tempera-

tures after just one year. The model airplane radio-control boys, who usually use their batteries only on weekends, learned this long ago; and many keep dry cells in the refrigerator when not in service. You might want to try it if there are long periods when the rig is not being used. Real penny-pinchers can place them in a freezer! Frozen batteries that are carefully wrapped to exclude moisture (which splits the case) have extremely long "shelf" life.

PILOT LAMP

When I'm in the car I find it hard to change channels since the rig has no panel light. How can I hook one to the 12-volt source so it won't blow when the set is operating on 115-volt house current?

M. W., Flushing, N. Y.

Connecting a pilot lamp into an existing rig is no simple matter; that is, a lamp that works for both house and car power. Trouble is that the pickup point for power doesn't remain at the same voltage in base and mobile operations. There is, however, a solution to your major problem if you are willing to give up use of the lamp when the rig is operated on house current . . . no great sacrifice since room light is usually ample enough.

The following installation will work with any rig, 6- or 12-volt mobile. (See sketch.) Get an E. F. Johnson Panel Light No. 147-329 (cost is 89¢).

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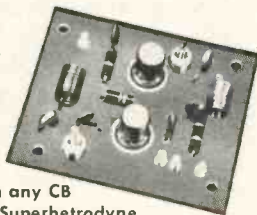
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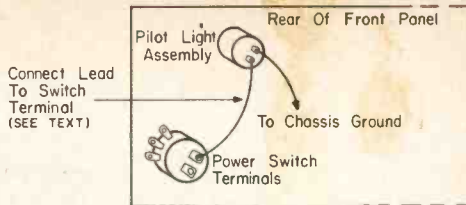
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that mounts into a 1/2-inch hole made in the front panel of the rig. It has a convenient hood that may be rotated to throw light onto any section of the panel. After the assembly is in place, insert either of these lamps into the socket; for 6-volt cars use a No. 47 bulb, for 12-volt cars insert a No. 53 bulb. Both lamps have the same bayonet base and differ only in operating voltage.

Attach two wires to the terminal lugs on the rear of the lamp assembly, as shown, and connect either of these to the rig's chassis ground. The other lead is soldered to a terminal on the rig's on-off switch. You can find the correct one by hooking the rig to its 6- or 12-volt power source. Turn the switch off. Now take the free lead from the pilot lamp and touch it to either terminal. The light should light on one, and remain off on the other. Solder the lead to the switch terminal that does not light the bulb. To check for proper operation: the lamp should now go on and off with the switch.

There is one precaution to observe. You must remove the bulb whenever the rig is brought into the house for 115-volt operation (easily done from the front panel). Each time you forget, it costs a dime—the bulb will pop like a fuse.

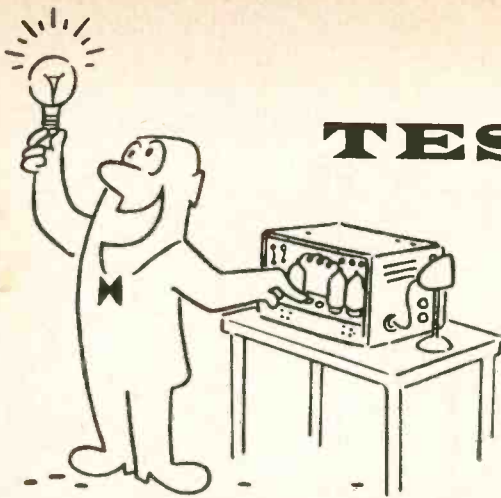
TV BOOSTER

Is it possible to convert a TV booster for use with a CB set?

J. A., Caledonia, Ohio

Possible, but the only major part you would salvage from the booster would be its tube or transistor. These units are designed to amplify frequencies between 54 and 215 MC. Thus, you'd have to wind new coils to shift coverage to 27 MC. Other modifications would include a change from 300 to 52 ohms, integrating the unit into the changeover relay of the CB rig and solving some power supply problems. So, the project is not especially practical since there are no very expensive or special components in the booster that would make it worthwhile to rebuild for CB use.

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TEST GEAR

by **HERB FRIEDMAN, 2W6045**

2271 KNAPP STREET
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HOW'S YOUR MODULATION?

Tired of getting conflicting reports on your modulation? Tired of getting ten reports (all different) on your new microphone? (Those of you who aren't can leave now.) Well then, borrow a tip from the broadcast stations and meter your modulation. Sure it's nice to own a scope, but we at S9 realize that for many a scope is outside the budget, and for others the necessary technical changes are beyond them. So, we've come up with a little modulation meter which can be installed by anyone (even if all the building you've ever done is to solder two wires together).

Actually, all we've done is borrow a Volume Meter from the Hi-Fi boys. The unit is the Lafayette Radio Audio Output VU Level Meter (TM-20), which consists of a VU meter, attenuator, and DC blocking capacitor. (For those of you who like to build-your-own a similar schematic is shown in Fig. 1.)

Connection and adjustment is simple. Connect the meter's leads across the secondary of your rig's modulation transformer. Make certain the connections are made as shown in Fig. 2, on the transformer side of the TR switch. If the meter is connected across the speaker it will be automatically disconnected when you transmit.

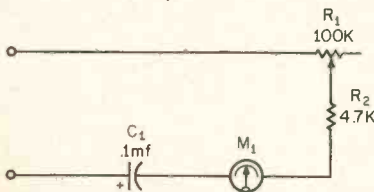
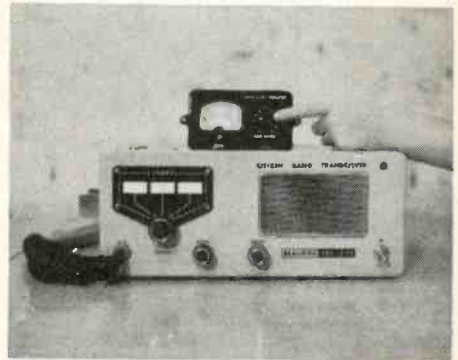


Fig. 1



If your rig is one of those electronically switched jobs which has DC on the secondary in the transmit mode don't worry, the blocking capacitor in the meter will prevent any problems.

If you have a high quality modulation meter (scope) available, like at the club's shop, adjust R1 (the Range Control) so the VU meter reads 100% modulation when the scope reads 100%. If you don't have a calibrated modulation meter available you can set the VU meter fairly accurately if you *know* your rig's in good shape.

