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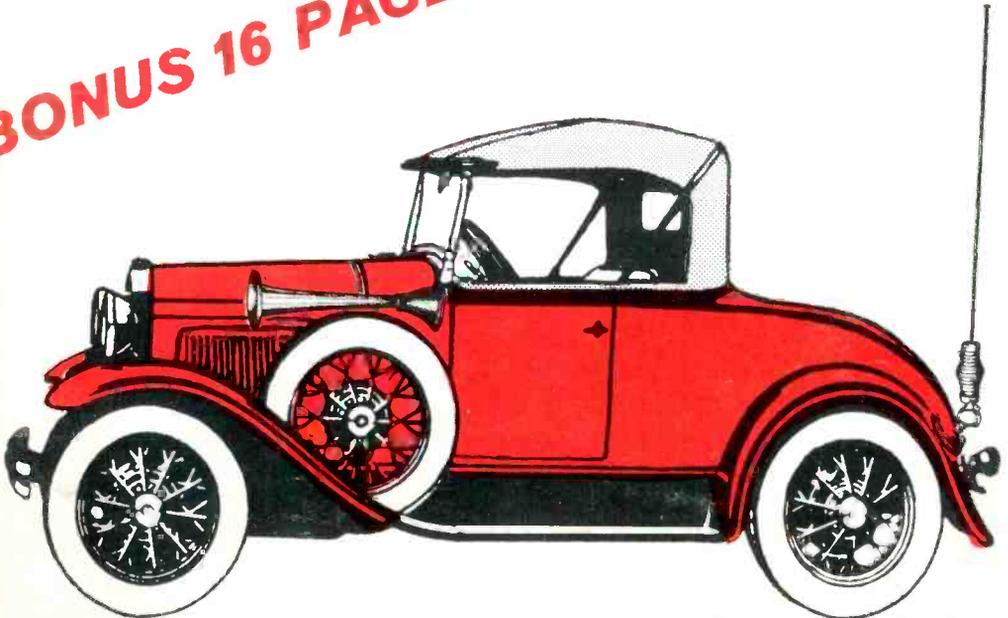
the citizens band journal

**SPECIAL 1964
MOBILE CB ISSUE**



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BONUS 16 PAGE MOBILE CB BOOK



23

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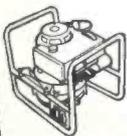
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the citizens band journal

Vol. 4, No. 4

S. R. COWAN, KBI7182, PUBLISHER

April, 1964

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

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READER MAIL

GOLDWATER COMMENT

Dear Tom,

I picked up S9 and when I read your editorial (February, P. 7) I could just see RED in regard to your letter to Mr. Barry Goldwater, quote, "we promptly fired off a letter to Senator Goldwater." I don't think the man is out to do anyone any good if he runs for president. You plain and simple asked him to confirm or deny the allegations and I think that he had a very neat way of evading the simple question. He didn't confirm or deny the issue. I think that he is capable of trying the most preposterous thing in the world as he said, and that is as close as he came to denying the issue. Since Mr. Goldwater was tricky enough in his answer, we should assume the attitude that he is out to abolish CB. Let's not be too hasty in accepting his statement.

(unsigned)

This letter was unsigned and postmarked "Will. & Seattle R.P.O., TR27," which is apparently a railway post office.

HARD TO GET

Tom:

We had 10 CB'ers from Spartanburg, S. C., here and they said that all the copies of S9 were sold off the stands there. Also, the CB'ers in Greenville, S. C., said that the publication can't be obtained locally within the first five days after it goes on sale. I, myself, checked all of the stores here in Charlotte and they were sold out. Please have your Circulation Department send some more copies down our way each month.

Carlos F. Brown, 5W4076
Charlotte, N. C.

Sorry, Carlos, this is a problem which we are facing in several parts of the country. While it is always flattering to see the demand greater than the supply, we would like to see a copy of S9 available for each CB'er who desires one. Until we work out arrangements with our national distributor to handle additional copies, the only way to be certain of getting one each month is by subscribing.

NATIONAL CLUBS, ETC.

KBG4303,

A big 10-4 regarding S9's stand on the ACBA. Help! I am addicted to S9, what do I do, subscribe for another year?

Nolen Dillon, KHJ5187
Grand Rapids, Mich.

Mr. Kneitel,

I became a member of ACBA rather hastily and made a mistake. I am quite discouraged with their tactics and will not renew my membership. Keep it up!

Andy McEluce, KCC2078
Chanute AFB, Ill.

Dear Sir:

Your publication is the best on the market and we back your editorial policies 100%.

F. S. M. Bailey, KEH1065
Emergency Communications Org.
Texarkana, Tex.

Hi Tom:

ACBA is for the sheep. They asked me to join, but no dice. I have never come across a satisfied member of the group.

Dick Chadbourne, KBC6221
Biddeford, Me.

Tom:

Heard that ACBA folded up along with CB Horizons. Good riddance!

Dr. James W. Mayfield, KEH2242
Norman, Okla.

Dear Tommy:

I used to look forward to receiving CB Horizons each month until they started "pushing" the ACBA. I really knew something was haywire when I saw that the former CBH staff members have now come out *against* the ACBA. Now then, quite a few of us are wondering just what is *really* happening. How about finding out what the *true* score is, Tom. Thanks a million for S9.

Jim Cross, KCF0823
Hagerstown, Md.

BOILED HAMS

Dear S9,

As a long time Ham operator, and one of the first licensed CB'ers in Texas, I feel I'm unbiased in the "conflict" between some Hams and CB'ers. I see a need for both, but I think that by the number of violations, you must agree that some of the Hams feel resentment at the poor use of the frequencies by some.

Regarding your January editorial on the ARRL, you can't imagine how many Hams agree with you. I only hope the ARRL wakes up after 50% (or more) of its membership drops out. Hats off to magazines like S9.

M. T. Morris, K5PUA
Tyler, Texas

Tommy:

Where did all the "smoked up" hams get the idea that CB costs so much? They probably haven't looked at the ads in S9 recently.

Anyway, why should it make any difference to them about the price of a CB rig because it isn't costing *them* a cent. I'll spend my money any way I like and if a Ham doesn't like it that's *his* problem.

I was a Ham myself once but I never could find it to be half as fascinating as CB.

Don Huntley, KDD1522
Asheville, N. C.

S9

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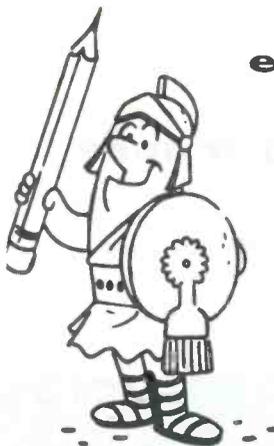
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editorial

KBG4303 rides again!

by TOM KNEITEL
EDITOR, S9

NOTHING PERSONAL

Some of you out there have been shaking a bony finger to accuse S9's staff of having a personal "thing" against the ACBA and it's chief, and that we paint a dismal picture of the organization for lack of something better to do with our time.

We recently observed that S9 has now been joined in its ACBA sentiments by another publishing voice. It looks as if the "grudge accusers" will now have to either include these other people in their opinions or will have to take a realistic look at the situation and realize that they were wrong from the start.

PONDERINGS

The New York area has been flooded with colorful brochures announcing the arrival of a new club, the *International Citizens Band Association*, or "ICBA." The literature in question is most appealing and there is a \$5 membership fee. They are pledged to make efforts to obtain legal higher operating power and "to protect you from illegal operation of sets, and from all abuses of the Citizens Band such as persons using foul language, music, unmodulated carriers, tapes, etc."

Oh, by the way, their brochure casually mentions that, *upon request*, members will be supplied with details of a life insurance policy which covers you for pennies per day without any medical examination. The request for an insurance *application* is contained on their "Charter Membership Application Form." For your \$5 you receive an insurance application, a membership card, special charter membership certificate suitable for framing, and an auto decal, all "promptly," they point out.

So we pondered a bit, putting two and three together, and while we were pondering the situation, the telephone rang. It was

a non-CB'ing friend telling me that he was asked to invest \$2000 in a new "national" CB club which was bound to rack up fantastic profits for its investors by a clever method. Apparently there already was a President for the profiteering club (he didn't say who elected the president).

We're *still* pondering, only now it seems to all up a little more like two and two. Anybody need some cheap insurance? No? How about investing a few grand in a potentiality good business, a national CB club.

QSL CARDS

There has been an increasing amount of mail from clubs and individuals who ask our permission to use cartoons and other illustrations from S9 on QSL cards. Our policy is that we have no objections to this provided that the cartoon or illustrations bear the inscription, "copyright S9 Magazine." We would like to have copies of such cards for our office collection.

REPRINTS

CB Clubs have also requested that we give them permission to reprint S9 articles in their club papers and newsbulletins. Here is our policy, as reported in our December, 1962, issue.

"First, the only articles which may be printed in these publications are those of the 'editorial' kind, as differentiated from the technical construction type (which it is not permissible to reprint). Secondly, the articles run in S9 may not be used until at least one subsequent issue of S9 has gone on sale (that is, articles from this April issue would not be available for club reprinting until the May S9 is issued). Third, we require a file copy of the entire publication in which the material appears. Lastly, all

Continued on page 73

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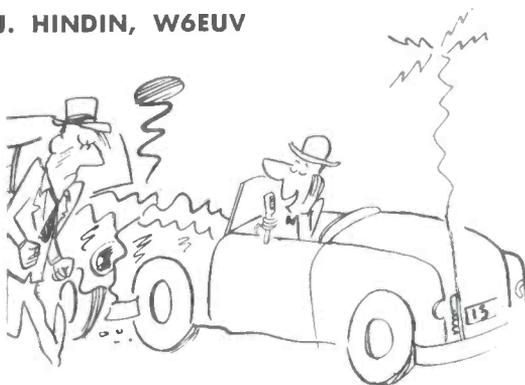
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legal aspects of mobile citizens band use

by MAURICE J. HINDIN, W6EUV



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Mobile transmissions have on numerous occasions been heard by patrol cars in the immediate vicinity of the CB's automobile

on police channels. This will invariably cause severe annoyance to the mobile police operator. On-the-spot orders to cease operation are frequently given, with a trip to the police station being the citizens band operator's only alternative. Remedy for this difficulty lies principally in cleaning up the mobile transmitter so that the harmonics and spurious radiation are reduced to a point that such interference can be eliminated. While legally the citizens band operator has as much right to operate his transmitter as the police, practical wisdom suggests avoidance of trouble as a preferable alternative to costly litigation to test this particular case.

B. LOCAL AND STATE LAWS AFFECTING MOBILE OPERATION.

The second source of difficulty involves conflicts with authorities because of local and state laws relating to the installation and use of short wave radio equipment in automobiles.

Several states and municipalities have from time to time enacted state laws and municipal ordinances prohibiting interfering with police radio broadcasts or even prohibiting the equipping of automobiles with radios capable of receiving them.¹ The purpose of such laws

1. An example of such law is the New York State Statute which is quoted: Sec. 1916, Penal Law of State of New York, as amended, L. 1948, c. 183, and L. 1948, c. 533, which provides as follows: "1916. Equipping Automobiles with Radio Receiving Sets Capable of Receiving Signals on the Frequencies Allocated for Police Use.

A person, not a peace officer, who equips an automobile with



"... officials do not appreciate having motorist arrive at the scene of a police call ahead of the attending officers . . ."

is obvious. Police officials do not appreciate having motorists arrive at the scene of a police call ahead of, or simultaneously with, the attending officers, to say nothing of illegal use of the knowledge that may be gained from such police calls. Since the respective state and municipal ordinances each vary somewhat in content, no attempt is made here to analyze each such enactment. The citizens band operator should have no trouble securing a copy of his state's applicable law.

Many such laws require that the owner of an auto so equipped must register the same with the local police department or secure a permit for it from some designated local authority. Where such laws and ordinances have been enacted, permits may be secured by licensed operators simply by making an application therefor. Many operators have

a radio receiving set capable of receiving signals on frequencies allocated for police use or knowingly uses an automobile so equipped or who in any way knowingly interferes with the transmission of radio messages by the police without having first secured a permit so to do from the person authorized by issue such a permit by the local governing body or board of the city, town or village in which such a person resides, or where such person resides outside of a city or village in a county having a county police department by the board of supervisors of such county, is guilty of a misdemeanor, punishable by a fine not exceeding one thousand dollars, or imprisonment not exceeding six months, or both. Nothing in this section contained shall be construed to apply to any person who holds a valid amateur radio operator's license issued by the Federal Communications Commission and who operates a duly licensed portable mobile transmitter and in connection therewith a receiver or receiving set on frequencies exclusively allocated by the Federal Communications Commission to duly licensed radio amateurs."

found themselves in temporary difficulty by not registering when so required.

While it is doubtful that a state or city could legally prohibit the use of mobile equipment by citizens band operators entirely,² it has not yet been determined by the courts whether or not a state or municipality can validly require notification to proper police officials of mobile transmission or mobile transmitting equipment. Until the courts finally pass upon such a proposition, it would be well to assume that where state or municipal ordinances require notification to the police department, such regulations are valid and should be complied with. This is true for the reason that it is generally recognized as a legal proposition that the right to use public highways is not an absolute one, and the state can properly regulate the equipment and conduct of vehicles on state highways.³

2. MOBILE OPERATION AS A BASIS FOR NEGLIGENT DRIVING.

Most states have enacted laws making it a crime to drive an automobile in a reckless or grossly negligent manner. Likewise, negligent operation of a motor vehicle imposes civil liability upon the owner or operator of a vehicle. To the author's knowledge no cases have reached a court of last resort where the operation of a mobile transmitter while the auto was in motion was directly proven responsible and the driver shown to be negligent in an accident. Naturally such conduct constitutes obvious negligence in driving under certain circumstances. This aspect of mobile operation should seriously be contemplated by all mobile operators. Negligent inattention to driving a motor vehicle has long been established as a legal basis for liability.⁴ If the negligent inattention to the duties of driving is traceable directly to a driver's preoccupation with his operation of a mobile transmitter, the fact that he holds a license to transmit from his automobile or is operating legally under a Federal Communications Commission regulation would afford him *no* defense to the charge of negligence in operation of his auto.

An accident occurring while the operator was engaged in operating his mobile station could well be blamed upon his radio activity. The license or authority granted by the Federal Communications Commission to operate a mobile radio transmitter does not give him license to endanger property or life by his

2. Federal Communications Commission vs. Nelson Bros. Bond & Mortgage Co., 289 U. S. 266; Whitehurst vs. Grimes, 21 Fed. 2d 787; Dumont Laboratories vs. Carroll, 189 Fed. 2d 183; Tampa Times vs. Burnett, 45 Fed. Supp. 166.

3. American Jurisprudence, Automobiles, p. 531; 64 A.L.R. 1004.

4. American Jurisprudence, Automobiles, p. 637; 86 A.L.R. 1149.

careless or negligent operation of his automobile. Traffic conditions, weather, conditions of the highway, and other variable factors well known to every motorist, may well require the reasonably prudent operator to desist from operating his transmitter while actually driving his automobile. The potential criminal and civil liability which might well follow an accident should give the thoughtful operator pause for serious concern.

Two obvious solutions to this problem present themselves: the first is, the operator should park his automobile while operating his mobile radio equipment; the second is, if he desires to operate his equipment while the vehicle is in motion, someone else should drive the automobile for him while he operates the rig. Although neither of these solutions may be to the operator's liking, the legal consequences of an accident while the operator is engaged in mobile radio operation can be of such serious consequence as to render the suggested precautions the lesser of the two evils.

3. PRECAUTIONARY CHECK LIST FOR MOBILE OPERATION.

The following steps will help translate the foregoing observations into a practical check list for citizens band operators:

(1) Write to the state department of motor vehicles of your state and get a copy of any state statutes relating to licensing or notification requirements for automobile transmitters and receivers.

(2) Write to the city clerk of the city or town in which you live and ascertain if there are any ordinances requiring notification to the police where transmitting equipment is installed in automobiles.

(3) Run an actual interference test in the vicinity of a radio equipped police car in your community. Most police patrol units will be glad to cooperate. If your mobile signal can be heard on the police channel when your car is within several hundred feet from the police radio car, take such steps as are necessary to correct this condition.

(4) If you are driving alone, park your car before you begin a transmission, or, if you are accompanied by someone, let them drive while you transmit.

(5) If you are driving alone in your car and feel an urgent need to operate mobile while your car is in motion, carefully evaluate whether or not traffic, weather, and road conditions will permit you to safely operate your automobile and your mobile rig simultaneously. Bear in mind that operation of your automobile while operating your radio transmitter could make you liable for negligent operation of your automobile.

STOP SMOKING

SO MUCH!