Modulating in the normal manner, adjust R1 for a 100% reading on speech peaks. Now, if you change to a higher output mike the increase will be shown on the VU meter. Similarly, if the new mike has less output the meter will read under 100% modulation.

Of course, the VU meter makes speech clipper or compressor adjustments a snap. First adjust the meter to 100% with the *normal* microphone. After the clipper/compressor is installed adjust the new controls

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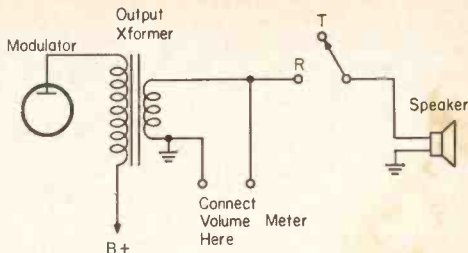


Fig. 2

so the meter reads 100% after the clipping or compression level has been set. (All too often the use of a clipper/compressor results in severe overmodulation—with the VU meter you will avoid this.)

As a final note, the VU meter will be in the receive circuit—you will be able to help the received station with his microphone or audio tests.



PAGE 35!



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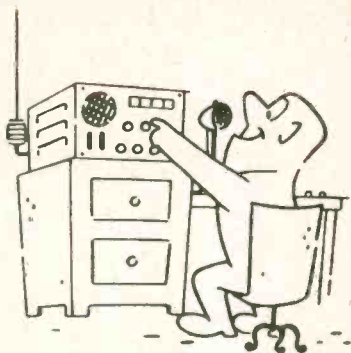
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CB CASEBOOK

by **LEE AURICK, 2W2870**

MT. PLEASANT RD. RFD 1
COLUMBIA, PA.

WOULD YOU LIKE TO READ ABOUT YOUR COMMERCIAL USE OF CB IN S9? IF SO, WRITE TO US.



Lancaster County Deputy Sheriffs Bill Brinkman and Herb Valentine in a rare moment "in the office."

One of the best known CB calls in southeastern Pennsylvania belongs to Harry Meyers, 3Q2385, the Sheriff of Lancaster County.

Sheriff Meyers was not able to be with your S9 reporter the day we visited, but he did make thoughtful arrangements for us to be received by Deputy Sheriff Herb Valentine. Deputy Sheriff Bill Brinkman was also in the office and contributed greatly to the discussion of the use of CB radio by the Sheriff's Department.

For nearly two years, CB radio has played an important daily part in the performance of the duties of this organization.

Your reporter had to begin by asking the nature of the duties of the Sheriff's Department, and immediately learned some interesting things.

Unlike many other states, a sheriff in Pennsylvania is not a law enforcement officer. Rather, he is the official arm of the civil courts, and in this capacity he handles the many necessary legal papers including notices, divorce actions, non-support citations, and judgments that are part of a county judicial system.

In some cases, the department is called upon to act jointly with the FBI, municipal authorities, and rural constables.

It took very little coaxing to get these gentlemen to describe the complicated nature of their duties, the mountains of legal forms, and to provide a running commentary on the great amount of footwork involved in performing their daily business. It became increasingly apparent that the principal duties of these men kept them far from a desk and largely in their cars and on foot.

"Our use of CB radio all started about two years ago when Bill here, and I, asked the County Commissioners for permission to install two CB units," Herb told your reporter.

"They weren't very warm about the subject," Herb continued, "but they agreed that if we could try out the idea without spending too much money, they would have no objection."

"The next thing I knew," Bill said, "Herb and I were standing on the peak of the County Court House roof, some 75-feet above the ground. I get a slight chill whenever I think back to that time and recall trying to pass the steel bands from the chimney mounting bracket around that huge chimney. We came pretty close to not even getting a chance to prove out CB radio, let alone getting back downstairs in one piece. It was a struggle, but eventually we had our test antenna safely moored. The first unit here in the office Herb and I bought and paid for, we were that anxious to give it a try, and that convinced that it would work for us."

Taking turns at working the base station, between similar units installed in each of their cars, Herb and Bill impressed both themselves and Sheriff Meyers with the increased efficiency with which they were able to work, and the extra ground they were able

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to cover.

"It wasn't long before the Sheriff decided that he would like to have a unit in his car, and at that point, our system came in to full operational use," Herb said. "Now, Chief Deputy Marvin Foltz and Deputy Harry Young have units in their cars. The net result has been that, in effect, we have multiplied our effectiveness many times. It has been like adding several more men to our staff."

"I don't believe the County Commissioners would even let us try to do our job now without CB radio," Herb told your reporter. "Not after they have seen the results we turn in now. Before we had our radios it was necessary for us to call in at least every hour to check on things. This was often mighty inconvenient, and at best it was never quite often enough."

At this point Bill Brinkman walked back into the office with three "walkie-talkie" units.

"These units are small enough so that they can be concealed under a top coat or a jacket," Bill mentioned, as he handed one of the units to your reporter. "They are ideal for our use as they attract little attention, and we use them to great advantage when we are working a 'stake-out,' and require radio contact at close quarters. They have helped us 'get our man' on any number of occasions, often as he's dashing out the back door to avoid being served with a warrant, as another of our men approaches the front door. Did I say they were useful at close quarters? In at least one instance I have worked a distance of five miles."

"Sure, CB radio helps us," Herb said, as he swung around in his chair to face your reporter. "It lets us do the biggest days work we could imagine, and somehow I think none of us feel quite as tired at the end of the day as we would if we didn't have CB in this office. I know for certain that we would never get the many things done that we do if it weren't for those little boxes. The most important thing though, to my mind, is the fact that through the use of CB there are a lot fewer irresponsible types running around this county than there would be if we didn't have them. We look at CB radio as an efficient tool of the legal system established by the citizens of this county, and used by us in their behalf. For us, the words *Citizens Band* has a meaning that goes far beyond the definition in the regulations."



CLUB NOTES

**INDIVIDUALS AND CLUB MEMBERS!!
SEND US ITEMS FOR THIS COLUMN!**

TO JOHN KREJC, 2W4586

40 LANZA AVE.
GARFIELD, N. J.

WANT TO MAKE MONEY? S9 has a nationwide staff of AREA PUBLIC RELATIONS EDITORS who act as our representatives in the field. We are always looking to expand this force with good workers. Our A.P.R.E.'s can earn some nice money too, and many are already supplementing their regular incomes substantially by representing us. We're especially interested in persons to act in this capacity in the following call areas: 2, 6, 9, 14, 16, 17, 18, 19, 22, and 23, although ambitious S9'ers in all other areas will also be most welcome. Drop us a note and tell us about yourself.



Recently formed "Delaware Valley Emergency Radio Team" covers two counties in Southern New Jersey (Camden-Gloucester) with 44 mobile and base units. Meetings are held the first Sunday of the month in National Park, N. J. President of the group is Charles White, KCC0595.

January 1, 1963 marked the 3rd Anniversary of the CRCRC of Cedar Rapids. This active group has come a long way since its inception in Jan., 1962, with associated activities in the CAP and with local law enforcement agencies assisting in parades and helping in charitable drives. President, Bert Collins, 18Q0570. This group of active CB'ers plan to put more effort into the club and expand its activities in the area.

According to Dr. William Ward, 18W8555, prexy of the Hawkeye CB club of Iowa City, Iowa, plans to initiate the REACT program into their club as soon as plans are completed. This group has given a lot of time to promote good will among CB operators throughout the State of Iowa, as well as in their community.

The January meeting of the Sullivan Trail CB club of Horseheads, N. Y., brought together the new officers of the group. Items which were discussed included, appointment of committees, outlining of programs for the coming year, membership cards and copies of the club booklet. Glenn Cooper, 20Q1021 is prexy. The clubs calling and emergency channel is 11.

The good work of honest CB'ers really came into light when it was discovered that 2 prisoners from the Utah State Prison were operating illegal from the prison. High ranking officials with the help of local CB'ers helped in the raid to shake down and find the unit. The unit was operating in the area since before Christmas. The unit was found in a farm building which is part of the prison. Thanks to cooperation from all, a bad operation was nipped in the bud just in time and perhaps prevented some illegal movement in and out of the Utah State Prison. Thanks, Spencer!

President, Hal Halbrouck, 11W3330, of the Citizens Radio Associates of the 11 area comes the news that he would like to thank the members for their support in the past and for the continued success of the club. The club recently held an auction at the Stoner Park Clubhouse, where they also hold their meetings on the 3rd Tuesday of each month.

The CB'ers of Brunswick, Georgia, have recently formed a CB club to work in close coordination with CD under the RACES program. President is Jesse F. Pridgen Jr., KDB8264. Anyone interested in the club write: 811 Mansfield St., Georgia.

Roy L. Greene, KDB7586, informs us also of a new club in his area which will include the R.C. Rescue, Fire Dept. and many other voluntary groups. The group is located in the Northern section of South Carolina. Roy comes from Chesnee, S. C.

The Tri-County Five Watters club Inc., was formed by 16 interested CB'ers in 1960. The club located in Woodstock, Ill., has the purpose to create fellowship, promote interest in CB among its members, their families, local government, law enforcement agencies, the general public and to improve operating technique and practices in the Citizens Band Radio in accordance with the FCC rules and regulations. The club was incorporated in the State of Illinois as a non-profit organization on July, 1961. Presently the club membership is anticipating Red Cross First Aid training for community benefit. President of the club is Lou Belshaw.

President of the Illinois Valley Citizen Banders is George Hallar, 18QA1482. Their club paper is the "Citizen Banders Journal." The object of the club is to assist the membership in the understanding of the rules as set forth in Part 19 and to keep you informed of their changes.

In December of 1960 four men with CB radios formed an organization known as Radio Rescue Service. To these men the radio was a means of communications in their work, and it also became apparent to them that if these radios were banded together with a common cause they could become very helpful in the community in which they lived. R.R.S. is a non-profit organization with an ever increasing membership at the present time, there are thirty members in the Hartford, Conn., area with a chapter in the Colchester area, numbering 18. Application for charter membership is now under consideration from Mass., R. I., N. Y., and a far south as Florida. Its best purpose is to serve the surrounded community in which it is located. The organization is licensed by the FCC under the call letters of KBA6262. All members are thoroughly trained in advanced First Aid, Fire communications, Police duties, and all new

emergency techniques, all valuable information that may save a life in time of need.

Lots of luck to the Queen City 5 Watters CB club on their first edition of their club paper called "5 Watts." The club is trying to keep channel 9 clear for emergency traffic.

Just a minute—Another club paper called "The Carrier." This one belongs to the Five Watt Wonders of Metairie, Louisiana. Their Christmas-Installation Dance really went off with a blast. We hear that not a crumb was left. President of the group is John Bracamontes; Vice President, George Walsten; Sect'y., Joyce Sangtinette; Treas., Lovie Campbell.

Editor, of still another fine club paper is Ken Pettit of "The Signal." The paper is published monthly by the Crystal Wizards from Muskegon, Michigan.

R. M. Forster, KEJ5806, informs us that The Southern California 11 Meter League has been growing and it became necessary to increase the number of executive committeemen. The constitution has been revised to allow for one additional representative on this executive committee for each CB club that affiliates themselves with the league. CB'ers in the South-Eastern part of Los Angeles County have been called upon several times during the past year, to supply blood for fellow CB'ers or their families. As a result the 11 Meter League decided to set up a Blood Bank. The Red Cross will work with the League in the area to help accept with donations. The 11 Meter League has been asked by the City Council of Bell Gardens to aid in the handling of traffic during their annual Easter Parade.

CB'ers in the high desert area between Yucca Valley and Landers, Calif., are kept constantly busy in manning the Search and Rescue Posse. They have taken part in all types of searches, from lost children, stranded motorists to downed airplanes. They have proved over and over again that the Citizens Radio Service is an asset and necessity, not a hobby, as it was so nicely defined in one of our weekly magazines. When is some of the good things going to be printed. I guess the truth the people never read.

The CB Minutemen of Washington, Inc., have been in existence for some 19 months and boast a membership of 185. This newly incorporated club has been active in REACT and also is engaged at present with the CD, working out procedures and rules to get a CB-CD unit in operation in the Seattle area. The official publication of the club is the "MINUTEMEN FLASH." Any club wishing to exchange papers please write—CB Minutemen, % President, E. M. Tolman, 9042 208 N. E., Redmond, Washington.