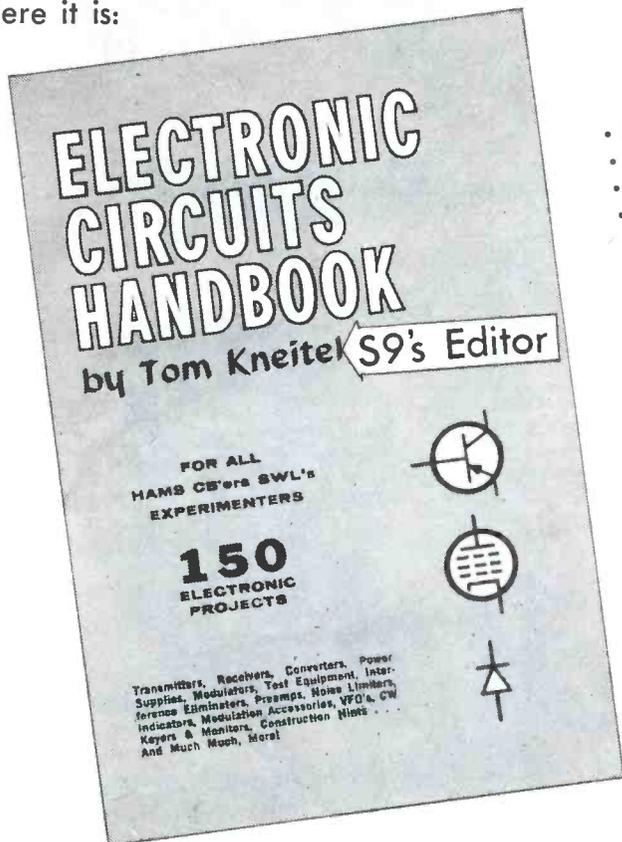


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- Crystal Receivers
- All-Band Receivers
- Broadcast Tuner for CB Rigs
- Receiver Preselectors
- CB Preamplifiers
- Noise Limiters
- Q-Multipliers
- Heterodyne Eliminator
- Weak Signal Detector
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- S-Meters
- Line-Noise Filters
- TVI Filters
- Mobile Unit Burglar Alarm
- Schematic Symbols Chart

Here is the book we've all been waiting for! By "Mr. CB" himself, S9's Editor, Tom Kneitel, KBG4303. Tom has compiled a book which presents and discusses in detail 150 of the most often needed circuits around the shack. Beginners, old timers, Hams, and experimenters will find many valuable circuits for construction projects. There's even a chapter which tells how to make all construction projects "a snap." Here's a book which is a MUST for each and every CB'er, written by the leading authority on the subject! Get yours NOW!

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ALSO GUAM, VIRGIN ISLANDS, LITTLE AMERICA, ETC.

by THE OL' TIMER

Lefty McGurk was a strange cuss, but then most CB'ers are a little odd at times. But Lefty was different. For instance, he was a QSL collector. Oh, he wasn't interested in QSL swapping—he wanted only to actually *work* CB'ers in all states and U.S. territories. In fact, the thought of actually working them on 11 was an obsession with him, and he was determined to do it despite the derision of his fellow club members and all FCC rules to the contrary.

HOW HE DID IT

How he set out to do it was a bit funny to the rest of us. Just to make it harder, he decided that he would accomplish this using an un-souped-up CB rig and only a short piece of wire for an antenna. We tried to tell him about the obvious necessity of a bootleg thousand watt rig plus all the elements on a beam he could persuade to stay in the air. Lefty shrugged off all suggestions we had to offer, including those who suggested he repair to a good psychiatrist forthwith. We sadly shook our heads at this awful state of affairs, and most of us just muttered, "Poor old Lefty." We were sure Lefty had finally blown his overloaded main fuse.

We heard him a few times after that, his wheezing, undermodulated signals barely nudging the S-meter. He didn't appear at the next two clubs meetings, and we seldom heard his signals on the air. But last week, when the band was especially quiet, we thought we heard something that really shook us up. Sounded almost like Lefty signing off with a station in Alaska. Of course, this couldn't have been right, so we shrugged it off, blaming it on mistaken identity. But just in case, I decided to visit Lefty and take a look around his shack. If he *had* been working out like this, it wasn't with his 40% modulation and piece of wire.

Lefty's XYL met me at the door and invited me in, saying Lefty was in the shack. I sneaked over to the door and glanced in. Lefty was apparently in contact with a CB'er

in Hawaii. He was so engrossed I didn't bother him, but just looked over the shack, including under the table, in the closet and even under the solder-spattered rug, looking for the illegal kilowatt final. True, I hadn't noticed any beam on the roof, just a short hank of wire hanging in a nondescript semi-coil outside of his window. I didn't find any special equipment at all, in fact he wasn't even using his regular CB rig, he had one of those low powered miniature rigs made especially for short distance work. I glanced at the S-meter and saw that the Hawaiian fellow was running a solid 40 DB over! This I knew was impossible, because I read in S9 where this guy on Hawaii was running a 100 milliwatt walkie talkie. And in my day, a walkie talkie on Hawaii would have a rough time pinning a needle in Indiana. I must have stood there with my mouth hanging open, not making a sound, because Lefty never noticed me. I vaguely recall him saying 73's and making quick check over the band. All the signals I heard were Hawaiians and nothing else. What a band opening this must be and would I like to see how my receiver stacked up against Lefty's!! I dashed madly out of Lefty's and broke all the speed laws getting back to my place to get the rig fired up. I swung the receiver dial madly back and fourth, but the only signals coming through were locals, and even they were pretty weak.

This would bear some looking into. I left the receiver running and gave strict orders to the XYL to call me immediately if the band started to open. Told her I was going over to see Lefty.

Lefty's XYL looked at me rather strangely when I got back, but I mumbled something about a band opening and went into the shack. Lefty was still on the air. Unless my ears deceived me, this time he was working a guy on Wake Island. Good grief, he was working Wake Island on a Part 15 rig. I sat down weakly on a stack of dusty *CB Horizons* and just sort of listened. This station was booming in like the Hawaiian. Lefty glanced at his watch and hurriedly

ended the QSO, saying something about having a schedule with a station in the Virgin Islands. This I had to see. I knew it was impossible, but I'd seen a couple of impossible things so far. When Wake Island signed and told Lefty that the card would be in the mail that afternoon, he ambled over to a phone on the wall I hadn't noticed before.

Lefty was back at the phone again, and I heard him say something about a Florida sked. I wasn't surprised when Florida blasted in like a local. Lefty must have worked a dozen states all over the country while I just sat there paralyzed. Seems to me I heard him say, "Well that's the last one," as he pulled the big switch.

I came-to slightly when Lefty saw me,



"OK on that Virgin Island sked," he said, and put the phone down. He went back to the rig and growled an almost unintelligible call in the mike, then flipped over to receive. The Virgin Island station was calling Lefty!

"Hi Lefty, good sigs down here today running about 50 DB over S9 on this busted meter." There was more of this, but I didn't want to hear it; I was too busy getting to the phone. When the XYL answered I must have shouted some. After a few minutes I was out of breath and I heard her say "No, there's no band opening. Even the locals are down in the noise. Here, you listen," and she held the phone up to the speaker while she swished the old inhaler over the band. Nothing. Just little blurbles in the noise level. The phone slipped out of my hand and I went back in the shack.

and managed a thin "Hello." He helped me up and we went into the kitchen where his XYL had coffee set out. Lefty gulped a slug of coffee and grinned at me.

"Reckon you're a bit curious, aren't you?" he said.

"Who, me? Curious? Not me; I quit. CB is getting too complicated for me, I'm taking up butterfly collecting."

"Well," Lefty told me, "I finally worked all states and territories on 11 meters, and you were right, it wasn't one bit easy. In fact, it cost me quite a bit, too." We got up while the men carried out the rest of the kitchen furniture. Lefty glanced sadly out of the window, at the van being loaded with furniture, while the finance company checked each item on his list.

Continued on page 75

TAXES AND THE CB'ER

YOU CAN'T ESCAPE THEM, BUT MAYBE YOU CAN LIGHTEN THE BURDEN A BIT—LEGALLY, THAT IS!

Knowing the answers to important income tax questions can save money for the CB'er at tax-paying time—help him avoid overpayments and guard against the taking of deductions which are not allowed, and which lead to later penalties or fines.

Here are some common questions put time and time again to tax advisors, along with authoritative answers which can help you better understand the relationship between CB'ing and income tax.

Q. Am I allowed to depreciate the cost of my CB equipment?

A. Does it produce income? Only things which produce income—or are necessary to the earning of income—may be charged off as expenses (other than certain personal expenses such as medical charges, deductible only when using the long form).

Q. Some of my CB equipment was

damaged in a recent heavy storm. Am I allowed to take off the amount of the loss in figuring my income tax?

A. To the extent that the damage was not made good by insurance—yes. And then only if you choose to itemize personal deductions on the long form rather than take the "blanket" deduction of about 10% that is allowed on the short form.

Q. Suppose the insurance paid only part of the damage?

A. Then you would have a claimable loss for the part *not* paid by insurance.

Q. How about this situation. Equipment that cost \$200 was insured for \$280—the present replacement cost—and the insurance company paid

off in that amount after a fire had destroyed the equipment. Would I have to pay income tax on the \$80 "profit?"

A. That depends entirely upon what you did with the \$80 "profit." If you spent it immediately to buy similar equipment of no more than actual value, then Uncle Sam will take the realistic view that you got only a replacement of your loss. However, if you pocketed the money, delayed, or spent it on something else, then the tax people consider that you made a gain—and they want their share in the form of a tax percentage.

Q. During a recent disaster, I worked around the clock relaying messages and otherwise helping to keep a communications network going. Can I deduct the value of my services as a donation to a public cause?

A. The value of personal services may never be considered a personal

donation. However, you are entitled to claim any actual monetary outlay during the disaster period.

Q. I recently won a \$200 CB rig as a door prize at a CB jamboree. Must I report this?

A. Yes. All prizes count as income. If you had been given \$200 in cash instead, this would have obviously been taxable income. You must declare the regular market value of the CB set on your tax form, just as if you were reporting cash income.

Q. What taxes may I deduct?

A. For personal deductions by CB operators who use the long form tax return, the Treasury notes that "Deductible taxes include state and



Continued on page 76

CB SCOOP of the YEAR! ▶

THE *Fabulous* NEW LAFAYETTE DELUXE "RANGE BOOST" 23 CHANNEL CRYSTAL CONTROLLED CB TRANSCEIVER MODEL HB-333 with New Double Sideband 100% Full Modulated Carrier



Made
in USA

209⁵⁰

\$21 down
As little as
\$10 Monthly

LOOK AT THESE OUTSTANDING FEATURES



1. Illuminated 'S' Meter Indicates Signal Strength and Relative Power Output
2. Push-to-Talk Noise Cancelling Ceramic Microphone for advanced Electronic Switching Circuitry
3. Variable Floating Series Gate Noise Limiter
4. Adjustable Squelch
5. Range Boost ON-OFF
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9. PRIVA-COM Selective Call Socket
10. Illuminated Channel Selector Dial
11. Built-in 117 V AC Power Supply plus 12 Volts DC Mobile Vibrator Power Supply

With the HB-333 Lafayette advances CB transmission to a new high. Try it yourself and you'll know why it welcomes comparison.

- ★ 23 Channel Crystal Controlled Transmit and Receive Circuit—All Crystals Supplied!
- ★ "Range Boost" Ensures 100% Modulated Double Sideband with Full Carrier At All Voice Levels — Plus — Dependable AVC, Noise Suppression, Squelch and Excellent Voice Recovery All The Way Out to Maximum Range!
- ★ 20-Watts PEP Input!
- ★ Better Than 2/10 Microvolt Sensitivity—Pulls in The Distant Signals!
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- ★ 12 Tuned IF Circuits For Exceptional Selectivity!
- ★ 2 Nuvistors (RF and Mixer Stages) Plus 11 Tubes, 4 Silicon Diodes, and 1 Zener Diode!

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LAFAYETTE DELUXE DUAL-CONVERSION C.B. TRANSCEIVER

- Super Selectivity, Sensitivity and Stability
- 9 Tubes plus 3 Silicon Diodes plus 2 Crystal Diodes for 17 Tube Performance
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- With Bracket Handle, Push-to-Talk Ceramic Mike, Transmit and Receive Crystals for Channel 15 plus Crystal for Dual Conversion



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\$7.00 Monthly

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Made in U.S.A.



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- With Push-to-Talk Ceramic Mike, Channel 9 Transmit and Receive Crystals

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- 23-Channel Crystal-Controlled Receiver & Transmitter—All Crystals Supplied
- Dual Conversion Superhet Receiver Uses 1650 KC and 282 KC IF's for High Selectivity and Sensitivity
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HB-222

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\$19.00 Down
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LAFAYETTE HB-115 PUSH-TO-TALK C.B. TRANSCEIVER



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59⁹⁵

HB-115

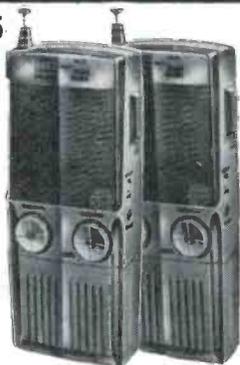
- 8 Crystal-Controlled Transmit Positions
- Tunable Superheterodyne Receiver Over All 23 Channels
- Pi-Network for Maximum Power Output
- With Push-to-Talk Ceramic Microphone, Mounting Bracket, Channel 15 Transmit Crystal

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LAFAYETTE HE-75
1-WATT
13-TRANSISTOR
"WALKIE TALKIE"

66⁵⁰

2 for 129.00 Imported



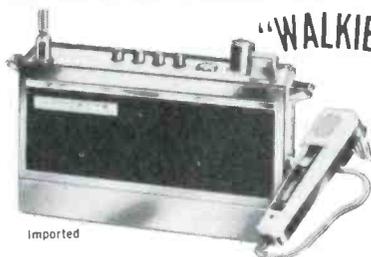
- Variable Squelch Circuit
- Crystal-Controlled Receiver and Transmit
- Uses Powerful Silicon Output Transistors
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"WALKIE TALKIE"

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- External Push-to-Talk Dynamic Microphone for Greater Range
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FOR THE YOUNGSTERS
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- Range Up to 1/4 Mile
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CB "WALKIE TALKIE"



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- 115V to 9V Power Pack Optional At Extra Cost
- Complete with Earphone, Leather Case, Antenna and Penlight Batteries
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12-TRANSISTOR
"WALKIE TALKIE"

with Noise Squelch

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- Separate Microphone and Speaker for Better Modulation and Increased Range
- Crystal-Controlled Transmit & Receive
- Superhet Receiver Has AVC, Push-Pull Audio Output
- Optional Plug-In 117 volt power pack
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- No License Required (FCC Reg. Pt. 15)

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Quartet

THE BEST IDEAS SUBMITTED BY S9'ERS

1. RECEIVER DRIFT CURE

Here's an idea submitted by Richard Mollentine, 17W3963, of Olathe, Kansas. It's a method of reducing, or *altogether eliminating*, drift in a tunable CB receiver.

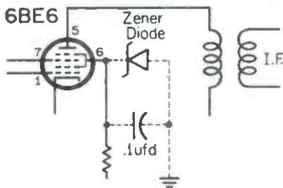


Fig. 1. Receiver drift cure for tunable units. Added circuit is shown in dotted lines.

Determine the screen voltage of the receiver's oscillator tube and then obtain a Zener diode with a cutoff voltage of approximately 10% less. For example, if the screen voltage is 73 volts, 10% of this would be 7.3 volts, and you would want a 65 to 67 volt Zener. Using short leads and a heat sink, solder the Zener from the screen pin on the tube socket to ground. Place a .1 ufd disc capacitor in parallel with the Zener diode. This whole circuit, as it would be hooked up in a typical receiver circuit, is shown in Fig. 1.

2. COAT HANGER KID'S ANTENNA

We must frankly admit that we can't figure out the electronic theory behind the operation of this weird homebrew antenna, but Duane C. Ballew, KFJ0441, Gig Harbor, Wash., reports *reliable* communications up to 30 miles on it, and from a poor 10-20. He suggests it as a "poor man's base station antenna" or a temporary radiator for rich men.

The main physical feature of the antenna is a wooden pole 20 feet long (the lower two feet are for mounting purposes).

As shown in Fig. 2, two 18 foot lengths of wire are run downwards from the top of the pole, being held away from the pole by insulators.

Eighteen feet down from the top, where the wires end, drill 8 or 10 small holes

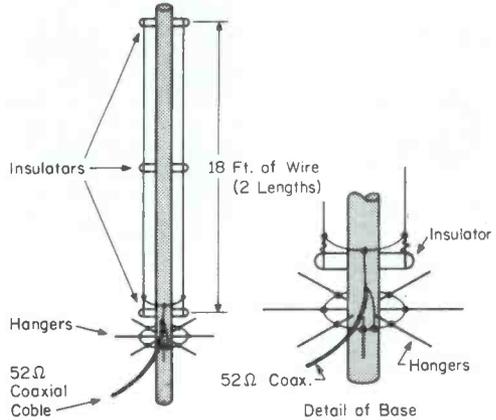


Fig. 2. The COAT HANGER KID'S antenna.

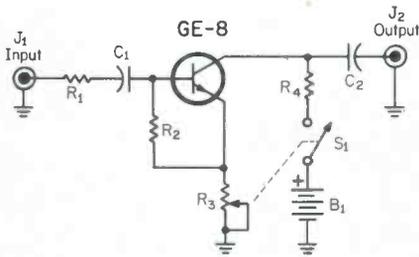
evenly spaced around the pole. Straighten out some coat hangers and fit one snugly into each of the holes which you have drilled.

The 52 ohm coaxial cable which is used to feed the antenna is attached as follows: center conductor soldered to each of the two 18 foot wires; shielded braid connected to all of the coat hangers. Be certain to solder all connections and remember to scrape the paint off the coat hangers before attempting to make any connections on them.

We feel that this antenna will probably develop a very high SWR, and we think that it would be interesting to see how it worked out with the 18 foot wires reduced to 13½ feet—there's a good chance that the SWR would be greatly reduced and the efficiency of the antenna considerably improved.

3. THE BAND BLASTER, Sr., AUDIO PREAMP.

Here's an improved version of the BAND BLASTER, Jr., which appeared in our December, 1963, issue on page 42. Using an inexpensive (\$1.26) GE audio transistor, the circuit can give varying degrees of gain all the way up to 40 DB—which will give you



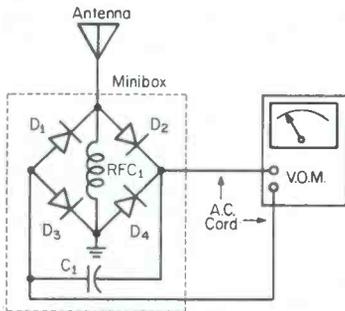
PARTS LIST

- C_{1,2} 1 ufd capacitors
- R₁ 68,000 ohm resistor
- R₂ 150,000 ohm resistor
- R₃/S₁ 10,000 potentiometer with switch (Lafayette VC-28 or equiv.)
- R₄ 100,000 ohm resistor
- J₁/J₂ use the same type connectors now on your mike and rig
- B₁ 22.5 v. battery (RCA V5-084 or equiv.)
- Type GE-8 audio replacement transistor
- Bud CU-3000-A Minibox chassis

a mighty big sound on the channel. Built it in a 1½" by 2" by 2½" Minibox. R₃ varies the gain to the best audio level to suit the occasion. The jack, J₁ and J₂, can be any type needed. Plug the mike into the input, the output goes into the mike connector on the CB rig.

Thanks to Donald Holden, KCJ9228, Charlotte, N.C. for his ideas on this circuit.

4. ULTRA SENSITIVE RF METER

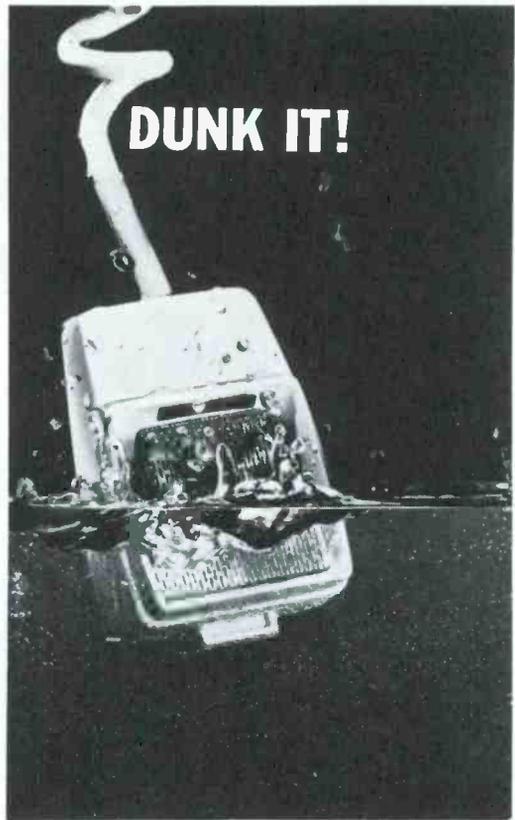


PARTS LIST

- RFC₁ Miller RFC50 choke
- C₁ 240 uufd mica capacitor
- D_{1, 2, 3, 4} 1N34A diodes
- Bud CU-3001-A Minibox chassis
- length AC cord
- V.O.M.
- Antenna

This is an improvement of Ed Noll's "CB REMOTE RF METER" which appeared in our January issue on page 39. This was suggested by a Ham reader, Jerry Williams,

Continued on page 75



CERAMIKES STILL GIVE TOP FLIGHT PERFORMANCE

Anything can happen to a CB mike — and generally does. That's why the Sonotone Ceramike CM-30 is built to take such terrific punishment. Its heart — a rugged ceramic element — is mounted in a sturdy but pliant neoprene suspension, and is immune to shock, vibration, and moisture. Its operation is unaffected by even extreme humidity. Its light, short-travel switch will make over 100,000 clean, sharp contacts.

The CM-30M comes in a "shatter-proof" plastic case with a "push-to-talk" switch at the top and a 6-foot retractable cord.

For long life, ruggedness and outstanding performance, make your next CB mike a Sonotone Ceramike. Model CM-30, \$14.00. CM-30M (with convenient dashboard 'Magnet Mount'), \$16.50. CM-31 (same as CM-30 less switch), \$13.50.

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100 milliwatts.....\$109.50 Net
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1½ watts.....\$129.50 Net



Messenger and Messenger Two

For mobile or base stations. High efficiency design makes full use of maximum allowable legal power. Excellent receiver sensitivity and selectivity. Automatic "squelch" control. 5 crystal controlled channels on the "Messenger" and 10 crystal controlled channels plus a tunable receiver on the "Messenger Two."

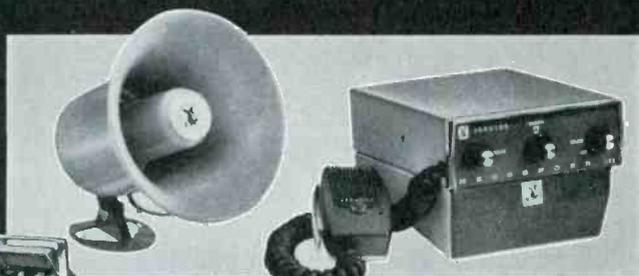
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- Cat. No. 242-127
115 Volts AC/ 6 Volts DC...\$109.95 Net
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115 Volts AC/12 Volts DC...\$109.95 Net

MESSENGER TWO

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M E S S E N G E R III

The "Messenger III" offers everything you ever wanted in a CB transceiver . . . compact size, a husky signal, extreme sensitivity, razor-sharp selectivity — and complete flexibility for base station, mobile, public address, or battery powered portable use! Double conversion receiver — set-and-forget "Volume" and "Squelch" controls — 11 channel coverage — "Tone Alert" Selective Calling System available as accessory.

- Cat. No. 242-150 12 Volts DC Messenger III.....\$189.95 Net
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STOP CITIZENS' BANDITS!

A FEW SIMPLE WAYS TO SAFEGUARD YOUR MOBILE RIG

by PETER DENDIN, 17W6366

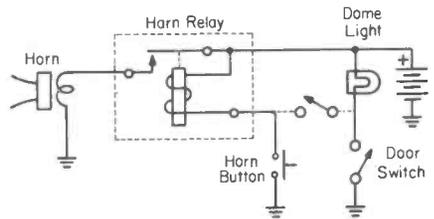
Think about the fact that the snazzy whip you have mounted on your mobile installation is a better-than-Madison-Avenue advertisement that "herein lies a piece of electronic gear worth \$100 to \$250." This may not mean very much to most passerby, however there are an increasing number of mobile rigs being stolen of late, so it's fairly obvious that the advertising antenna does mean something to a certain element of the citizenry.

CB'ers in-the-know have been equipping their mobile units with a number of simple devices and circuits to ward off potential "Citizens Bandits." There are several commercial mobile burglar alarms available, but it's so much cheaper and so simple to homebrew your own that we suggest that you use this approach for your mobile unit. Rolling your own means a few junk-box parts and/or a few things which can be readily picked up at the local electronics emporium or scrounged from a CB buddy.

The basic principle of homebrew circuits is concerned with the fact that your car's horn goes off with a full blast whenever the vehicle is violated by an unauthorized person. Not very many would-be thieves will hang around when something like this occurs, attracting the attention of everybody for several hundred yards. You can install just such a system in your car in less than a half an hour.

ALARM #1

ALARM #1 makes use of the horn relay under the hood, which trips whenever the horn button is pressed (and thence grounded, to close the horn circuit). This relay is usually located right at the horn, in a small black box with three terminals on it. The outside terminal has a heavy wire



going to the horn on it. The other outside terminal will have a thin wire which goes to the horn button. The center terminal is the common one, with a heavy lead going to the battery. If you can't find the horn relay in your car, ask any auto mechanic to point it out to you.

The horn button is the switch which controls the horn. Another switch in your car is the one in the door frame which turns the lights on when the door is opened. We will get this switch to trigger the horn relay.

If you loosen the screws which hold the door switch in place, it's a simple matter to run a wire from this switch to the terminal on the horn relay having the thin wire. The horn will then sound when the car's interior lights go on. You must be certain to connect the wire to the side of the door switch which has the voltage while it is *open*, that is, when the button is pushed *in*.

Obviously you don't want to have the thing go off each and every time the car door is opened, so you can take care of this by installing a toggle switch in the new lead. With this switch, you can simply leave the circuit disconnected when not needed. The switch can be hidden away in any convenient (but weatherproof) place. Inside the hood is a particularly good place.

If you have a four-door car with a different light going on when the rear doors

are open, you can add another wire and switch (DPST). In fact, you can extend your alarm system to any part of the car which has an automatic light—the glove compartment, the trunk, etc. You can put one on the hood with the addition of a small gravity switch which would close when the hood is raised.

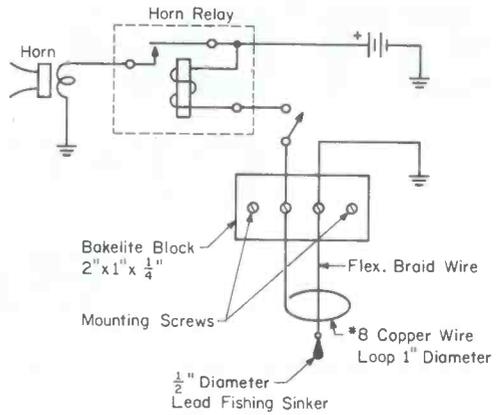
A diagram for ALARM #1 is shown in Fig. 1, with the added circuitry shown in the dotted lines.

It has now come to mind that the horn alarm will cease when the car door (hood, trunk, etc.) is closed by the thief. This is true, but the initial blast of the horn should be enough of a shock to send friend *Citizen Bandit* rapidly heading for parts unknown. Besides, a continuously sounding alarm wouldn't leave you with much of a battery by the time you returned to the vehicle.

ALARM #2

This system also sets off the horn when activated, however the activating mechanism is not any of the switches which are part of the car.

ALARM #2 activates the horn relay by means of a fishing sinker attached to a wire which swings against a wire loop when the car is jarred.



In effect, your car will "holler" whenever it is touched, even slightly, with the horn beeping on and off as long as the weighted pendulum continues to swing and bounce against the copper ring.

The trigger mechanism can be easily located on, or under, the edge of the dashboard or under the hood. Details of the circuit are shown in Fig. 2.

As long as the car is moved or vibrated

Continued on page 75

BASE... OR OFF BASE

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The Model 254X Crystal microphone gives you everything you need at the base station — an on-off push-to-talk and lock switch included. Response: 60-8000 cps. Level: -48 db. List price **\$23.50**

And the mobile Model 355C Ceramic features Turner's exclusive Hand-Ease switch for extra convenience. Response: 80-7000 cps. Level: -54 db. List price **\$12.50**

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MODEL 355C



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including all crystals, mounting brackets, power cords and noise-cancelling microphone

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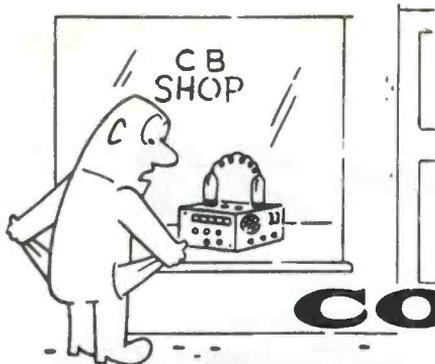
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Subscribe now and receive the BIG surprise May issue.

April 1964 • S9 • 25

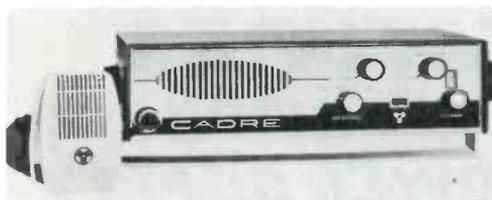


ON THE COUNTERS

Some new products being brought out by Universal Audio Laboratories, 1085 Manhattan Ave., Brooklyn 22, N. Y. One item is a signal attenuator which is used to knock down the strength of strong locals which overload your receiver. The gadget installs in any 52 ohm antenna lead and will drop signals more than 36 db in several steps. Price is less than \$8.00. The company also offers a crystal controlled frequency standard for a single channel, offering a claimed .0009% accuracy. Comes complete (with battery) for any channel for less than \$10. The company has been previously known for their 1964 improved model "Walk-a-Phone" hand held transceiver, which sells for less than \$17. Write to them for details of these and other new products which will interest you.

60642, announced recently that foam "Heliex" cables are now available with corrugated aluminum outer conductors in three popular sizes. These new, low cost, coaxial cables are offered in $\frac{1}{2}$ ", $\frac{3}{8}$ ", and $1\frac{1}{8}$ " diameters with a low loss polyethylene dielectric. All three feature flexibility and handling ease, available for the first time in aluminum cables. Detailed engineering specs are available from Andrew.

Hy-Gain Antenna Products, 8451 N.E. Highway 6, Lincoln, Nebraska, announces the immediate availability of a new 16 page catalogue picturing and describing their line of CB antennas. Included are complete descriptions, electrical and mechanical details, and prices. Copies are free if you write and ask.



New CB rig this month from Cadre Industries of 20 Valley St., Endicott, N. Y. 13761. Cadre calls it their model 510-A and it features a re-designed audio section, power supply and variable tuner circuitry for improved performance, reliability, and service. All channel tuning is locked directly to the 5 channel crystal receiver; noise limiting and suppression are more effective; and circuit drain is reduced. A new type of low impedance ceramic microphone also eliminates background noise and increases desired audio response. The transistorized rig weighs only 5 lbs. Dealer franchises are still available in some areas. Drop a note to Joe Gibbs at Cadre for further details on the 510-A and/or dealer arrangements.

There's a new GIANT CB catalogue just out from Grove Electronics, 4115 W. Belmont Ave., Chicago, Ill. 60641. This thing is an all-encompassing book which covers everything from mikes, rigs, all kinds of antennas, crystals, accessories. It's free for the asking. The price is right gang, and you'll want to have one of these reference books around your shack.

Andrew Corp., P.O. Box 807, Chicago, Ill.



Here's a new rig from GC Electronics, 400 S. Wyman Street, Rockford, Ill. The set is known as the "President VIII," and features 8 crystal positions, an external crystal socket, a tunable receiver (with crystal spotting, an S-meter, PTT, universal power supply, adjustable squelch, 18 tube performance. Further details and price were not announced at press time but are available from the company now.

Free samples for ALL! Yes, that's what you get if you send a card or letter asking for same to Mr. Barry Brown, The Datak Corp., Dept. S9, 63 71st St., Guttenberg, N. J. What do you get? You receive a sample of a wild thing called "Instant Lettering." It's the quickest, easiest way to get professional lettering you've ever seen. Self-adhesive letters printed on a special plastic sheet are just pressed down into position on any equipment, drawing, QSL card, etc. Transfers instantly to just about any surface and looks like printing. The sample sheet contains a whole alphabet and lots of other goodies useful

around the shack. Really looks like something worthwhile for you.



The new G.A.M. Electronics, Inc., Model CBM antenna is designed for CB equipped boats. It is a telescoping 17 foot, half-wave, vertical which can be dropped into horizontal position when not in use. A matching transformer at the base permits adjustment of SWR to less than 1.1:1 on all CB channels, according to G.A.M. Net price is \$49.95. Address of the manufacturer is 138 Lincoln St., Manchester, N. H.

Pace Communications Corp., 520 West 182nd St., Gardena, Calif. 90247, has a dandy all transistor unit available which will operate from 6, 12, 28, 32 VDC or 117 VAC with the appropriate plug-in power pack. Known as the PACE 5000, the set operates with very low battery



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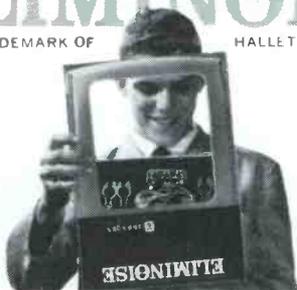


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Exp. Div., 64-14 Woodside Ave., Woodside 77, N. Y.

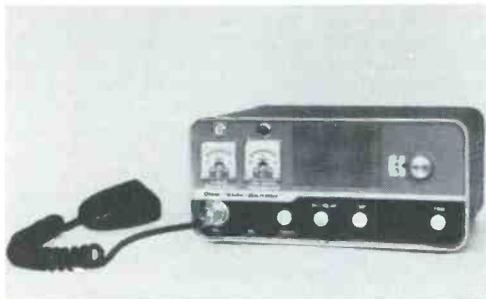
 Stripes of Quality



Anybody out there seen some of the new CB mikes being offered by the American Microphone Company, Dept. S-3, Buchanan, Mich.? Manufacturer says that if their mikes don't perform comparable types they'll refund your money. That's a pretty long limb to walk out onto, but their three new base and mobile mikes apparently can make the grade. Want more details? Write to George Riley, Vice President, and he'll clue you in on what they've got going for themselves at American Microphone.

S9 Lab Reports

OLSON MODEL RA-590 SIDEBANDER



The Olson Model RA-590 *Sidebander* is the result of a new concept for a more effective means of CB communications. The name given to the unit is somewhat of a misnomer in that it leads one to believe that the *Sidebander* embodies a single-sideband system and is one which necessitates special receiving equipment. The Olson *Sidebander* actually is a special type of double-sideband AM transmitter which is compatible with all existing CB receivers. The difference over conventional units is that a reduced carrier is used, but a higher percentage of modulation (up to 200%) provides the same peak power with at least twice as much voice-power, than normally realized, to be transmitted in the sidebands where it is needed for the greatest effectiveness. This results in a signal which carries a real punch, thereby extending the range and reliability of communication.

FREQUENCY SYNTHESIZER

The Model RA-590 has numerous other features, some of which are not found in existing CB units. One feature is the Frequency Synthesizer.

This is a device which utilizes only ten crystals to cover all 23 CB channels. The principle used is one of combining the frequency of one of four different crystals with that of one of six other crystals, the sum of which produces the needed frequency for either transmitter or receiver operation. The necessary crystal combination for each channel may be rapidly selected by means of a rotary switch with the number of only the channel in use illuminated in the selector dial window. A frequency tolerance of .005% is maintained.

OTHER TRANSMITTER FEATURES

Two panel meters are used instead of a single meter. One of them indicates the relative output

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The President VIII

GC Electronics' NEW Globe President VIII is sure to be elected the "chairman communicator of the year"! Plus-features include: Maximum 5 watt input... 5 tube transmitter performance • 8 crystal controlled channels—Receive and Transmit • 23 channel tunable receiver • Frequency "spot" switch • Adjustable squelch control • Illuminated "S" meter/modulation indicator • Built-in Public Address system • Press-to-talk relay operated • Tri-purpose power supply; 117 AC—6 and 12 Volts DC • 18 tube performance!