Fairfax-Prince William CB Club—newly organized club which is located just outside of Washington, D. C., on the Virginia side of the Potomac River. Present membership is 17, but the committee is working hard to improve this. The club was created not as a social club, but as a SERIOUSLY MINDED Citizens Band Radio Club. The main items of club activity has been the adoption of the constitution and by-laws, incorporating, creation of a club handbook, and to promote friendship among CB'ers. The club meets the first Monday of every month, usually at a home of some member. Club monitoring channel is 15. President of the club is R. E. Martin.

Looking to hear more from the Kankakee Valley Hi-Bander Association. How about it Jerome Whalen, 18W3932.

"A whooping big blast off" was launched from Lloyds Center in Portland, Oregon with Jane Mansfield, Jim Bakus, (Mr. Magoo) Will Huthins, (Sugarfoot) Bruce Yarnell, (Outlaw) and Ilene Wood, (Broadway Star) started a Telerama in which "The Oregon Grapevine Inc." CB club under the able command of their Special Events Chairman and their monitor relayed pledge calls to members stationed at strategic points throughout the city and outlying districts who in turn collected the pledges and rushed delivery to "The March of Dimes" headquarters. Needless to say that it was a very successful launching.

S. W. Burdge, KCC0647, Publicity Chairman of the Monmouth County Emergency Aid Network, reports that all CB'ers are welcome to attend club meetings held in the Monmouth County CD Radio Room (How's that for co-existence between CD and CB) in Freehold, N. J., the second Tuesday of each month at 8:00 P.M. The club was formed last September and numbers 24 members. There are 3 members who monitor channel 11 around the clock—John Krueger, KBG4667; M. Paterson, 2W5673; and John Schwartz, 2Q6908. Mail should be sent to the club at MCEAN, P.O. Box 712, Freehold, N. J. Thanks again to Bobbi Steele, KCC-0625.

Received a letter from Robert Zanella of Sherborn, Mass., in which he had praise for one Phyllis Hansen, 1Q7173 of Westboro, Mass. who answered his call for help after he was unable to get the operator on the land line. His call was answered by Phil and within minutes the police were there with oxygen, and rushed his son, Bobby to the hospital. Bobby is home now after two days in the oxygen tent. Thanks again must be extended to Phyllis Hansen, the Sherborn Police Dept., and his CB rig.

The Alaska 49'ers CB Association on January 27th provided traffic control and acting safety officials. The group also will support the March of Dimes, assisting in the Mothers March to be held on the 1st of Feb. The club will have several mobile units at various collection points throughout the city and as the mothers bring in their collections the mobile unit in that area will take the collection to the central collection point. The club will be assisting in the World Championship Dog Races to be held shortly and prior to the time they will be assisting the Alaska Sled Dog and Racing Association during the training races. Most of their assistance will be in the form of safety and traffic control which seems to be their specialty. Ray Williams, KJB0035.

A group of independent CB'ers that monitor channel 17 meet this past Feb. The group meets twice a month with very attractive door prizes given away at each meeting. About 150 CB'ers attended the last meeting. The El Camino Real CB held their coffee break at the Colonial Pancake House in Duarte, California. The club has just been reactivated in the last four months and meet the last Thursday of each month. Present president of the club is Charles Snyder, 11Q4137.

The Bristol County CB Radio Club of R. I. is attending classes on 3rd Class FCC Radio course—Instructor—Seth B. Paul, 1W1717. Seven new members have joined the club. Bristols REACT-CD club will attend the classes. Thanks to Ethel Miller, 1W6519 U-2 who formed the Dickerman Fund. Glad to see it was used the right way. A new paper coming from the one area, which is due soon called—CALL ONE CB MONTHLY, 19 Congress Ave., Providence, R. I.

Looking forward to see the new president of the Lycoming CB Radio Club, Inc., P.O. Box 247, Montoursville, Pa. Editors of the clubs paper are Leslie Gruver, 3W1027 and Bob Ott, 20W5796.

Club personality of the month—Bill (Stoney) Adley, KCC1403, of the Band-Spread, official monthly publication of the TRI-COUNTY Citizens Radio Association, Southampton, Pa. Stoney is a good natured friendly fellow who will do his best to lend a helping hand where needed. The month of January the club held their nominations and will elect in Feb. How about the dues! Club paper circulation is approximately 400. WOW!

The Citizens Radio League over the three years of operation of the organization has had many great moments. The club was one of the first Citizens Radio groups in the U.S. and at this time is still rated as one of the "Top 15" CB clubs in the nation. Their newsletter, "CB NEWS & VIEWS" has been considered by many in the Citizens Band Industry to be the finest club publication in CB. News items and press releases arrive here from Thomas J. Vastine, 341 Frederick

Ave., Bellwood, Illinois. Tom is Co-Chairman of the newsletter. Thanks, Tom.

Burnside, Kentucky is the home of a new CB club called, Lakeside Citizens Band Radio Club which held their elections recently. President of the club is Buddy Brummett; Vice president, Charles Lewis; Treas., Fred Hardy. The club is presently trying to purchase a club house on Lake Cumberland. Chief Radio Engineer is David Massey.

The Jackson Citizens Band Radio club membership is at the 50 level and still climbing. The club is a member of the State Civil Defense and also work with the law enforcement when needed.

Let's hear some news from your neighbor the Jackson Emergency Communications club with Claud Easley, KEA1418, president.

The Western New York Emergency Net has organized a group in the Rochester, N. Y. area. This group is now 63 members strong. The group has been organized for only a month and has already been of service to the people of Rochester. On January 11, 1963 an 11 year old girl became lost on her way home from school. 30 cars from the Rochester Chapter of the Western N. Y. Emergency Net responded to the call. The FCC gave the unit full acknowledgment in the use of Citizens Band Radio for this search, and resulted in the successful recovery of the girl.

In the Village of Honeoye at the north end of Honeoye Lake, the Honeoye Chamber of Commerce held their second annual Winter Carnival. About 25,000 people were out to see the program. CB'er Dean Hillegeer, 20Q3808, assisted with a I2 unit communication set-up to help keep things moving. Feature of the day was a 11 mile dog sled race, a two hour jaunt around the lake. Hat's off to Lyle C. Adams, 20W8441.

Keystone 11 Meter League has begun a profile of the month. This month, which is their first is GUY CURCHOE, JR., 3Q3167, Vice President. Also Guy helps out as chairman of the membership committee and member of the Board of Directors. Among other things he serves on the Communications Committee.

The group is active in Civil Defense and in any volunteer emergency situations which might occur. Most members are trained in Red Cross aid. Tri County has been very helpful to the polio immunization program. Citizen Band units were set up in all immunization stations with a headquarters at Sterling, Ill. A constant check was kept as to the number who had received the Sabin Oral Vaccine, so that adequate supplies were readily available. Members also transported the doctor in charge, from center to center. Tri County can be complimented on the success of this program.

Well—the first edition of the Band Scanner, club paper of the Five Watt Whips, Lowell, Massachusetts. As Vice President, Joe Bigos, 1Q4939, states, "It has been a long time in the making, but thanks to Fred Norwood Jr., KBA2287 and his committee, the first publication is out." Now let's all pull together and keep it rolling to a bigger and better paper. Guest speaker at their last meeting was Bill Bertholdt, KBA-4290, director of the CB Socialities Emergency Mobile Unit. President of the Five Watt Whips, Carl Porter, 1Q1035.

The Santa Barbara Citizens Band Radio Club, California is on a crash membership drive. Help is needed on the newspaper, committees, club activities and most of all to fatten the club bank. President of the club at this writing is Bob Kuhn, KEJ5608. Paper staff—Jim Carroll, KEJ4433, Herb Hartley, KEJ6466, and Jim Hartley, KEJ2431. Dig those crazy KEJ's.

Good luck to Bill Jenkins, 20Q4775, editor of the SIGNAL, club paper of the Fay-West CB Club. "Old editors never die, they just fade away." Take-care Bill. The Signal will pass into the capable hands of their illustrious advertising manager, James Sterbett, 20W-4298.

The Delaware Valley C-B Association of Wilmington, Del. had as their special guest, (January meeting) Mr.



Elected to head the Tri County Citizens Band Radio Club Inc., Left to Right, David L. Reavley; President, Norma L. Myer; Secretary, Helen M. Franzen, Treasurer, Veron L. Rosenow, Vice President.

Bud Pipe of the Bell Telephone Co., who spoke of TELESTAR and the scientific facts about this satellite. "Base to Mobile" staff, Sue Peterson, 18Q8375 and Jake Wolf, KHA8836, which is the club paper of the Citizens Radio League of Chicago—a division of the Metropolitan CB Radio Association, Inc. Nominations in January, Elections in February—Let's see the results!

The Morgan County Citizens Band Radio Club kicked off its first meeting of 1963 with a fabulous smorgasbord dinner at the famous Kelly's Restaurant on Highway 67N. The dinner included a large variety of meats and vegetables as well as soft drinks and coffee. The Radiogram, club paper of the club recently in the good deeds department—Salute to the Month, Bob Freeman. Bob is active in Mooresville, Civil Defense and has given his share of time and energy into it. When assistance is needed by local or county police, Bob is always ready to help while Mac, (his wife), keeps the coffee pot going. Prez, Charles Hamilton, 18QA0179.

Congratulations to Chilton (KDB0253) Young on being selected MR. COURTESY at the December Memphis Radio Citizens Band Radio Club meeting. The club now boasts a membership of 275. They have formed a Rescue unit for the benefit of their community. The club is three years old and has enjoyed a very fine record. Don't forget your dues are due by MARCH.

The Emergency Communications Organization, East Baton Rouge Sheriffs' Dept. has an active duty roster of 25 men, headed by Sheriff Clemmons, Chief Leach, Sgt. White and Deputy Rushing.

"Transmitting The New Of The CB Rangers" The Transmitter. Meetings are held the 4th Sunday of the month at the YMCA, Butler, Pa., 8 P.M. Channel 9 is their calling channel with channel 15 their emergency channel. Committees—Newspaper, Dick Vernon—Tom Guthrie, Emergency Squad, Tom Fend—Mel Hays, President, Frank Gibson, 20Q3527. In view of the recent proposed amendments by the FCC to the advantages of being united and working together Citizens Band Radio, the club would like to point out to protect the rights of the CB'ers. The best way to be united is to belong and support an active CB club. To the CB'ers in their area, the CB Rangers would like to extend an invitation to make application for membership in their club.

The ALL CAPE COMMUNICATIONS NETWORK of Hyannis, Mass., was formed in February of 1962. The club membership is 28, and they are affiliated with the American Red Cross and have their own office at the Red Cross Bldg. in Hyannis. Recently elected president is Russ Kisseberth, KBA4991.

The Cereal City Citizens Radio club on Sunday, January 20th, assisted the 6th Annual Klondike Derby at Binder Park, sponsored by the Nottawa Trails Council Boy Scouts of America. Their role in the event was to provide communications between fourteen checkpoints and base headquarters. Somehow, things were

really "snafued" and many of their operators were called upon for other services: traffic control, first aid, search parties, etc. The members performed at a very high standard and reflect nothing but credit to the CCCC.

The Silver State Citizens Band Associations Christmas party was a great success with 27 members attending. A membership contest is currently under way with a tube tester and a Webster 49er top loaded antenna as first and second prizes to the one who brings in the most new members. President of the club is George O'Dell, 12W1191. Any club who wishes to exchange papers write: Silver State CB Association, P.O. Box 3102, Reno, Nevada.

The Mason-Dixon CB club, which has over 50 members within a twenty-five mile radius of Chambersburg, Pa., recently elected to office the following for 1963. President, Vic Anderson, 20W4216; Vice President, Crawford Westling, KCD0314; Secty.-Treas., Grace Dubbs, 20W6179. Meetings are held the third Tuesday of each month. The club also prints a monthly new bulletin to keep members aware of the latest activities and meetings. The club monitors channel 11.

On July 21, 1963, the 5 WATT WHIPS of Lowell, Mass., will sponsor "The First Massachusetts State Jamboree. More info in the next issue.

The Mascoma Valley Emergency Communications Team, N. H., was formed in November 1962. They are operating under the REACT program and cordially invite any interested persons or travelers in the area to attend their meetings which are held the 2nd Sunday of each month at the Local Fire Station. Club monitors channel 11. President, Dick Peck, 1Q2290.

Firelands Citizen Band Emergency Net located in the area of Sandusky, Ohio comes the news of a Certificate of Merit for work above and beyond the call of duty from the Sheriff's Dept. Their prompt response in notifying the U.S. Coast Guard was credited with the saving of a human life from the waters of Lake Erie.