Send for complete specifications. Write to:

Dept. RDB

GC Electronics Company
400 South Wyman Street • Rockford, Illinois, U.S.A.



April 1964 • S9 • 29

power from the transmitter, the other reads the plate current of the final amplifier. A panel control is provided to tune the final amplifier for maximum efficiency as indicated by the output reading or by the minimum plate current dip indication. A screw-driver adjustment allows the transmitter to be properly matched to antenna loads of between 30 and 75 ohms. These features ensure maximum performance at all times.

Two stages of speech amplification are used ahead of the modulator to furnish plenty of gain for the microphone which is a ceramic type supplied with the unit. The transmitter is actuated by a push-to-talk switch on the mic. A nice feature in this respect is that a red light above the plate-current meter is turned on at the same time. Although the meter itself is enough to indicate when the transmitter is turned on, the light adds a touch of realistic action to the operation.

RECEIVER SECTION

The receiver is a double-conversion super-hetrodyne consisting of an RF stage, 1st and 2nd mixers, two IF stages, detector and AVC, automatic noise limiter, squelch, pentode audio amplifier, phase-inverter and a push-pull output stage (this doubles as the modulator) with a self-contained loudspeaker.

Triodes are used in the RF and mixer stages for low noise with high sensitivity which is rated at .5 microvolts for a 10 db signal-to-noise ratio, but the sensitivity of the unit tested in the S9 lab measured better than this. The first con-

version frequency is 7.5 Mc for which a crystal filter is used between the two mixers to provide improved selectivity. The second conversion RF is 262 Kc which raises the gain and further contributes to the overall selectivity which provides a 7 Kc bandwidth, cutting off quite sharply at both ends of the passband. Good audio quality is thus possible with a minimum of adjacent-channel interference. The 7.5 Mc IF also produces a very high degree (70-90 db) of image rejection of signals from other services, making them virtually non-existent.

A single diode is used for detector and AVC. The noise limiter, for which there is an on-off switch, is a series type with a fixed threshold and it is extremely effective. An adjustable squelch arrangement employs an AVC-operated triode to trigger off the pentode AF stage. During receiving periods, the meter used for indicating the transmitter output power acts as a signal strength indicator, which is calibrated in S-units. The meter is automatically transferred between the two functions when the push-to-talk mic switch is operated. No manual switching of the metering circuits is required.

DELTA TUNING

"Delta-Tuning" of the receiver is another attractive feature of the RA-590. This is an arrangement which allows the receiver to be manually tuned over a range of 3.5 kc either side of the channel center frequency in order that stations slightly off frequency may be tuned in properly.

*You can Hear
and See the
Difference*



**SONAR
FS-23
CITIZENS
BAND RADIO**

**23 FREQUENCY
SYNTHESIZED CRYSTAL
CONTROLLED CHANNELS**

In every field one manufacturer stands out above all others . . . in performance, dependability, engineering know-how, basic components . . . to present the finest product available . . . the Sonar FS-23.

Continuous one control channel switching • Low noise dual purpose transistor supply
• Low noise Nuvistor receiver R. F. stage • Provisions of accessory VOX control and 2-tone squelch • High stability and frequency accuracy • crystal controlled receiver fine tuning • With mike, power supply cables and mobile mounting brackets. **\$29995**

SONAR RADIO CORP.

73 Wortman Avenue, Brooklyn 7, N.Y.

Please send me information and data on the Model FS-23.

Name _____

Address _____

City _____ State _____ Dept. **316**

For the CB'er who wishes to go all out, the Olson Model RA-590 Sidebander is a most effective and convenient piece of gear to have on hand. It is available from Olson Electronics, Inc., 260 S. Forge St., Akron, Ohio.

THE ATKO MINI-KEYER

The Atko Mimi-Keyer is an automatic machine which transmits audible code from a perforated tape for instruction and practice in the reception and transmission of code signals.

The Mini-Keyer is a complete unit which, besides the automatic keying mechanism, includes a tone oscillator, loudspeaker, volume and pitch controls. A phone jack also is included from which up to 25 pairs of headphones, connected in parallel, may be operated. An external speaker may be also driven from the phone jack.

The Mini-Keyer is supplied with one 16 word-per-minute capstan. Other standard capstans are available for code speeds of 12, 14, 18, 20, 22, 25 and 30 w.p.m. In-between speeds are obtained by the use of tapes with double or triple spaced characters. When these tapes are used, the train of characters will pass at a word-per-minute rate of one-half or one-third of the speed marked on the capstan in use. For instance; when a 12 w.p.m. capstan is used, the rate with a double-spaced tape will be $12 \div 2$ or 6 w.p.m. For a triple-spaced tape it will be $12 \div 3$ or 4 w.p.m. Normal spacing, of course, will provide 12 w.p.m.

Putting the Mini-Keyer through its paces proved it to be an excellent device. Accurate and stable code speed, clean keying and tonal quality, convenience of setup and adjustment along with fine overall performance was experienced. No tearing, entangling, jumping, damage or jamming of tapes was encountered, nor was any erratic operation found.

The size of the unit is $7" \times 5\frac{1}{4}" \times 3\frac{3}{4}"$ and the weight is $3\frac{3}{4}$ pounds. The Atko Mini-Keyer is priced at \$49.50 complete with one 16 w.p.m. capstan, three reels of practice tape and an instruction manual. Additional capstans for other code speeds are \$2.00 each as are additional reels of tape. The unit is produced by Automatic Telegraph Keyer Corporation, 33 West 42nd Street, New York 36, N. Y.



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Outdistance Competition

The team that received 2 U. S. Naval Ordnance Development Awards for fiberglass research now offer these new and novel fiberglass CB antennas

CB 50 AMAZER, a halfwave folded centered 8' fiberglass whip \$10.95

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CB 88 OCTOPUS, a double half wave fiberglass base antenna . . . \$32.50

Business band antennas also available

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Citizen Band Class "D" Crystals

CITIZEN BAND CLASS "D" CRYSTALS

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

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All 23 megacycle frequencies in stock: 26.965, 26.973, 26.985, 27.005, 27.015, 27.025, 27.035, 27.033, 27.063, 27.073, 27.083, 27.105, 27.115, 27.125, 27.135, 27.155, 27.165, 27.175, 27.185, 27.205, 27.215, 27.225, 27.253.

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 — 30 to 40 MC \$4.10 — 40 MC to 65 MC \$4.50 — 65 MC to 100 MC \$6.00 ea.

FUNDAMENTAL FREQ. SEALED From 1601 KC to 2000 KC \$5.00; from 2001 KC to 2500 KC \$4.00; 2501 KC to 5000 KC \$3.50; 5001 KC to 7000 KC \$3.90; 7001 KC to 10,000 KC \$3.25.

RADIO CONTROL Specify frequency. .05 pins spaced $\frac{1}{2}$ " (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 $\frac{1}{2}$ " Pin diameter .093	MC-7 holders Pin spacing $\frac{3}{4}$ " Pin diameter 1/25
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MADE TO ORDER CRYSTALS . . . Specify holder wanted

1001 KC to 1600 KC: .005% tolerance	\$4.50 ea.
1601 KC to 2000 KC: .005% tolerance	\$3.55 ea.
2001 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) \$1.25 ea.

Pin spacing $\frac{1}{2}$ " 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 HC13/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.

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WAS \$99.95
NOW **\$80.00**

**GWW-11A 5-WATT
CB TRANSCEIVER**

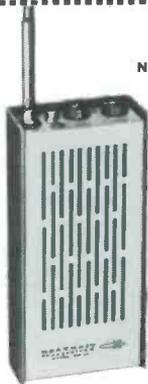
Here is your chance to obtain this coast-to-coast CB favorite at extra savings! Fully assembled, tested and ready to use, the GWW-11A features 3 crystal-controlled transmit channels, crystal-controlled or variable receiver tuning, built-in squelch & automatic noise limiter, tuning meter, and handy push-to-talk microphone. Neat, compact, low-profile styling in two-tone mocha & beige color. Complete with crystals for one channel (specify). Hurry, order now . . . quantities limited!
GWW-11A (120 V. AC) . . . 13 lbs. . . .
Was \$99.95 Now only \$80.00



WAS \$89.95
NOW **\$70.00**

**GWW-22 5-WATT
CB TRANSCEIVER**

Choose either AC or DC models in this superb CB series at \$19.95 savings! Quality engineered throughout for finest 2-way radio communications. Features 5 crystal-controlled transmit & receive channels, superhet. receiver with RF stage, Built-in squelch & automatic noise limiter, and push-to-talk microphone. Attractive two-tone brown color styling. Complete with crystals for one channel (specify).
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Was \$89.95 Now only \$70.00
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WAS \$71.95
NOW **\$55.00** **GWW-21
"WALKIE-TALKIE"**

Fully assembled, tested, ready to use! No license, tests or age limit requirements! Deluxe 9-transistor circuit, superhet. receiver with RF stage, adjustable squelch, automatic noise limiter and built-in whip antenna. Operates up to 75 hours on a single 9-volt battery. Two-tone green color. Crystals included (specify channel). Order a pair for extra savings.

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Was \$71.95 Now only \$55.00
GWW-21-2 (pair) . . . 6 lbs. . . .
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**GWW-12 "BASIC"
5-WATT CB TRANSCEIVER**

No frills, no gimmicks . . . just solid one-channel CB two-way radio! Perfect for mobile or fixed station installations. Crystal-controlled transmitter & receiver. Built-in squelch & automatic noise limiter. Convenient push-to-talk mike. Two-tone brown color styling. Crystal included (specify). Order these best-buy CB units now . . . quantities limited!
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- Enclosed is \$_____ plus postage. Send model(s)_____
- Please send Free 1964 Heathkit catalog.

The above items will continue to be available in kit form at the following prices: GW-11A (120 V. AC) \$69.95; GW-11D (6 or 12 V. DC) \$69.95; GW-22A (120 V. AC) \$59.95; GW-22D (6 or 12 V. DC) \$64.95; GW-12 (AC only) \$39.95; GW-12D (AC & DC) \$44.95; GW-21 \$44.95; GW-21-2 (pair) \$84.95.

HEATH COMPANY
 Benton Harbor, Michigan 49023

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All prices net FOB Benton Harbor, Michigan and apply to United States and Possessions only. All prices and specifications subject to change without notice. Dealer and export prices slightly higher.

GX-128

PART 15

KORNER

by DEAN DETTON, NORTHERN 17

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

A letter from Dave Reed, CENTRAL 84, Raceland, Ky., comes up with a good idea for increasing the range of a P-15 base station. Dave suggests that you utilize the tunable receiver portion of a regular 5 watt CB rig for listening, transmitting with the transmitter portion of a P-15 transceiver. The standard CB antennas are more efficient than the 5-foot-maximum ones which are allowed for P-15 transmitting.

The "100 Mills" is a new P-15 club which has been formed in Bristol, Tenn., by ATLANTIC stations 990, 1015, 1037, 1038, 1039, and 1040. President of the club, Dick Richards, ATLANTIC 1037, says he gets a laugh out of those who have knocked P-15 as being good for only a few miles because he has worked (on skip, natch) Hawaii, Mexico, Alaska, and Canada—and he has QSL's to boot! If you live in the Bristol area and are interested in joining the "100 Mills," contact Dick at Rt. 1, Box 198, Bristol, Tenn.

CENTRAL 1430, Glenn Speck, Coffeyville, Kansas, is looking for P-15 skeds on Channels 6 and 10. Look for him on 6 from 3:30 P.M. to 10 P.M. Monday through Thursday, and from 3:30 P.M. to 3 A.M.

Friday and Saturday. His 10-20 is 710 East 6th St.

We're always looking for operating skeds and photos of P-15 stations—also, please let us know about your skip contacts. This summer there should be some wild P-15 band openings.

First comment on the "PART 15 CALLBOOK/HANDBOOK" has been received from Beecher V. Ruh, KHD3625, of Chicago, Ill. Beecher says, "I think it's GREAT!" Do you have your copy yet? Really an invaluable aid around any P-15 shack—and it's a pretty interesting book for anyone else who is interested in learning more about P-15, legal hobby CB'ing.

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



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:

- Fill in the application below, or facsimile if you don't want to cut your copy of S9.
- 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.

Name: _____ CB Call: _____

Address: _____

City: _____ Zone: _____ State: _____

Part 15 Channel: _____ Type of unit: _____

No. of units: _____ Date: _____

I enclose 50¢ for the 1964 Part 15
Callbook/Handbook.

Signature: _____

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I Full 5 Watts Power II 100% MODULATION III Built-in Three-way Power Supply IV Illuminated "S" and Modulation Meter V Double conversion superheterodyne receiver VI Push-to-talk ceramic mike VII Instant switching for 12 transmit channels VIII All channel tuning IX Unique "Spot Quick" control.

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Accessories
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You get: DX'er Transceiver, Push-to-Talk Mike, AC Cord, Crystal for Channel 9, Hy-Gain VP-II Antenna, 50' RG-58/U, Two PL-259 Plugs, Two UG-176 Adapters. Wt. 27 lbs. ZZS029 Base \$139.95 — \$7.00 per mo.
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- 3. Mobile Station Package — Save \$6.87**
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XM49-405

Since it has become known that I am writing a column about Canadians, material has started to arrive, slowly of course, but *starting*.

A considerable number of enquiries from the States re problems they might have in Canada with CB equipment etc. has been arriving in my letter box. Let me first say that unfortunately there is *no* reciprocal agreement between our two countries whereby we may operate our units while traveling in each others country. It is not unusual for Americans when entering Canada to have their sets sealed by the Customs Officials. However this is not always done and it is left up to the operators to govern themselves accordingly when in this country. If any Americans (CB'ers) are intending to visit Canada and have any problems, send them to me and I will try and render any assistance I can. Also I will notify the various clubs in the areas that you may be visiting.

From the Annapolis Valley comes news of the formation of the 1st Nova Scotia Citizens Band Club on the 8th of January.

The executive consists of President XM63-043 Phil H. Nicols, Vice-President XM63-400 Clary Church, Secretary-Treasurer XM63-023 Bruce Campbell. They have approximately 20 members and have great hopes of increasing their membership. They monitor channel 11. Mailing address is % Phil Nicols, Aylesford, Nova Scotia. Best of luck. . . .

From Francois Goyer of Drummondville, Quebec I received news of the Montreal activities. The Association Radio des Iles is one of the most up-to-date and promising CB clubs in Quebec. At present they monitor channel 17 and have three ambulances standing by night and day, ready to serve any emergency.

The President is J. N. E. Belanger, Vice-Presidents Jacques Ste Marie and Bernard Perrault are in charge of Social Activities. The Secretary, Amédee Dupont handles finances and public relations. Raymond Fyfe is in charge of Technical

by JOHN BURNUP, XM49-405

926B CUMMINGS AVE.
OTTAWA, ONT., CANADA



**CHANNEL
18**

Services and Special Services. Gaston Lachance, handles recruiting of members. Paul Huszagh is in charge of publicity.

They will shortly start publication of a semi-annual revue called "A.R.D.I." This is double talk in French. Actually "hardi" means, "intrepid, fearless." In this case ARDI will stand for "Association Radio Des Iles."



Harris Walsh, President of Saskatchewan Citizen Radio Club.

Into Ontario and the Ottawa Valley and I find that the Golden Triangle (GRS) Radio Club have just elected new officers for 1964. XM49-054 G. F. (Bud) Barker is the new President. He has stated that plans are being drawn up to make his club the best known in Canada. Other officers are Vice-President XM49-304, Art Grierson; Secretary, XM49-401 Sam Baker; Treasurer, XM49-409, Doug. Legere, and executive members XM49-565 Ed Skulsky and XM49-545 Don Buffam. Committees have been formed to handle any activity that CB'ers may be interested in. The club paper

The Golden Triangel Beam is in its second volume of publication. Clubs wishing copies should write to the Editor, 926 B Cummings Ave., Ottawa. We look for great things from Canada's capital.

In Toronto the West Toronto CB Radio Group prepares for another good year. Their President XM41-139 Ron Moriarty, Vice-President XM41-1674 Gord West, Secretary XM41-1808 Michelle Moriarty (also an S9 reporter), XM41-2485 Carole Bouckley and Executive member XM41-2185 Phil Merchant are putting on a great drive for increased membership.

During December they put on a charity drive and collected close to a hundred dollars worth of canned goods and merchandise. Congratulations to XM41-832 Bernice Smider and XM41-1700 Dave Massam.

They try to have a guest speaker for each of their meetings. Keep up the good work.

Also from the same thriving city the Metro CB Club has also had their elections. President XM41-240 Bob Watson, Vice-Presidents XM41-1484 Ray Van Winckel and XM41-1595 Gerry Hunter. Secretary is XM41-339 Judson Carey, Treasurer XM41-039 Jack Greenberg and News Director XM41-085 Jim De Zorzi.

Their club bulletin called "Modulation," edited by Jim De Zorzi, 61 Dalrymple Drive, Toronto 9, Ontario appears to have a great future if plans go as planned.

The Southwestern General Radio has begun 1964 with its usual vigor, XM44-1000 Gerald Inch is their President. Due to the large area they cover, they have six Vice-Presidents to cover all the areas.

During the past year they have been very active including two searches for missing persons. I am hoping to get a good full report from this club for the next issue. This club can be an excellent guide to other clubs that are formed or in the process of forming.

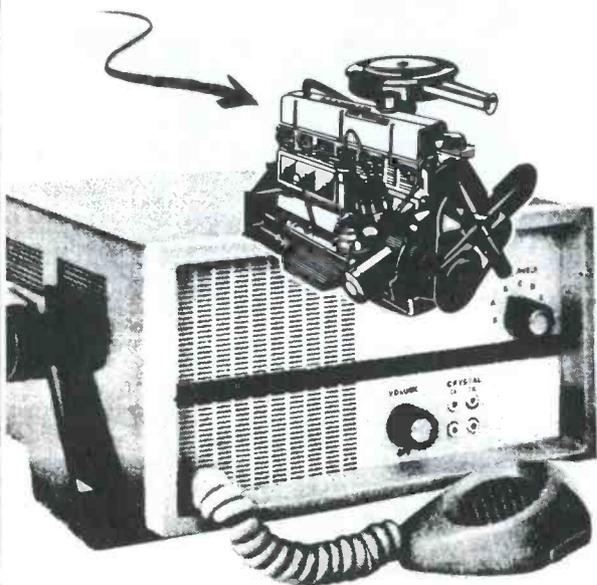
All the way out to the Prairies and we have The Saskatchewan Citizen Radio Club. From their Secretary XM34-161 Esther Walsh 218-27th St. West Saskatoon, she writes that the club is progressing well, but due to winter and the snow, it seems they spend more time shovelling than talking. Activity will increase as spring approaches, and they recruit more members.

They now publish a club paper called "Channelled 6 News" and hope to be able to increase its circulation outside of Saskatoon. They have promised more news in the future.

Well that seems to sum up all the news for now. Winnipeg, Regina, Calgary, Edmonton, Vancouver and Victoria, I guess, just don't seem to report any club news. Let's hear from you, some of the Eastern CB'ers will be going out your way in the summer and would like to get to know you better. Canada's greatest CB magazine S9 is the best place to get the news.



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CB CASEBOOK

by **LEE AURICK, KCD5514**
MT. PLEASANT RD. RFD 1
COLUMBIA, PA.



One interesting thing about conducting a column such as this; you usually get to meet so many new and interesting people. It is very seldom that someone whom your reporter has known for some time is presented here as a subject. This month we are going to enjoy a brief visit with a couple of nice people whom we've counted as friends for several years, though their entry into CB radio occurred just a few months ago. Henry and Miriam Lenhart are Superintendent and Chief Engineer, respectively, of the Marietta Gravity Water Company, Marietta, Penna. One could almost say they are the Marietta Gravity Water Company. The two principal employees, and the owners of almost all of the operating equipment, together they have developed one of the most flexible and resourceful water supplies in the state.

As the name of the company implies, the water, at least originally, and now only in part, was obtained from watersheds and reservoirs located on high ground on the south side of the Susquehanna River, and transported by means of submarine pipelines to the north shore where it was routed to its many destinations. Starting in 1892, two reservoirs were constructed to contain the outpouring of 52 springs on a watershed that comprises 960 acres of woodland. Activated in 1896, the original system was designed to meet the needs of the communities served to the sum of 90,000 gallons a day. Today, the load on a peak day approaches 900,000 gallons of water. This ten-time increase has required good planning, resourcefulness, hard work, and not a little courage from the two principals involved.

This past summer, leaks developed in the remaining submarine line in use across the river. "This ten-inch line is the only link we have with our two reservoirs on the south side of the river," Henry told your reporter. "We found that we were losing many thousands of gallons of water which were pouring right into the Susquehanna. To find a leak in a line such as this is not a simple problem, though the procedure is well established. Basically, the line must be isolated from the pumping stations and then filled with compressed air. At this point it is necessary for divers to travel along the pipe to locate the air leaks. These steps are almost routine, but real danger exists until we can balance the hydraulic pressures on both sides of the river, and equate this with the current demand being made upon the entire system."

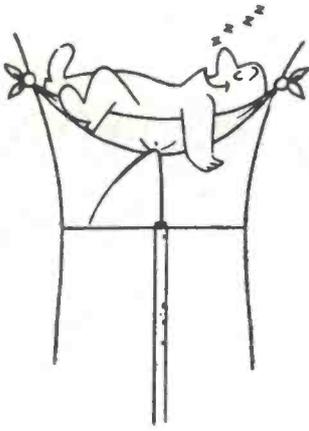
"It was obvious that we needed some better way to coordinate our efforts on each side of the river than the old method of having a man make the twelve and one-half mile trip between our river sites. We sent out a call for help to the Lancaster County Sheriff's Office, and Sheriff Meyers responded by sending two walkie-talkie units for our use. These did an excellent job. In November, when the line again developed a few leaks, we knew what to do. This time we borrowed two units from the Marietta Pioneer Fire Company."

"However, our success with these low-power units led to our considering just how much more effectively we could function if we integrated CB radio into the Water Company on a full-time basis. This we set about to do, and immediately applied to the FCC for a license. Because of the emergency nature of our use, the FCC went all out when they learned that Marietta Air Force Base and 3500 homes in the area depend upon us for water supply. In just a matter of days we had our call letters, KCD6018. The Commission is really to be complimented on the manner in which they responded to this urgent public need."

"We now have three rigs, and operate these as a base station and two mobile stations. A recent addition has been three walkie-talkies of our own that now make us completely independent as far as communications are concerned. Since installing our CB gear, we have never had a broken valve or other problem as a result of too much pressure during tests or change-over operations."

"There have been dozens of instances where radio has been helpful to us in just the few months that we have had our CB sets. Nothing vital, but each incident has demonstrated to us the importance of the CB service to our work. I keep asking myself, 'How did we ever get along without this before?' The answer, of course, is that we just didn't know how much we were missing in the way of efficiency and safety. We have about four major crisis every year, and for the first time I feel really prepared for what ever might happen. I've stopped worrying about how we'll handle any given situation. Our CB radios work well, and we know we can depend upon them."

S9



ANTENNAS

by LEN BUCKWALTER, KBA4480

METERING A MOBILE

Like any good CBER, our friend in the photo is trying to squeeze the last half-watt out of his mobile antenna. And in the process, he's committing at least five errors in handling that field-strength meter. Can you spot them? Two are tricky—like the open car door, which could distort the reading, or the half-up windshield wipers that may juggle the pattern. Those trees positioned some three or four feet from the whip might also interfere with the tune-up. But the whooping errors are: holding the meter too close and ignoring polarization.



The field-strength meter, as most CBERs already know, is a gem for checking direct radiation from a mobile whip. Yet the gadget easily gives all sorts of misleading indications when not handled properly. Here are some items to watch out for. They can help make the instrument far more valuable than any number of S-meter reports on transmitter tuning, whip length or other factors affecting mobile antenna performance.

1. **Distance.** Holding the meter too close to the whip is probably the biggest cause of error. It arises from the fact that the antenna radiates *two* radio fields; magnetic and electric. The magnetic field goes out a few piddling feet. It's the electric field that reaches out to the other station. The meter, however, can't tell the difference and might read some strange combination of the two fields. The solution is simple—just move out at least 17 feet (about one big-car

length) from the whip before taking any readings. This distance is about one wavelength on CB frequencies, and cuts out the intruding magnetic field.

The 17-foot distance often makes tuning a two-man job; one tunes the rig, the other watches the result on the meter. But it's frequently possible to prop up the meter away from the car and still observe the pin while adjusting the equipment.

2. **Polarization.** Mobile whips, which point straight up, are vertically polarized. The pickup wire or antenna whip on the field-strength meter should similarly point skyward. Otherwise, cross-polarization of the signal could ruin accuracy.

3. **Meter's Antenna Length.** Many instruction manuals for field-strength meters recommend a longer antenna or pickup wire if the instrument is not sensitive enough. This is fine, but carefully avoid a length that matches that of the mobile whip. You're liable to create a beam antenna; the mobile whip and pickup wire become part of the same antenna system and interact with each other. The pickup wire should be as short as possible.

4. **Relative Readings.** Don't be misled by big increases in field-strength readings as you tune. Most meters measure voltage induced in the pickup wire. This value rises far faster than antenna power. It can also cause the meter pin to swing suddenly against the stop and possibly bend. Try to use the lowest sensitivity by shortening the pickup wire, or reducing the meter control, if one is provided.

5. **Use Standard Positions.** The field-strength meter is primarily for tune-up, but can also give a fast check on antenna output at a later date. Always park the car and place the meter in the same positions during each checkout. The meter will read approximately the same each time if rig and antenna system are operating properly. This, of course, could not be done by our friend in the photo, who is hand-holding the meter.

Continued on page 76

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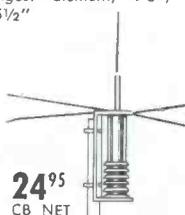
39⁹⁵
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Half wave gives more gain than 1/4 wave without bulky transformers. SPECIFICATIONS: VSWR (50 ohm cable) 1.3:1 • Bandwidth (under 2.1 VSWR) + 4% • 750 watts max. power input • 50 ohm nominal input imp. • Intl. feedline RG-8A/U • Termination SO. 239

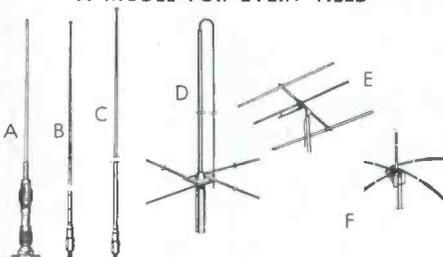
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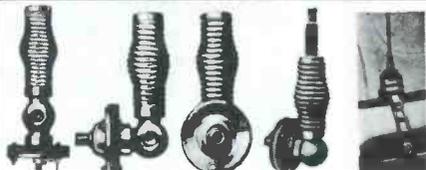


24⁹⁵
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- B CB5-311 mounts on top, fender or trunk lid. 52 ohms, 60 watts, RG 58 or equiv., 1.5 mc min., 1:1 to 1 at resonant frequency. For auto, plane or boat. **5²⁵**
- C FG-103 universal 103" fiberglass whip with 3/8" x 24 thread base fitting. **6⁹⁵**
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- D SR-600-11 base station monopole for 11 meters. Radiating and ground plane elements grounded to reduce lightning damage. Write for specs. **24⁵⁰**
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232X	Heavy Duty—D'ble Tapered Spring—Swivel Base	9.85
232XC	Heavy Duty—D'ble Tapered Spring—Coax. Conn.	9.85
232XSSC	Heavy Duty—D'ble Tapered Spring—Spec. Stainless — Coax. Conn.	14.95
232XSS	Heavy Duty—D'ble Tapered Spring—Spec. Stainless	14.95
232XX	Extra Heavy Duty Spring	10.85
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232XXSS	Extra Heavy Duty Spring—D'ble Tapered—Spec. Stainless	15.95
232XXSSC	Extra Heavy Duty Spring—D'ble Tapered—Spec. Stainless—Coax. Conn.	15.95
445	Universal Mount—Threaded, 3/8" 24—Chain Mount	7.95

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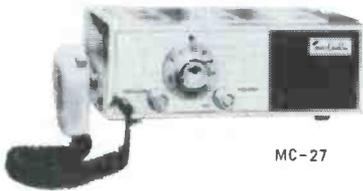
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- Universal power supply offering 6 and 12 volt DC and 117 Volt AC... all in one unit
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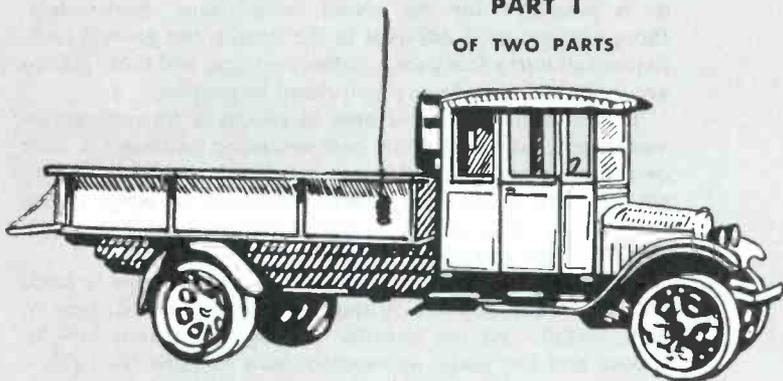
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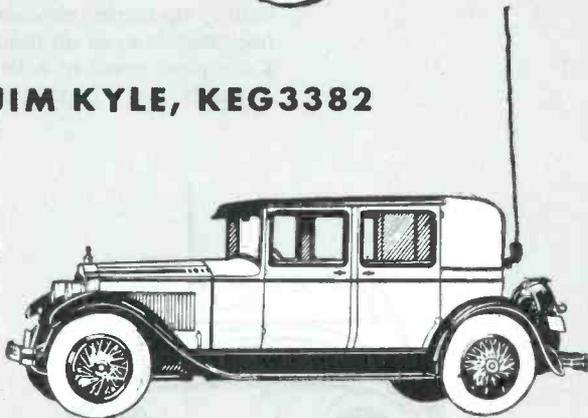
**SPECIAL
BONUS 16 PAGE SECTION**

**CB mobile
from **A** to **Z****

**PART I
OF TWO PARTS**



BY JIM KYLE, KEG3382



The subject of "mobile installation" is one upon which there's no lack of information—and at the same time there's a severe lack of *usable* information for any specific job.

This comes about because every installation is a separate thing in itself. It's easy for anyone to describe just how he installed a *Superspritz-1000* radio in a 1964 *Rambliant-400* station wagon; it's impossible to go into the same detail on

how to put *any* radio into *any* mobile. Some vehicles have no room under the dash to accept even a remote-control box. Others have no place except under the dash to put the entire rig. And so forth, ad infinitum.

And what this all means is that a good installation is something of a work of art, rather than of mere technical skill. The fellow doing the installing must take into consideration every factor involved, then make the best possible compromise between them all.

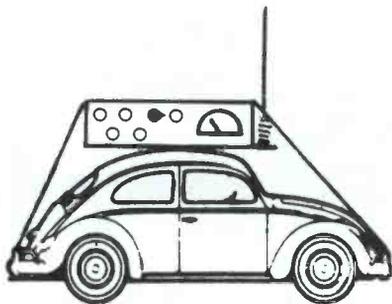
But before he can take all the factors into consideration, he has to know just what all these factors are. If he's been doing mobile installations for several years, he probably doesn't even stop to check them off. But if he's tackling the job for the first time, as most CB'ers are, then he may find himself in a bit of a fog.

So this is aimed primarily at dispelling that fog, by providing a set of check-lists of the various factors to take into consideration, and then giving detailed instructions (insofar as is possible) for the actual installations. Fortunately, though every job is different in the details, the general techniques fall into a few clearly defined groups, and these groups are described here in as much detail as possible.

This month we discuss how to choose a transceiver for mobile use, how to find the best mounting location for your own vehicle and needs, how to install the rig there, how to get power to it and from it, how to choose the best antenna for your needs, and how to install the antenna. This much alone will get you on the air.

The second part, to appear next month, tells how to trace out and minimize noise in the finished installation, how to pick, install, and use popular mobile accessories, how to choose and use audio accessories, how to keep the vehicle battery up during extended radio use, and how to meet the responsibilities of all mobile operators. Together, they form a complete guide to mobile installation and use.

Ready? Let's dive in right at the beginning.

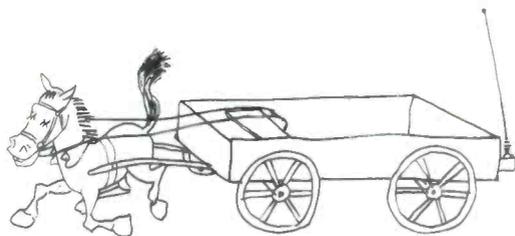


"The rig must fit into the vehicle"

Picking Your Mobile Transceiver

The choice of a mobile transceiver is a bit more complicated than that of a fixed-station unit, since many more factors are involved. Probably the worst way in the world to

Battery? What Battery?



make the choice is to decide "My buddy Hank uses a *Wingding* and he really gets out; guess I'll get a *Wingding* too."² The *Wingding* may be the best possible unit for Hank, with his 1958 ex-police-car *Ford* and its heavy-duty power system. It may also be the worst possible unit for you with your little *Isetta*, and its flea-power electrical components.

Unless you *are* Hank, don't follow his choice blindly. If you want to get full satisfaction from your mobile installation, make your decisions for yourself, based on your own individual needs.

These individual needs boil down to two general classes, the requirements imposed by your vehicle and those imposed by your own desires. We've already cited a case of vehicle-requirement differences, in which a high-power-consumption transceiver was no problem at all to Hank but would be murder to an *Isetta* owner. This isn't the only vehicle requirement, though.

The major requirements imposed by the vehicle itself are two in number. One, of course, is the power requirement. No matter how good a transceiver is, if it requires 12 volts to run and you have a 6-volt car it's not for you. And if it requires 12 volts at 20 amps, and you have a 12-volt car which can't stand more than 5 amps drain from the battery for the radio, it's *still* not for you.

The other vehicle requirement is involved with the space available for mounting the rig. A good example of this is the 1956 *Plymouth*; this vehicle has virtually no place at all available for the mounting of a transceiver, since the conventional under-dash location is taken up with an air-vent control. This vehicle requirement alone rules out more than two-thirds of the most popular transceivers for use in this vehicle!

To examine these two requirements in a bit more detail, let's look first at the power system. If your vehicle is equipped with an *alternator*, as many late-model autos are, you have virtually no power limitation. If it uses the more conventional *generator*, examine the battery specifications in the owner's manual (or at a friendly service station). If the original-equipment battery is a heavy-duty model, you needn't worry about the radio taking too much power. If, however, it is a light-duty battery it would probably be best to stick up a mental red flag on the subject of input power requirements, and in making the final transceiver choice concentrate on those which take the fewest amps from the battery.

Tiny foreign cars are particularly critical about the power limitation. These small vehicles are small all over, and their batteries and generators usually don't have the "oomph" to

run a big radio. For these, as well as domestic models with light duty batteries, it might be well to keep in mind that fully transistorized transceivers take far less power from the car than the older tube-type radios—especially while receiving, which is what you'll be doing most of the time!

Now for the space problem. In recent years, auto designers have appeared to compete with each other in doing away with all possible mounting positions for radio equipment. The wide, spacious under-dash surface which was the virtual standard location in days of old virtually disappeared for several years. Some of the 1964 models have restored this convenience, but others have not.