The Aurora CB Radio Association of Colorado was formed for the purpose of getting together to discuss and help each other with CB equipment, adherence to FCC rules and regulations, and representing CB to the citizens of their community. President, Charles Chapman, 15W1385.

The Litchfield County Citizen Band club of Torrington, Conn., will hold its Annual Spring Dance on May 4th. Tickets can be purchased from any club member.

The Citizens Band Radio club of Fresno, California meets the last Friday of the month. Club paper is the "Channel Chatter."

THE MODULATOR, official voice of the FIVE-ELEVEN RADIO CLUB, INC., Pa. The group wishes to thank all who worked on the Christmas party, which was a success. Channel 9 is their official channel.

Received word from Bud Murry, KFC1954 that the members of the REACT team around Hancock, Maryland and Needmore, Md., area received their official REACT appointment. REACT of Hagerstown, assisted the fire companies and Community Rescue Squad during a recent fire in the downtown section which lasted over 5 hours. REACT supplied 2 mobile and a portable unit to get air used in backpacks and oxygen for the Rescue Squad when smoke hindered fireman, causing a volume use of face masks. Word around Maryland is that the Huh CB Club and the Apple Valley Citizens Banders of Winchester, Va., are getting together and forming a Communications Federation around the area. Activities are slow around the Cumberland, Md., area, seems that everyone is waiting for the pending proposed new Part 19, reports President, John Kastner, of the Mountaineer CB club.

Ten members of the Ocean County Emergency Aid Network assisted Howell township police on a prowler patrol reports, Fred Sharpe, 3Q1055, the groups president. Carl Irish, KBG6927, program chairman of the Monmouth County Emergency Aid Network, reports that up and coming meetings of the club will feature

speakers from the County Sheriff's office, N. J. State Police, the local First Aid squad, REACT and the FCC.

A new CB club is being formed in the Keansburg, N. J. area with the operations being spear-headed by KBG8019.

Members of the 11 Meter Modulators have been holding drills and went on a social outing recently. Mary Mitchell, KCC0764 is secretary of the club which holds its meetings the 1st and 3rd Tuesdays of each month at the Bayville Old Town Hall. There is no president of this group, they chose a leader for each meeting in order of seniority of FCC call letters. The club monitors channel 3.

Dorothy Clancy reports a successful outing to the Ghost Town of Calico on Feb. 3rd. Members enjoyed a picnic lunch and went on to explore the wonders of this famous California resort spot. An honorary membership was given to Andrew Meagher who donated a CB rig to the Big Bear Sheriff's Dept. in case of an emergency. A complete roster of CB'ers is being prepared and will be given to Club members and all visitors to Big Bear. Club meetings are held on the 1st and 3rd Sundays of each month in the courtroom of the Bear Valley Judicial District. All Welcome.

The 5 Watt Wizards continue to serve CB'ers in the area through KEJ0922, their 24 hr. Monitoring Station on Ch. 9. Carl Wassen of Browning Labs. showed the newest Rigs from his Company during the January Rep. with samples of his Company's production heading towards the 5 WW meeting place. Meetings are held at 7:30 P.M. on the 3rd Monday of the month. The place can be one of several, so check with a club member or read The Carrier, club newspaper. The paper is free, and most electronic CB dealers in San Bernardino and Riverside have a supply as does the office of the Equitable Life Assurance Society at 256 W. Highland Avenue, San Bernardino. This club is now one of hundreds taking part in the National REACT Program. All TVI complaints should be sent to the club at P.O. Box 3364, San Bernardino. A 2nd class Tech is available to help you with your TV set or your neighbors.

SQUELCH, club paper of the Broward Citizens Radio Club, Inc., P.O. Box 8092, Fort Lauderdale, Florida will hold its next club meeting on April 15, 1963. Editor, Bill Seymour is in need of help with the club paper. President of the club, Bud Collins, KDH0879.

Received the Santa Clara County Citizens Radio League Club paper, "Break Break." Bill Wambaugh, KFC2058, club treasurer, was the proud and surprised winner of an International Executive, raffled at their Christmas party. Editor of the club paper is Ed Hoxsie, KFC0289.

The Norwalk "CB" Radio Association now boasts an emergency communications net. The first meeting was held in the auxiliary police room at police headquarters and the net was under way. Club president, Bob Main is Chairman. Club paper is "The Shak."

Coffee Break of the REACT Club of Orange County, held at the Copper Penny in Santa Ana, California. Club paper, REACSHUN will be mailed as soon as possible. This is one of the most active and progressive clubs in the southland. Ed Jones, KEJ1986 is President Pro-Tem, Mrs. Jones, Sally Secretary. Bob Blakely, 11W8551, is the past president of this group. His energy and capacity for work is reflected in the spirit of cooperation and good fellowship present in the membership in the Orange County REACT club. The REACT team is well organized and well thought of in Orange County. They have handled past Polio Clinic drives and have two scheduled in February. The Sheriffs Dept. thinks highly of this group and the work they have done. Thanks again to R. M. Forster KEJ5806.

Be sure to look for the column, "CB IN ACTION," in this (and every) issue of S9. Your club might win a free Pearce-Simpson COMPANION rig, all it takes is the right combination of words in a short letter. This is an exclusive S9 feature!

S9



WASHINGTON OUTLOOK

by EDWIN FREDERICK, 2W4580

LATEST FCC CASUALTIES

The following CB'ers received FCC notices asking them to state why their licenses should not be revoked for violations of the sections indicated:

2A5949, James E. Feyko, Middle Village, N. Y. For "failing to respond to official communication concerning certain false statements alleged to have been made on application for license for his station."

2Q1670, Michael Anthony, Jersey City, N. J. (reason not available)

2Q3700, Peter Hajzer, d/b/a Main Auto Wreckers, Avenel, N. J. For operation in violation of 19.25(c).

6Q1466, Stanley D. Hash, Bristol, Tenn. For failure to answer FCC correspondence.

9Q0786, Marvin Wold, Austin, Tex. For failure to answer FCC correspondence.

10W3377, James Helton, Hooks, Tex. For operation in violation of Sect. 19.33.

11Q0250, Albert P. Maurer, Santa Ana, Calif. For operation in violation of Sect. 19.33.