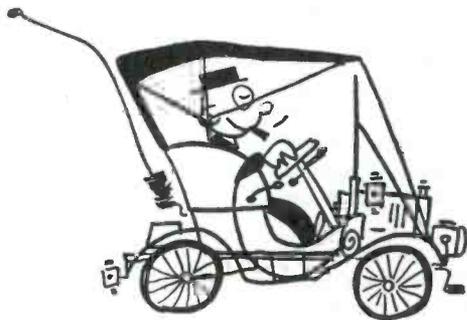
Even if your vehicle does have this location available for radio mounting, you must still take care to pick a rig which will fit the available space. This means that you should measure the width of the available mounting location, as well as the depth back to the heater or firewall, and then reject all transceivers which are wider or deeper.

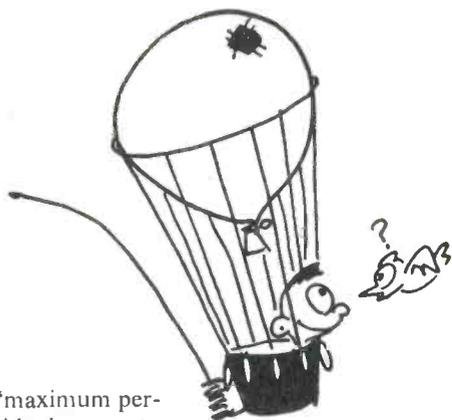
If this convenient space isn't available, then you must find some space which is. Alternate locations sometimes used include *inside* the glove compartment, underneath the front seat, alongside the steering column, and on the floor in the front-seat passenger's footroom area. Whatever location you find, and it might not be a bad idea to find as many as possible in the vehicle, be sure you have all dimensions of the space. This includes not only width and depth, but also height.

When you know the approximate limits of input power requirements and available space, you have the major requirements imposed by the vehicle. Now let's see about the requirements imposed by the operator's desires.

These can be summed up in two broad classes. One is exceptionally broad; we call it "versatility." This one includes most of the things usually found as sales features on any rig. Do you want single-channel operation, or must you be able to use any of the 23 available channels at the flick of a switch? Do you want your receiver to be fixed on the same channel as the transmitter always, or do you want to be able to tune across the band? These and all similar questions determine the amount of versatility you require in a transceiver.

The other class of operator requirements can be summed up in the term "performance." While we all want maximum





performance from our rigs, the definition of "maximum performance" will vary from individual to individual.

Consider, for instance, a salesman in the wide-open mid-west prairies who covers a territory some 50 miles in radius from his home and who wants to maintain reliable home-to-mobile communications. He's going to need the absolute maximum possible communication power, and he would do well to consider the use of sideband transceivers at each end since these offer the maximum talk-power available within the 5-watt limitation.

On the other hand, a businessman equipping his delivery trucks with radio gear to be used primarily for dispatching the trucks within a 5-mile radius doesn't have an absolute need for that maximum talk-power of SSB and can easily get by with a good transceiver of the conventional AM variety.

If most of the work is to be in an even smaller radius, the full 5-watt legal power might not even be necessary—and 1-watt portable units, permanently installed as mobiles, would take far less power from the vehicle battery.

So far we've been talking only about transmitter talk-power, but the same type of considerations apply to the receiver side as well. In wide-open country where little interference is present, a single-conversion receiver is usually perfectly adequate. In metropolitan areas, more selectivity is needed, and either double or triple conversion or the super-selective filter-type receivers become especially desirable.

These aren't the only considerations, but they give you an idea of the approach from which the choice of a transceiver must be considered. When you have finally determined all the limitations imposed by both the vehicle in which the unit will be mounted, and by your own operating requirements, then—and not before—are you ready to start poring over manufacturers' data sheets listing specifications of the various transceivers available.

Some transceivers will be ruled out immediately, of course, by power limitations. Others will be ruled out by their space requirements in many instances. Your own operating requirements will rule out still more (if you must have 8-channel switching, all single-channel rigs are automatically out, etc.). But even after all this elimination, you'll probably still have quite a few left to choose among.

A consideration not yet mentioned is that of cost. Most of us think carefully when parting with money, and cost is a definite consideration by all means. However, an unusable transceiver is no bargain at all no matter how little it costs, and that's why we have ignored this factor until now. At this point, compare price tags and you may trim one or two more off your list of possible choices.

When this is complete, the rest is up to you. If you've done all this preliminary work with care, you know that any unit still on the list will be capable of being installed in your vehicle, will meet your operating requirements, and won't break your pocketbook. From here on, you can make the final choice on such relatively unimportant items as case styling, color of knobs, what the rest of the gang is using, and the like.

The Installation Itself

The first step in making the actual installation is, of course, to select the spot in the vehicle at which the radio is to be mounted.

Though this was done to some extent at least during the preliminary stages of choosing the transceiver, it's easily possible that the unit you finally choose will have space requirements such that several mounting locations are possible. Of these, you will want to pick the *one* best suited to your needs.

At this point, the primary consideration is that of your own convenience. If you're going to use a single-channel transceiver with fixed tuning, such as one primarily for dispatch purposes, then it doesn't necessarily have to be placed near the driver's seat. For these, the floor just behind the driver's seat is often a good location, as it doesn't obstruct the driver in any way yet still permits easy turn-on and turn-off by reaching around the side of the seat.

On the other hand, if you're going to be doing quite a bit of channel-switching, or receiver tuning, while in motion, then you'll need a location for the transceiver as close as possible to the steering wheel, where your attention will be diverted from traffic the least possible amount by your radio operation.

Those few available remote-control units may, of course,



be mounted out of the way—but the same considerations apply to the location of the “control head” which does all the controlling.

The electrical requirements of the installation location may seem so obvious as to not merit mention—but far too many otherwise good installations are made clumsy by the necessity of cabling power and antenna connections across a wide expanse of open space to reach the transceiver! Only a small amount of foresight is needed to avoid this problem; just be certain the side of the rig which contains the connectors faces into an area where the cables will be easy to route, and you're home free.

With a mounting spot picked, you're at the point where you are going to have to proceed somewhat on your own, because this is where every job begins to become different. The differences are due to the vehicles, to the transceivers, and to the operators involved, but fortunately there are also quite a few similarities.

For instance, most rigs mount in place in one of three ways. They either bolt right into place on the vehicle metal-work, they fit into a hanger which in turn is bolted to the vehicle, or they fit into a special frame which in turn fits a bolted-on hanger.

If the transceiver itself is to bolt to the vehicle, the starting point is to remove the portion of the transceiver case which attaches to the vehicle, fit it into position in the mobile, and mark locations of the bolt holes. The holes are then drilled to accept the proper size bolts (if none are specified, use aircraft-grade 10/32 by $\frac{3}{8}$ -inch oval-heads, with matching nuts and lock washers. The lock washers are important—you don't want the rig vibrating loose and falling on your feet in the midst of freeway traffic!). Insert the bolts from inside the case and tighten, then replace the transceiver in the case.

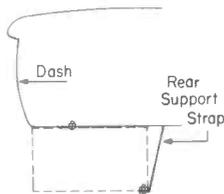
This type of mount, incidentally, can be used with many transceivers which were originally designed for other types of mounting, by drilling bolt holes in the case itself. It often allows an installation where space is too cramped for any type of hanger or frame.

If the area where the nuts would go in this type of mounting is inaccessible, then “pan-head” sheet-metal screws can be used instead. Drill the vehicle with a smaller drill than you would use for clearance; a $\frac{1}{8}$ -inch is about right. Then use No. 10 by $\frac{3}{8}$ -inch sheet-metal screws, with lock washers as before.

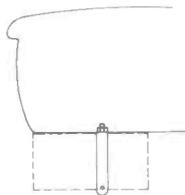
For hanger mounting, the same procedure is followed except that instead of using part of the transceiver case, the hanger supplied with the rig is bolted to the vehicle. The same techniques and precautions should be observed.

The mounting frames are supplied with complete installation instructions, which differ depending upon the frame model and the type of vehicle. A point to watch for—be sure you have enough clearance for easy removal before deciding on a frame mount.

Remote control heads mount in the same way as transceivers which bolt directly to the vehicle; a few use hangers.



Bolt-on mounting



Hanger mounting



Use of lock washers

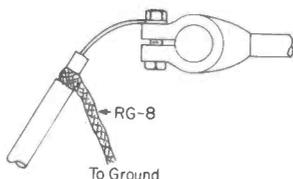


These units may be placed almost anywhere convenient to the operator. Remote-control heads, however, are almost always accompanied by separate speakers, and there is no need for the speaker to be mounted out in the open.

A good place for most small speakers is on the firewall, above the steering column passage. The only important thing in choosing a speaker-mounting location is to make sure it's large enough for the speaker. With volume turned up, you'll hear it most anywhere in the vehicle.

With the transceiver installed, your next step is to supply it with power and arrange a route for the antenna cable.

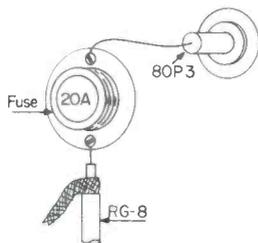
Though many transceivers are supplied with a battery cord which plugs into the vehicle's cigar lighter, this should be considered *strictly* an emergency measure suitable for initial demonstrations only. A permanent installation requires permanent wiring, and this must be done with a bit of care unless you're in a hurry to collect your vehicle fire insurance.



Battery connection

For best results from the radio (for a number of reasons) the power should be taken directly from the hot side of the battery itself, through shielded cable. RG-8 coaxial cable is perfect for this job. Connect a soldering lug to one end of the center conductor, large enough to attach to the battery-post clamp, and extend the grounding of the shield with extra copper braid so that it's long enough to reach a *good* ground point near the battery.

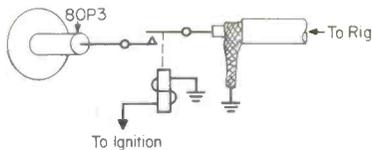
Install a *Sprague* 80P3 coaxial filter capacitor (or its equivalent from other manufacturers) on the firewall, and mount a fuse block with a 20-ampere fuse (the household variety is excellent) nearby. Connect the free end of the coaxial cable center conductor to the fuse block, and run a short lead from the other side of the fuse block to the coaxial-capacitor terminal on the engine side of the firewall.



Fuse block detail

In the passenger compartment, mount a 12-volt DC relay (a horn or headlight relay is excellent; it can be obtained from your auto-supply store and will cost less than a radio-grade unit) near the capacitor and run a short lead from the capacitor terminal to the relay's normally-open contact

Relay wiring



(this may be marked "horn" or "high beam"). Using coaxial cable again, with the outer shield braid firmly grounded, run a lead from the relay arm ("battery" terminal) to the transceiver's DC-power input.

Ground one side of the relay coil; this may already be done if you're using a headlight relay. Connect the other side to the "accessory" post of your ignition switch.

Now, with ignition switch off the relay won't let power through to the transceiver, providing protection against its use by unauthorized persons. When the ignition is on, the transceiver is supplied DC which is as near noise-free as you can get it (due to the total shielding and coaxial capacitor). You're almost in business. All we need now is an antenna.

Picking the Right Antenna

Name it and you can have it when it comes to mobile antennas. The original shape was a simple steel whip, 108 inches long. As demands of style and performance have dictated throughout the years, you have been able to take your pick of short whips, normal whips, long whips, straight whips, bent whips, twisted whips, and a few that don't even resemble whips at all.

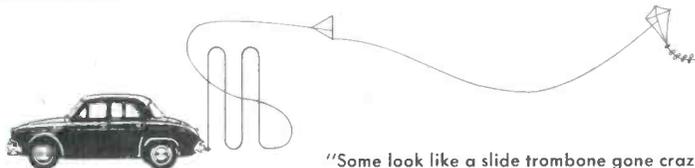
One of the most unusual looking resembles a slide trombone gone crazy. Another is a small ring which mounts atop the vehicle roof.

And the strange part is that all of them work, and (considering their various purposes) work mighty well!

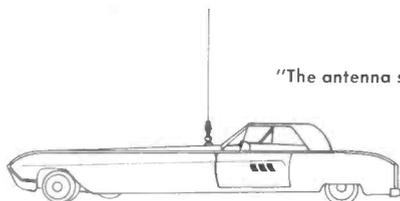
The rooftop ring is known variously as a "directional discontinuity ring radiator" or an "omni-slot," and offers efficiency equal to a full-size whip. Its major drawback is that it works perfectly on only one channel at a time, with performance falling fairly sharply as you get more than a couple of channels away from the one to which it's tuned—but for single-channel systems this is no disadvantage.

The "crazy slide trombone" is known as the "Mac-whip" and is one designer's way to squeeze a half-wave of wire (with 3 db gain) into a quarter-wave of space. Informal comparative tests indicate it does at least as well as any more conventional appearing antenna tried, and apparently better than many.

The rest of the vast assortment of antennas offered to the would-be mobile derive from the various factors which affect antenna performance.



"Some look like a slide trombone gone crazy..."



"The antenna should be in the center of a large expanse of metal"

For instance, to get the best radiation pattern and greatest coverage the antenna should be mounted in the center of a large, flat expanse of metal. The only point on a car approaching this definition is the center of the roof. But an 8-foot whip sticking up from the center of the roof is more than most people will bear.

To overcome this objection, designers came up with ways to physically shorten the whip while maintaining the apparent electrical length at a full 108 inches. One of these ways was to insert a loading coil, which is simply a coiled-up wire of rather special design. This coil electrically lengthens the whip, so that its electrical length is much more than its physical length.

The loading coil may be placed either at the bottom, middle, or top of the whip—and all three locations have been included in various available designs.

The base-loaded whip offers the strongest mechanical construction, since the loading coil invariably adds some weight and this added weight is right at the bottom in the base-loaded version. Counterbalancing this feature is the fact that base loading reduces total whip current—and it's the current that does the major part of getting the RF power out and away!

The top-loaded whip is least attractive mechanically, with its coil at the very end of the slender whip rod, but this location for the loading coil does raise the amount of current flow in the entire length of the whip, giving a tremendous punch for the small size.

A central position for the loading coil is a compromise between the two extremes, offering a balance between mechanical advantages and electrical advantages.

Still another way to make a whip appear longer than it is is to use what some designers call "distributed loading" and others more simply call a "helical whip."

In this type, the antenna itself consists of a fine copper wire (about No. 20 gauge) wound spirally around a 3/8-inch diameter fiberglass rod. The pitch of the winding changes gradually from one end of the whip to the other, and the amount of "loading" presented by winding the wire around the rod depends to a great degree upon the spacing of the turns.

By proper adjustment of winding pitch, the distributed-load antenna can be made to *outperform* a full-size whip while requiring an over-all physical length of only 18 inches, nearly a 5-to-1 reduction in size.

All of these "short whips" are most useful when mounted atop the vehicle, to take advantage of both the height and the uniform "ground" presented by the vehicle roof. However, sometimes such mounting locations are impractical.

One example would be in a vehicle which traveled mainly through heavy wooded areas—any rooftop whip would be swept away rather rapidly.

Another, more-to-the-point example is a convertible. This type of car has no roof on which to mount a whip!

In such cases, the choice lies between body and bumper mounting, and special antennas have been devised for both types of locations.

The body-mount antennas range from standard 108-inch whips through 102-inch whips (designed to be used with a 6-inch spring, to absorb shock of low limbs) to longer versions of the rooftop whips. These are typically 3 to 6 feet long, and are designed in many cases to replace the vehicle's BC-radio antenna.

Bumper-mount antennas usually are full-sized whips, either the 108 or 102 inch versions, but some of the shorter models are occasionally sold for this purpose also. Since height is so important, it's recommended that you use the plain basic whip if you have to mount on the bumper—and also that you avoid bumper mounts if possible, and choose instead the most elevated position on the vehicle you can use.

With all this multiplicity of antennas available, how do you go about picking one? The basic approach is highly similar to the technique used to choose the proper transceiver. First consider the limitations imposed by the vehicle, next those imposed by performance, and finally those which result from considerations of convenience.

As an example of a vehicle limitation, we've already seen how a convertible rules out rooftop antennas. This may be one of the most extreme cases, but others do exist. Some delivery trucks can't use bumper mounts, for instance, because of the overhang of the body. Other family members may insist that no holes be drilled in the vehicle body, which is a distinct limitation of antenna types (though not too limiting in practice).

Best performance (in general terms) is likely to be achieved with a full-length whip mounted in the center of the vehicle roof, but as mentioned previously this is more than a bit extreme for most folks. To determine how much compromise with this ideal you can accept, you must first know how the various factors affect antenna performance.

Height above ground and range in miles are very closely related. An antenna located five feet off the ground won't reach out so far (all other things being equal) as one located nine feet in the air. Thus you should put the base of the antenna as far above ground level as you can arrange.

If operating within a "no new holes" restriction, about the best you'll be able to do in this regard is the existing BC-radio antenna mounting hole. Otherwise, seriously consider the roof.

However, any "loading" of the antenna to reduce its physical size cuts down on its efficiency, so that a loaded antenna and a full-length whip, side by side with the same input, won't normally put the same signal strength into a distant station. Most times the full-size whip is stronger (the exception is with the distributed-load whip, which frequently out-



Bumper mount detail

performs the ordinary variety).

These two contradictory factors interact to a large degree, so that even a relatively inefficient short, base-loaded whip mounted atop the vehicle usually outperforms a full-length antenna mounted on the bumper. This fact alone has resulted in a huge mass of confusion concerning antenna performance, when uninformed operators have tried short whips (up high) and immediately rushed to tell all their buddies the short whip is better than a long one!

If you like the rooftop location but even 18 inches of short whip is too much for your particular situation, you might consider the ring radiator mentioned earlier. Its commercial availability is in some question as this is written (two firms have announced it in the past 3 years but neither, so far as we know, has made it into CB production).

To sum up the choice of a proper antenna, first decide how far you want to go for maximum performance. Next, determine the limitations imposed by the vehicle and by other family members. Within these limitations, find an antenna (or group of antennas) which can be used, and choose the one from this group which you like best.

You may notice we didn't say a word about "impedance"; this is because virtually *all* commercial mobile antennas are designed for 50-ohm feed, and it's a safe bet that any antenna you pick will be completely compatible with both your coax and your transceiver.