11W2207, Addison B. Haraldson, La Habra, Calif. For operation in violation of Sect. 19.61(a).

11W8521, John Stewart, Los Angeles, Calif. (reason not available)

13W1064, Walter T. Mabe, Toledo, Ore. (reason not available)

13W1203, Richard C. Samuelson, Portland, Ore. For failing to respond properly to FCC correspondence and allegedly transferring control of station without proper authority.

17Q0944, Bill Smith, Hoisington, Kans. (reason not available)

18A6870, Glen L. Davis, Chillicothe, Ill. For operation in violation of Sects. 19.61(a), 19.62, 19.72, 19.72(b), and 19.92.

18A6916, Merrill Miles, d/b/a Maywood Garage, Hammond, Ind. For "failure to respond to letter requesting that he furnish replies to certain interrogatories relating to the operation of his station."

19A4476, Ray Walter, Delta, Ohio. For operation in violation of Sect. 19.25(c).

19W2051, Garner D. Barker, Charleston, W. Va. For operation in violation of Sects. 19.61(g) and 19.62.

KDH0307, William J. Sirmans, Ft. Lauderdale, Fla. For operation in violation of Sect. 19.33.

KDH0455, Gordon T. Riggs, Miami, Fla. For operation in violation of Sect. 19.72.

KED1181, Charles Lozano, Houston, Tex. For violation of Sect. 19.61(f).

After all the great commotion generated by Ernest L. Walker, of Espanola, N. M., the FCC finally washed their hands of the matter by telling him that he could re-apply for a new CB license after next January.

They dismissed and returned, under Sect. 1.545(c) of the rules, Walker's application for two Class D stations which were repetitious of his existing CB license (which was revoked effective Jan. 7, 1963 for his working "skip").

Prior to this latest action, Walker was the center of a controversial barrage of broadsides at the FCC regarding his license revocation.

Another seemingly "hot" FCC item surrounds Warren G. Holleman of Annandale, Va. Originally ordered off the air on February 1, Holleman was successful in securing an extension of this deadline until February 15.

Holleman stated in his request for extension that he intends to file a petition for reconsideration by the FCC, or in the alternative, an appeal of the FCC's order. He said that the extension was necessary so that he

could have his lawyer check over the facts in the case. He claimed that the Class D station was necessary for his business operations and that the revocation of his CB license would cause him "irreparable injury and untoward harm."

After several months of back-and-forthing with the FCC, Warren J. Currence, 4W0152, of Elkins, W. Va. finally lost his CB license for use of "profane language in the course of radio transmissions" and for violations concerning the FCC rules governing permissible communications.

Isaac J. Russell, d/b/a Russell's Taxi, Calais, Me., was denied his application for a CB station. Russell lost his previous license because of the fact that the FCC found out that he was not, in fact, a U.S. citizen. He is now a naturalized citizen and therefore re-applied.

In turning down this second application, the FCC stated that Russell had "willfully and knowingly" regularly used his CB gear after the first license had been revoked. During the hearing, Russell had claimed that such operation had not taken place. Testimony was given by local police officials that they had personally observed the unlicensed operation and that they had heard Russell's equipment being used on the air.



KBG4303 RIDES AGAIN

Continued from page 7

wonderful years of free advice and I think we can muster up enough strength to go it alone from here on in. Perhaps these Amateurs will now retune their receivers to the marine frequencies of 2638 kc/s and 2738 kc/s this summer, dig a little of the antics, and devote 4½ days of free advice to the yachtsmen. Or, and this might be a switch, tune across the ham bands to see if there are any rule infractions there.

RANDOM RAMBLINGS

"Things - long - since - forgotten - but recently - found - while - cleaning - the - CB - shack" Department: . . . a Philmore TC-11 CB rig . . . a tattered and beaten Channel 11 rock . . . membership card in the 5 WATT WIZARDS . . . Class B CB license with callsign 2A0305 . . . one copy each: CB PRESS, NCBC NEWS, HORIZONS MONTHLY CALLBOOK SUPPLEMENT, CB NATIONWIDE NEWS . . . QSL card from Joe Baznik dated June,

1959; his 19W1552 was the first skip station regularly heard in New York . . . set of instructions for building superregen receiver . . . photo of unidentified CB author (30 lbs. lighter) with CB rig, from September, 1959, POPULAR ELECTRONICS . . . copy of CB HORIZONS article entitled "WORKING SKIP LEGAL?" . . . memo to listen for 2W1377 testing his new "Stoner" rig . . . instruction manual for Setchel-Carlson "Porta-Fone" transceiver . . . telephone message to call 2W2933 (who dat?) . . . autographed photo of Chuck Greene inscribed "Grow with the NCRL" . . . reminder to listen for mysterious tape of 2W1352's voice being played nightly by persons unknown on Channel 9 . . . and lastly, a 1958 letter from Don Stoner suggesting that I try writing articles about Citizens Band.

THE PILGRIMS' PROGRESS

When you think about it for a few minutes, it sort of shocks you to think that S9 is rapidly approaching its first birthday. These past months have really flown by and we're still a bit dazed by our progress.

To fill you in on some behind-the-scenes data, S9 is nationally distributed on newsstands by the nation's leading magazine distributor. Our first month on the stands, last September, set the pattern for us. Since then our newsstand sales have been steadily on the rise and subscriptions have been growing at the same rapid rate. What it all boils down to is the simple fact that we are *still* the only all-CB publication of *any kind* which can be purchased nationally at newsstands, S9 is the largest circulating publication for CB'ers, and (from the looks of the mail), the most popular.

POT SHOTS

As many of you know, I have been associated with a number of other magazines, club publications, news bulletins, etc. prior to my affiliation with S9. We recently read something in one of these news bulletins (this one, a mid-west pamphlet directed towards western area CB'ers) which was interesting in the fact that it was a clumsy snipe at S9 from the editorial bulrushes—and it gave us the feeling that maybe our influence on the CB market is causing slightly more than a little agony with these people. I'm sorry if S9's success offends anyone, however I imagine we can now look forward to being on

the receiving end of a long and endless barrage of mud as we continue to grow.

AUTHOR, AUTHOR!

Don't forget, S9 pays the *highest* authors' rates in the market for good CB articles (with photos, if possible). We're always looking for worthwhile topics, and we don't care if you happen to be a few pegs below William Saroyan—as long as the subject is covered thoroughly we can always set one of our eager re-write editors to work on polishing up any rough spots.

We like any kind of simple construction projects, club activities, rig modifications, articles on unusual aspects of or uses for CB, or general articles which will be liked by a hep group of fellow CB'ers. Novelty or CB humor articles are OK too. Don't forget Part 15 features.

We're always in the market for good cover shots too. If you send us a glossy CB photograph which we use on our cover it will mean a fast \$10.00 heading in your direction.

FROM A MANUFACTURER

A leading CB manufacturer has requested permission from S9 to commercially market one of our exclusive construction projects. This gave us an idea. If other manufacturers are interested in marketing any of S9's construction projects they can feel free to step forward.

NEXT MONTH

I'm a pretty conservative type, and have never been subject to fits of ranting and raving about coming issues of S9. I did want to break this rule, however, (just a little) for our May issue. Our May issue will be devoted to mobile CB'ing and will contain more articles on the subject than have ever appeared in any single monthly publication. It will really be a mobile handbook—with just as much data as the ones which sell for \$2.95 or more, only ours will still be the usual 50¢. Here's the bit—the newsstand distributors saw a rough pasteup of the issue and told us that they feel this issue will be a rapid sell-out. They have even requested additional copies. If they know what they're talking about (and they wouldn't be in business if they didn't) this thing will be stripped from the stands by its first week on sale. Subscribe by April 15th and we'll reserve a copy for you. There may not be any of these special May Mobile Handbook issues left if you goof now and decide you want one later.

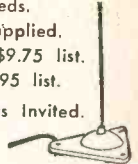


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ANTENNAS

Continued from page 45

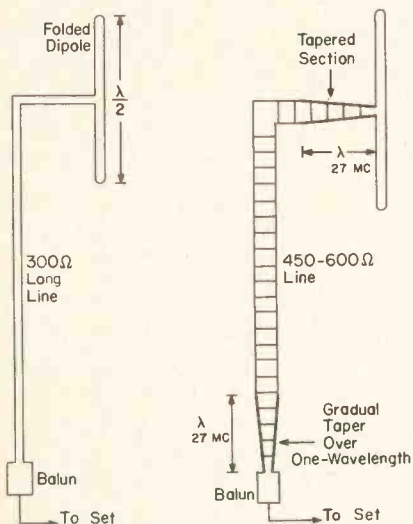


Fig. 8. There are several methods of feeding an antenna which must be located far from the CB rig. One method uses 300 TV lead-in, the other uses 450-600 ohm line.

Yes, such a technique can be used to extend CB range. Most of these lines are either of the 300-ohm type or they are open-wire higher-impedance lines which have tapered transformers at each end to bring the impedance back down to 300 ohms.

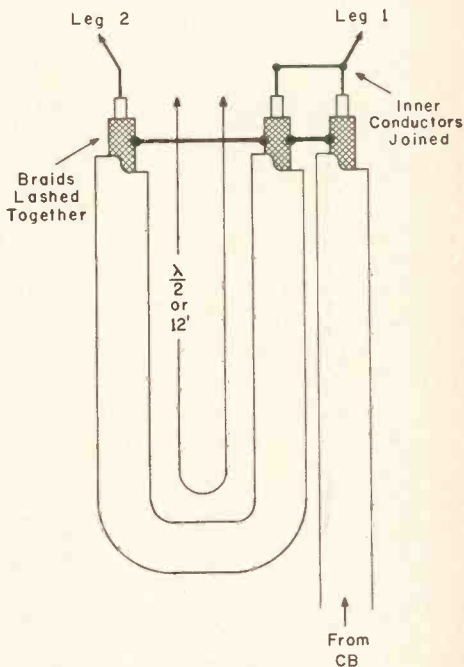


Fig. 9. Coaxial balun.

An arrangement that can be used for such an installation is suggested in Fig. 8. At the top of the hill a folded dipole vertical antenna can be employed. The characteristic impedance of the vertical folded dipole is 300 ohms and provides an appropriate match to the line termination. At the CB transceiver end a balun, Fig. 9, can be used. It provides 4-to-1 balance-to-unbalance impedance transformation. Therefore a reasonably good match is established between the line and the transceiver. Typical dimensions for CB operation are given in Figs. 8 and 9.



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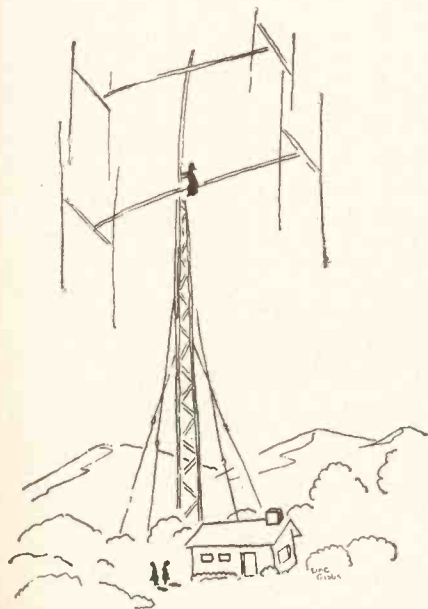
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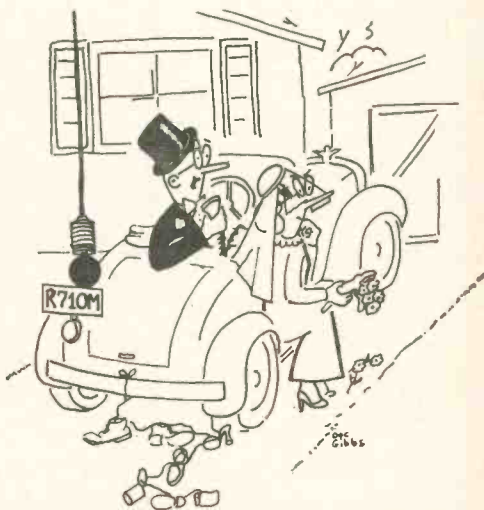
"Well, Fred, I can't remember when I've had a more enjoyable QSO."



"And, Honey, wait 'til you see the shack. I've built the equipment into the wall."



"Sometimes I almost wished he drank or chased women like other men."



"Okay fellas, just a couple more go-raunds."



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We do not bill for advertising in CB SHOP. Full remittance must accompany all orders and orders sent in otherwise will not be run or acknowledged.

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