Installing the Antenna

As in the installation of the transceiver itself, the first step in the installation of the antenna is to pick the mounting location—which was already considered fairly thoroughly while choosing the antenna.

Techniques of antenna installation, like those of transceiver installation, differ from vehicle to vehicle and from antenna to antenna, but also like transceiver installation, certain general techniques apply to most cases.

Let's take the simplest and easiest case first. It's the bumper mount.

A bumper-mounting antenna consists of the antenna itself, a spring (if one is used), and the mount assembly.

The mount assembly consists of a specially shaped bracket and a chain strap. Some mount assemblies use two chain straps, and few include a second bracket for the other end of the chains.

The bracket sits atop the bumper, hooked over its top edge, while the chain or chains run around the bumper to the bottom. The second bracket, or if none is provided a hook on the end of the chain, grips the lower edge of the bumper, and the chain bolts are then tightened until the complete assembly grips the bumper tightly.

If you want to avoid all chance of marring the bumper, cover the chrome with a layer of rubber from a discarded innertube before installing the mount assembly. This will require that you then run a copper-braid grounding strap from the assembly to the vehicle ground, to complete the electrical circuit.



With the mount assembly tightly in place, attach the spring and position the universal joint between spring and mount assembly so that the spring is vertical. Then thread the whip into the threaded hole atop the spring, tighten all down tightly, and the installation is finished.

To make connection, clamp the center conductor of the coax to the bolt which is insulated from the mount assembly, and ground the outer shield to the mount assembly itself. The other end of the coax, of course, connects to the transmitter. (We'll talk about cabling it from antenna to transceiver shortly; first, we'll examine some of the other installation procedures.)

To install an antenna of the type which replaces the normal BC-radio antenna, first disconnect and remove the BC-radio antenna. These antennas usually come free by loosening a nut of the underside of the antenna fixture; the nut clamps the whole thing together and when it's taken loose the entire antenna assembly seems to dissolve into a mass of parts in your hand.

Fish the coax through the necessary body holes and have it ready to attach. Then slip the new antenna mounting clamps through the hole (from the top side) and work them into position. Tighten the clamp nut, attach the coax connector, and you're finished.

Installation of the conventional body-mount antenna is a bit more complex. These usually employ a mounting ring which has a universal joint and spring attached. The mounting ring is separated from the vehicle body by a gasket, and is grounded by the three mounting bolts which bite into the body metal on the *underside* when tightened.

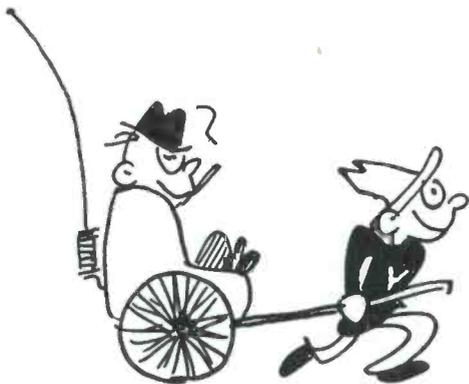
Some models of automobiles require little or no body drilling for such antennas. For instance, the 1959 *Ford's* backup lights are exactly the same size, and if one backup light lens is removed the body mount can be installed in the space thus made free. Older *Pontiacs* have a circular insignia on the rear fender which can be used in the same way. Some models of *Oldsmobile* have lights almost identical to 1959 *Ford*. To find out if your vehicle has any such ready-made mounting places, use the mounting-ring gasket as a template and examine all the likely locations. If you can find such a spot, you won't have any worries about lowering trade-in value of the vehicle.

If no such convenient location is available, you can use most any spot you like. The conventional location is on the "shoulder" of the body, just below the level of the rear window. On trucks, the corner of the cab is frequently used. Station wagons may present some problems.

Then use the mounting-ring gasket as a template to mark locations of the three mounting-bolt holes and of the large center-clearance hole. Drill the center-clearance hole with



"I still think they left something out of the instructions . . ."



a 1/4-inch hole-saw in an electric drill, or with a "fly-cutter" set to 1/4 inches. An alternate method is to use a 1/4-inch chassis punch, which will require a 3/8-inch pilot hole. Then drill the three mounting-bolt holes. Check with the gasket to make certain all holes align.

Next, place the gasket against the vehicle body on the outside and cover it with the mount/spring assembly, lining up bolt holes (be sure the bolt holes were oriented properly for the spring to be approximately vertical at this point). Place the bolts through the holes, place lock washers on each bolt, and thread down nuts firmly. Don't twist the bolt in two, but apply enough pressure to make the lock washers bite through all undercoating, rust, or corrosion.

Attach the coax center conductor to the insulated terminal in the center of the mount, and ground the braid to one of the three mounting bolts. Thread the whip into the spring, and you're done.

Rooftop antennas install in a manner very similar to BC-replacement antennas except that you must drill the original hole. One of the easiest ways to do this is to remove the vehicle's dome light, lens, reflector, socket and all, and drill *upwards* through the roof at this point. Install the antenna from above, but be extra careful about putting excessive weight on the vehicle roof. If it "oilcans" in from too much weight, the resulting crease in the roof and crack in the finish will be impossible to remove. Never step on the roof for the same reason. After tightening the antenna down and connecting the coax, replace the dome-light reflector, socket and lense, and the installation will be invisible from inside.

What about the coax? It's time to talk about that now. So far, we've just assumed that the coax was already in place. However, it won't be in place unless you put it there, and it's really more practical to install the antenna first, then cable the coax through the vehicle to the transceiver location, and finally cut it off just long enough to permit the transceiver to be lifted out for service. Excessive coax not only is a waste of money and of signal strength, but can be dangerous should your accelerator foot tangle in it at a critical traffic moment!

Naturally, cabling details will vary with the antenna and

the vehicle, but in general the idea is to keep the coax concealed insofar as possible. A rear-bumper antenna location can be handled most easily by drilling a small hole ($\frac{5}{8}$ -inch diameter for RG-8; $\frac{1}{4}$ -inch for RG-58) in the lower part of the trunk compartment and running the coax inside at this point. The hole can be sealed with caulking compound applied from inside, and the cable should be clamped firmly into place with a nylon cable clamp close to the hole to avoid fraying of the coax insulation by cable movement.

From here both the bumper installation and the rear body mount are identical. The coax can be routed in the corners of the trunk to the front of the trunk compartment, and from there down behind the rear-seat and beneath it to gain entry into the passenger compartment.

Where the coax emerges from under the rear seat (a spot alongside the driveshaft hump is recommended if the vehicle has such a hump) it can be run under the floor mats to the firewall, where it should be clamped to the vehicle again. From the firewall, routing to the transceiver should be by the most inconspicuous path. This will usually be short.

When cowl mounting, similar to BC radio antennas, is used, the coax can be routed through appropriate existing holes in body panels into the engine compartment and from there through the firewall into the passenger compartment. The cable should be left slack until it reaches the passenger compartment, where it should be clamped.

On any of these types of installations, special care should be taken to waterproof the parts of the coax which are exposed to mud splash, rain, etc. All exposed connections should be thoroughly taped with vinyl insulating tape, stretched tight, and a couple of coats of plastic spray to seal against moisture wouldn't be a bad idea in addition. Moisture seeping inside the coax can easily cause intermittent operation which will be almost impossible to trace down should it develop.

A rooftop installation has no weatherproofing problems, since all wiring is inside the passenger compartment to begin with. If the recommended dome-light antenna-mounting method is used, a "snake wire" can be fed between the upholstery and the vehicle roof until it emerges under the dash (the general route will be toward a windshield corner post and down it), then used to pull the coax back through to the dome-light opening. Once there, it should be connected to the antenna and any excess pushed back beneath the upholstery. A gentle tug on the other end will usually straighten out any visible lumps.

If you should run into any cable-routing problems not covered by these general instructions, the answers will usually reveal themselves after enough hard headwork. On a few vehicles, running the coax to a roof mount may require that the snake-wire go *backwards* to the rear of the car, coming out in the trunk, and the coax then being routed forward again to the dash as for rear body or bumper mounts. Some vehicles have plastic roof upholstery cemented in place; on these, make the coax follow



the route of the dome-light wiring, which must eventually reach the under-dash region.

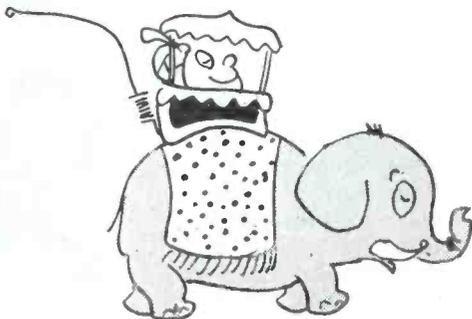
Once you have the coax in place, run to the transceiver, and cut, all that remains is to install an appropriate connector on it and hook it to the rig. However, for best results you may find the antenna in need of slight tuning.

As sold, most mobile antennas are cut for the *lowest* channel on which operation is expected. If most of your work is done on a higher channel than the bottom of the band, you may get some improvement by carefully shortening the antenna.

The procedure will vary from whip to whip, and should never be taken unless you have an SWR meter available and know how to use it. The idea is to measure SWR on your favorite channel. If it is appreciably higher than 1 to 1, trim about $\frac{1}{8}$ inch off the end of the whip and chack again. If the SWR goes down, take another bite . . . and keep this up until the SWR reaches the neighborhood of 1 to 1. Be careful of going too far, though.

After the antenna is trimmed to length, check the power input to the transmitter's final stage to be certain it is 5 watts or less. If it is appreciably less, take it to a licensed technician for returning. *IT'S ILLEGAL TO RETUNE IT YOURSELF WHEN THE ANTENNA IS CONNECTED.* Have him make the adjustments for maximum output consistent with staying inside the 5-watt limit. Strangely, this doesn't necessarily mean that you'll be using the full 5 watts. Some antennas and transceivers react to each other in such a way that more useful power output is obtained at lower power input levels—or, in other words, the rig is much more efficient at lower power than it is at 5 watts, and actually puts out more. This isn't always the case, but it happens often enough that you should be aware of it.

At this point, you have a transceiver and antenna installed, connected, and tuned up. You're ready to operate—and may never want to do anything more to your installation. We'll say goodbye for now, but next month we'll be looking at what we can do about noise, which accessories are helpful for mobile work and how to install them, how being mobile affects the audio, and (of special interest to mobileers in the northern regions) how to cure the problem of the perpetually weak battery. We'll also have a few things you can build for your mobile. See you then!



S9

Introducing the Eico 777



**New
deluxe CB transceiver
dual conversion superhet,
6 crystal-controlled channels,
3-way power supply. Build it for \$119.95.**

Compare it feature by feature with CB transceivers costing many dollars more!

Dual conversion superhet receiver (1750 kc 1st IF; 262 kc 2nd IF), with RF stage for razor sharp selectivity. 6 crystal-controlled transmit/receive channels, easily selected by illuminated front panel switch. Illuminated dial continuous vernier tuning of receiver for all 23 channels. Series type noise limiter circuit for quiet reception, plus adjustable squelch and AVC. Illuminated, direct-reading S-Meter indicates received signal strength. Spotting switch for exact receiver tuning. Full use of 5 watts input maximum legal power, and high intelligibility of transmission, with 3 watts clean audio modulating power. External controls for matching plate load of RF final amplifier to antenna for optimum power transfer. 3-way power supply — 6 or 12 VDC battery power or 117 VAC. Kit builders can put 777 on air without supervision of a person holding a commercial radio-telephone license. Transmitter oscillator circuit and RF final mounted, wired, tuned and sealed to comply with FCC regulations. Sturdy Posi-Lock® mounting bracket permits 180° rotation with positive lock every 30°. Kit \$119.95; wired \$189.95.

770 SERIES 5 WATT, 4 CHANNEL CB TRANSCEIVERS—AS LOW AS \$79.95 Your choice of 5 watt transceivers for 117 VAC; 117 VAC/12 VDC or 117 VAC/6 VDC. 4-channel, crystal-controlled transmitter and superhet receiver with RF stage, 1 μ v sensitivity, noise limiter and adjustable squelch. Receiver tunes all 23 channels—can be crystal-controlled on 1 channel. Model 770: 117 VAC only. Kit \$79.95; wired \$109.95. Model 771: 117 VAC & 6 VDC. Kit \$89.95; wired \$119.95. Model 772: 117 VAC & 12 VDC. Kit \$89.95; wired \$119.95.



NOTE: 777 has rear socket for selective calling attachment.

EICO

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Add 5% in West

Please send: New 1964 catalog Short Course for Novice License

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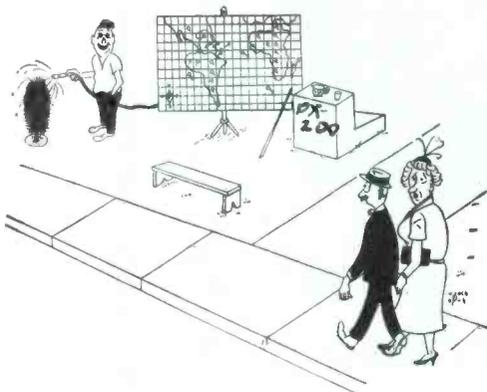
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CARD SWAPPERS UNLIMITED



"Far heaven's sake, don't ask him if he's gotten any DX cards lately!"

This month we have a few requests and other bits of "old business" before we go into the listings.

First, although we have received many letters expressing satisfaction from those whose names have appeared in *Card Swappers Unlimited*, we have nevertheless gotten some mail from swappers who say that some of the persons listed in S9 did not reply to their swap offer. There can be only two reasons for such a turn of events. 1) Some cards seem to elicit a better response than others because of their design, and 2) Some of those people who send their names in here may just want to receive mail. The only way we can do anything about this is to request that unless you want to swap, please don't send us your name for listing. Also, effective immediately, we will not be able to accept any typewritten, hand-written, or hand drawn QSL's for listing here. It is reasonable to assume that anyone who is sincerely interested in swapping would, of necessity, require some form of printed card (even mimeographed).

Now, on to pleasant things. A few months ago we asked you to do us a favor and send cards to a Ham operator. You really came through *swell* and we want to take this opportunity to thank you, each and every one individually. This month, we sure would appreciate your dropping a QSL to the following two operators who are listed with us: KBG7527 and KODOM. Thanks muchly!

The folks at Errol Engraving (P.O. Box 411, Westfield, Mass.) tell us that they attend just about every CB rally and jamboree in the northeastern states and that they will be happy to distribute cards from S9 readers at these jamborees. If you have a few extra cards to spare, send them

along to Errol—who promises *not* to leave them in a stack on the edge of a table to be "lost in the shuffle," but to hand each one out individually to the "cream of the swappers" attending the functions.

Several changes have been made in the S9 Swappers' Awards rules, plus a few additional awards have been whipped up to meet the ever growing needs of the swappers. A free copy of the *new* rules may be obtained by sending a stamped, self addressed envelope to: "Swappers Awards Rules," S9 Magazine, 300 West 43rd St., New York, N. Y. 10036.

Please don't waste your postage by sending us "chain letters," we don't answer them.

Here are the Swappers Award Winners for this month:

- | | |
|-------|---|
| SACA | 33 Stanley J. Penc, KJI13337, Utica, N. Y. |
| | 34 William Jones, KBA8553, Putnam, Conn. |
| | 35 Gene Bull, KFA 1059, Sierra Vista, Ariz. |
| | 36 Wally Foster, KFA 1060, Sierra Vista, Ariz. |
| | 37 Tom Watson, KDD2173, Huntsville, Ala. |
| | 38 Bert Fondren, KEG3491, Plainview, Tex. |
| PX-25 | 104 Jack Doggett, 17Q1339, Des Moines, Iowa |
| | 105 Scott Bruning, KGC0442, Colo. Springs, Colo. |
| | 106 Charles Flowers, Chapel Hill, N. C. |
| | 107 David Perry, KBC2434, Westboro, Mass. |
| | 108 Steve Nye, KHCO956, Freeport, Ill. |
| | 109 Raymond Hebda, KBI6584, Trenton, N. J. |
| | 110 Harold Roberts, KDE2475, Columbia, S. C. |
| | 111 Robert Trowbridge, KDB1821, Waynesboro, Ga. |
| | 112 Raymond Reynolds, KBD0312, Lowell, Mass. |
| | 113 Gene Bull, KFA 1059, Sierra Vista, Ariz. |
| | 114 Wally Foster, KFA 1060, Sierra Vista, Ariz. |
| | 115 Raymond Turek, KGC0267, Denver, Colo. |
| | 116 Richard Sprinkle, KCJ4859, Winston-Salem, N. C. |
| | 117 Steve Josias, KBI4691, No. Massapequo, N. Y. |
| | 118 Ronald Orchid, KFD6248, San Francisco, Calif. |
| | 119 Steve Wekar, KBI5526, N. Valley Stream, N. Y. |
| | 120 Mark Ewing, KCG2291, Staunton, Va. |
| | 121 Howard Luthy, KG D0135, Logan, Utah |
| | 122 Bailey Curtis, KCG0346, Etkins, W. Va. |
| PX-50 | 88 Jack Doggett, 17Q1339, Des Moines, Iowa |
| | 89 Scott Bruning, KGC0442, Colo. Springs, Colo. |
| | 90 Bill Calvent, KIC5720, Duncansville, Pa. |
| | 91 Earl Cogar, KHI4500, Bolair, W. Va. |
| | 92 Gene Bull, KFA 1059, Sierra Vista, Ariz. |
| | 93 Wally Foster, KFA 1060, Sierra Vista, Ariz. |
| | 94 Raymond Turek, KGC0267, Denver, Colo. |
| | 95 Mark Ewing, KCG2291, Staunton, Va. |
| | 96 Eugene Magnus, KCF0889, Wheaton, Md. |
| PX-75 | 48 Jack Doggett, 17Q1339, Des Moines, Iowa |
| | 49 William Jones, KBA8553, Putnam, Conn. |
| | 50 Gene Bull, KFA 1059, Sierra Vista, Ariz. |
| | 51 Wally Foster, KFA 1060, Sierra Vista, Ariz. |
| | 52 Ralph Stouffer, KIC5155, McConellsburg, Pa. |
| | 53 Mark Ewing, KCG2291, Staunton, Va. |
| | 54 John Adams, KEB2231, Fayetteville, Ark. |

55 Lee Aspinall, KBA8595, North Haven, Conn.

PX-100 34 Jack Doggett, 17Q1339, Des Moines, Iowa
 35 Stanley Penc, KJ13337, Utica, N.Y.
 36 William Jones, KBA8553, Putnam, Conn.
 37 Gene Bull, KFA1059, Sierra Vista, Ariz.
 38 Wally Foster, KFA1060, Sierra Vista, Ariz.
 39 Ralph Stouffer, KIC5155, McConnellsburg, Pa.
 40 Mark Ewing, KEG2291, Staunton, Va.
 41 Bert Fondren, KCG3491, Plainview, Tex.
 42 Marc Joondeph, KBG9040, Ridgewood, N.J.

MSA 16 Ralph Myro, KBA1081, Plymouth, Mass.
 17 Stanley Koch, KHI3697, Caro, Mich.

SSC-1 14 George Hoover, KDD0550, Polkville, N.C.
 15 William Jones, KBA8553, Putnam, Conn.
 16 Stanley Penc, KJ13337, Utica, N.Y.
 17 Ralph Myro, KBA1081, Plymouth, Mass.

SSC-2 8 George Hoover, KDD0550, Polkville, N.C.

You, too, can be listed as an S9 cardswapper. All you have to do is send us in a card (please enclose in envelope and don't mark up the card) and get it to our office not later than April 12th for listing in the June issue. You can be listed every month, but each month will require a separate card. Send all cards for listing to: "Cardswappers Unlimited," S9 Magazine, 300 West 43rd St., New York, N.Y. 10036. Remember, no handmade cards, and send *only* if you intend to actually swap.

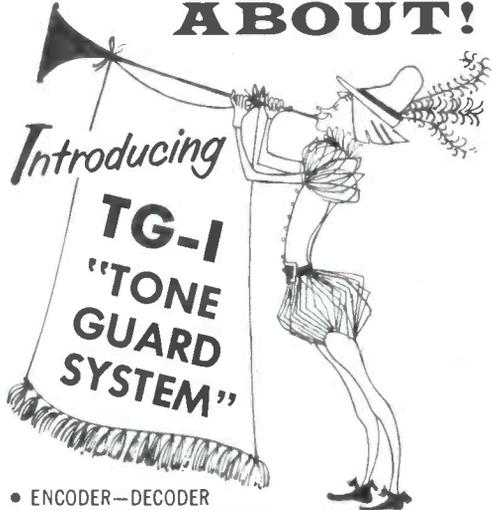
1Q0133 Chick Banta, 66 Ensign, E. Hartford, Conn.
 1Q1472 Alfred Girouard, RFD Allens Ave., Wakefield, R.I.
 1Q3583 Paul Newfield, P.O. Box 44, Taunton, Mass.
 1Q4374 Cheryl Kunitz, 29 Eastern Ave., Lynn, Mass.
 1Q6865 Tom Howarth, 52 Lincoln St., Esmond, R.I.
 1Q6992 Bill Prince, Box 281, York Harbor, Maine
 1W2963 Arthur Van Wart, 11 Perkins, Arlington, Mass.
 1W7223 Gerry Lecours, 34 Bridge St., Monson, Mass.
 1W9494 Gary Sibulkin, 67 Trenton St., Manchester, N.H.
 2A5804 Irv Herszkowitz, 655 E. 19th St., Brooklyn, N.Y.
 2A5880 Mike Borisuk, 80 Jewell St., Garfield, N.J.
 2Q0602 Arthur Hamm, Church St., Philmont, N.Y.
 2Q1011 Les Strassman, 530 Olive Terr., Union, N.J.
 2Q2301 Al Augustyn, 2029 Caroline Ave., Linden, N.J.
 2Q3113 Lou Fazekas, 161-30 Jewel Ave., Flushing, N.Y.
 2Q3439 Tom Grtmke, 1482 E. 95th St., Brooklyn, N.Y.
 2Q4569 Charles Miller, 32 Manning Ave., N. Plainfield, N.J.
 2W4250 Elmer Molnar, 72 Highland Ave., Clifton, N.J.
 2W7638 Bill Holt, 314 Mountainview Terr., Dunellen, N.J.
 2W8966 Helen Hiatt, P.O. Box 482, East Setauket, L.I., N.Y.
 2W9623 Bert Endress, 161 E. 4th St., Clifton, N.J.
 2W9929 Al Shuhart, 35 Lakeview Ave., Hartsdale, N.Y.
 3W2725 Fred Orth, 806 Flexer Ct., Allentown, Pa.
 3W4434 Joe Lattanzi, P.O. Box 236, Brockton, Pa.
 5Q2643 Norman Easter, 129 Scott Ave., High Point, N.C.
 5Q2679 Richard Arwell, Rt. 3, Box 42, Kannapolis, N.C.
 5W3556 Richard Wallace, Box 98, Candor, N.C.
 6Q0054 Glenn Poore, Box 142, Byrdstown, Tenn.
 6Q0914 Paul Skidmore, Box 243, Rockwood Rt. 1, Tenn.
 6Q3697 Norman Looney, Rt. 4, Athens, Ala.
 6Q5101 Elmer Bishop, 1236 Bellridge Dr., Kingsport, Tenn.
 6W2675 Bobby Morehead, Rt. 2, Box 412, Shelby, N.C.
 6W4390 Claude Witt, 206 Dunbar Lane, Crossville, Tenn.
 6W7575 Warner Bishop, 34 Charles St., Cartersville, Ga.
 7W0129 Douglas Kirk, 535 37th St. S., St. Petersburg, Fla.
 7W0130 Laurence Kirk, 535-37th St. S., St. Petersburg, Fla.
 8Q0180 Charles Ratliff, 104 Ave. A., Brookhaven, Miss.
 10Q1213 Howard Townsend, 1111 W. 4th St., Mt. Pleasant, Tex.
 11Q1313 G. Strainline, 1171 W. Miracle Mile, Tucson, Ariz.
 12Q2962 Casey Duroso, 786 Malarin Ave., St. Clara, Calif.
 17Q1339 Jack Doggett, 8060 Dema Dr., Des Moines, Iowa
 17Q3359 Eddie Peck, 1735 No. Park Ave., Fremont, Nebr.
 17W3325 Pete Nosler, 1144 Pinebridge, Wichita, Kans.
 17W5449 Henry Hawkins, 501 West 10th St., K.C., Mo.

18A8492 George Ready, RR. 1, Carlisle, Ind.
 18B0339 Betty Medearis, 1506 No. Hoyt, Chillicothe, Ill.
 18B2286 Don Ralph, 7610 Rhode Isl. St., Hammond, Ind.
 18B2647 Joel Davis, 7644 N. Kedvale, Skokie, Ill.
 18B2698 Maxine Dick, P.O. Box 167, Kokomo, Ind.
 18Q2210 Russell Lentz, 713 No. State Rd., Grayville, Ill.
 18Q6133 Mel Baer, 6429 N. Glenwood Ave., Chicago, Ill.
 18Q6606 Chuck Curran, 9880 W. 10th 30C, Indianapolis, Ind.
 18QA1060 Ed Abrahamson, 827-13th Ave., Moline, Ill.
 18W8648 Virgil Schroeder, P.O. Box 63, Cedarville, Ill.
 19Q4782 Forest Cupp, 900 Leonard St., Fostoria, Ohio
 19Q8919 Bud Made, 4306 Manchester Ave., Perry, Ohio
 19Q9470 Adrian Fallert, 121 North C St., Hamilton, Ohio
 19Q9941 Martin Ripper, 7617 Cavell, Garden City, Mich.
 19QA0442 Art DeFrain, 226 So. 3rd St., Harbor Beach, Mich.
 19W4980 Joan Webster, 10170 Hyde Park, Romulus, Mich.
 20Q0255 Philip Lundy, 48 Sodus St., Clyde, N.Y.
 20Q1116 Jim Kiser, 218 E. 23rd Ave., Altoona, Pa.
 20Q2007 Chuck Auld, 454 Connecticut Ave., Rochester, Pa.
 20Q3382 Stanley Penc, 1524 Mountain View Ave., Utica, N.Y.
 20Q4011 Morris Kemmerer, Mountain Top, Penna.
 20Q4636 Ralph Seifert, Turin Rd., Rome, N.Y.
 20W1258 Walt Hall, RD. 2, Box 16, Altoona, Pa.
 20W1637 Kemp Supply Co., 32 E. Shirley, Mount Union, Pa.
 20W4590 Jud McNamara, RD. 3, Towanda, Pa.
 20W5494 Don Kalbflesh, R. 6, S., Chambersburg, Pa.
 KA11467 Roger Zaruba, 448 Union Ave., Rutherford, N.J.
 KBA1182 Mary Moulton, Box 281, York Harbor, Maine
 KBA1332 Bob Burns, 125 North St., Waterville, Maine
 KBA3999 Jim Bernard, P.O. Box 1, Oak Bluffs, Mass.
 KBA4431 Art Blake, 155 Hillcrest Ave., W. Hartford, Conn.
 KBA4936 Steve Cornell, Box 121, Shannock, R.I.
 KBA5557 Ted Cummings, Bellflower Rd., Billerica, Mass.
 KBA6387 Bob Sullivan, 41 State St., Monson, Mass.
 KBA6409 Everett Wadleigh, Box 54, Belgrade, Maine
 KBA6853 Sebastian Calvo, 122 Brookside Circle, Wethersfield, Conn.
 KBA8472 William Harrington, Box 1391, Springfield, Mass.
 KBA8553 William Jones, 127 Grove St., Putnam, Conn.
 KBA8595 Lee Aspinall, 20 Forest Ave., North Haven, Conn.
 KBA8681 George Jolly, RR. 2 Talcottville Rd., Vernon, Conn.
 KBA9346 Al Baron, 28 Antonio Ave., Meriden, Conn.
 KBA9442 Roland Gosselin, 81 Wight St., Berlin, N.H.
 KBB0005 Bob Anderson, 44 Spring St., Hope Valley, R.I.
 KBB0214 Tom Zane, Det 1 762nd. Radron, Box 4627, Otis AFB, Mass.
 KBB0266 Ernie Guimares, Box 544, Middleboro, Mass.
 KBC0209 Vince Melendy, Spring St., Bedford, Mass.
 KBC1409 Tony Calore, 3 Angell Ave., Johnston, R.I.
 KBC1550 Fran Wear, 14 Ropes St., Beverly, Mass.
 KBC1928 Joe Sikorski, 238 Main St., S. Glastonbury, Conn.
 KBC1977 A.C. Masciarelli, P.O. Box 297, Clinton, Mass.
 KBC2257 Gene Aludi, 24 Toby St., W. Hartford, Conn.
 KBC2451 Eric Ruderman, 21 Drury Lane, Wakefield, Mass.
 KBC2565 Vincent Arakelian, P.O. Box 2946, Providence, R.I.
 KBC3484 Doug Ward, 155 Kibbe Rd., East Longmeadow, Mass.
 KBC5195 Bob Belmont, 25 Summit St., Middleboro, Mass.
 KBC5346 Orv Rider, 98 Davis Dr., Bristol, Conn.
 KBC5738 Jack Harrington, 44 Orchard View St., W. Springfield, Mass.
 KBC6097 Gary Shamel, 61 Alcott St., Acton, Mass.
 KBC6221 Dick Chadbourne, 159 Elm St., Biddeford, Maine
 KBC6286 Alan Kaiser, 194 Glen Hills Rd., Meriden, Conn.
 KBC6427 "Boom Boom" Edelstein, 8 Shirley Ave., Methuen, Mass.
 KBC7008 Ray Upsyde, 144 Main St., E. Hartford, Conn.
 KBC7179 Larry Martin Jr., 175 Winthrop St., New Britain, Conn.
 KBC7455 Gerald Georgopolis, 75 Cross St., Lawrence, Mass.
 KBC7505 Art Lima, 4 Denison, Stonington, Conn.
 KBC7674 Kenneth Koszewski, 34 Nelson St., Webster, Mass.
 KBC7679 Robert Huguennin, College Rd., Concord, Mass.
 KBC8016 Richard Wagner, 267 Boston Rd., No. Billerica, Mass.
 KBC8144 Darrold Gooley, 21 Crosier Ave., Pittsfield, Mass.
 KBC8416 Joe Shermetaro, 39 Western Ave., Gloucester, Mass.
 KBC8777 Bill Bilodeau, 51 Stevens Rd., Manchaug, Mass.
 KBC9397 Charlie Podzaine, 10 Williams St., Stonington, Conn.
 KBC9823 Mike Cashin, 2 Trickert Rd., Lynnfield, Mass.
 KBD0094 Doug Hilton, 178 Portsmouth Ave., Greenland, N.H.
 KBD0872 Richard Calvo, 122 Brookside Circle, Wethersfield, Conn.
 KBD1521 Bunny Mulkern, 268 East St., Elmwood, Mass.
 KBD2305 Ray Colby, Liberty St., Middleton, Mass.
 KBD2449 Lawrence Martin Sr., 175 Winthrop St., New Britain, Conn.
 KBD2689 Lawrence Dawson, RFD 3, Houlton, Maine
 KBD3161 Stephen Foss, 78 Wachusett Ave., Lawrence, Mass.
 KBD3204 Gene Hulser, 368 Stoneridge Rd., Bridgeport, Conn.
 KBD3363 Dick Schnell, 581 Chapin St., Ludlow, Mass.
 KBD4196 Joe Sherry, 1338 Woodbury Ave., Portsmouth, N.H.

KBD4245 Ralph Westerberg, 103 Dauntless Lane, Hartford, Conn.
KBD4510 Russell Peterson, 16 Dailey Circle, Rockville, Conn.
KBD4622 Wayne McGrath, Prospect St., Cheshire, Mass.
KBC0998 John Patois, 131 N. 2nd St., Paterson, N.J.
KBG1130 John Flynt, 3441 Jackson Ave., Wantagh, L.I., N.Y.
KBG1978 James Capicotto, 31 Hudson Dr., Newburgh, N.Y.
KBG2089 Robert Tkaskal, Rt. 3, Box 236, Saugerties, N.Y.
KBG3105 Elvin Elliott, New Paltz, N.Y.
KBC3659 Marvin Badler, 310 Windsor Place, Brooklyn, N.Y.
KBC3779 Andy Stefanick, Box 407, Mt. Arlington, N.J.
KBC3817 Paul Calderlo, 199 Lincoln Place, Garfield, N.J.
KBC4952 Al Aronowitz, 91 Haussler Terr., Clifton, N.J.
KBC6190 Kay Miller, 32 Manning Ave., Plainfield, N.J.
KBC7067 Charles Smutny, 125 Cochran Place, Valley Stream, L.I., N.Y.
KBC7527 Len Haas, 2295 N. W. 14 St., Miami 35, Fla.
KBC7712 Helen Badler, 310 Windsor Place, Brooklyn, N.Y.
KBC7954 Richard Cotton, 28 So. Franklin Ave., Lynbrook, L.I., N.Y.
KBC8599 Barry Schaffer, 35 Hillside Ave., New York, N.Y.
KBC8837 Stephen Pollack, 53 Haddenfield Rd., Clifton, N.J.
KBH0019 Gerald Metcalf, 1411 No. 4th St., Chillicothe, Ill.
KBH0092 Howard Rannals, 1737 1/2 Central Ave., Dubuque, Iowa
KBH0301 Jack Whittier, 2400 Johnson St., Janesville, Wis.
KBH0527 Bud Fields, 405 South Cooper St., Kokomo, Ind.
KBH1317 Howard Metcalf, 1213 Meadowbrook Dr., Lafayette, Ind.
KBH1755 Bob Darling, P. O. Box 231, Owensboro, Ky.
KBH1816 Theodore Hocking, RR. 4, Mt. Carmel, Ill.
KBH8472 William Harrington, Box 1391, Springfield, Mass.
KB10275 Hank Mancura, 64 Meadow Lane, Levittown, L.I., N.Y.
KB10561 George Hulse, Box 371, Centereach, N.Y.
KB10724 Chip Dresser, 927 Paulding St., Peekskill, N.Y.
KB10906 Dick McCarty, 9 E. Valley Stream Blvd., Valley Stream, N.Y.
KB10926 Marvin Morse, Durham, N.Y.
KB11163 Ruth Wudrich, 64 Camp St., Sidney, N.Y.
KB11174 Joe Medeiros, 185 Wartman Ave., Brooklyn, N.Y.
KB11456 Ann Kirn, P. O. Box 666, Port Ewen, N.Y.
KB11467 Lance Wheeler, 9 Riverledge Rd., Hudson, N.Y.
KB11701 Marvin Krauss, 1643-44 St., Brooklyn, N.Y.
KB12123 Richard Rios, 2897 Ardsley Rd., Wantagh, L.I., N.Y.
KB12251 Mona French, 19 Essex Lane, Old Bridge, N.J.
KB12332 Lou Gultz, 2117 Laurel Court, Yorktown Hgts., N.Y.
KB13589 Roy Overbaugh, 542 Vischer Ave., Schenectady, N.Y.
KB13603 Chuck Nelson, 881 Saratoga Ave., Brooklyn, N.Y.
KB13795 Julian Schwalb, 904 Park Ave., Albany, N.Y.
KB13894 Arnold Schnall, 152-04 10th Ave., Whitestone, N.Y.
KB14015 Bob Gregilovich, 24 No. Bridge St., Paterson, N.J.
KB14170 Lou Bonante, 270 Walton Ave., So. Orange, N.J.
KB14445 Danny Wipper, 5522 Ave. 1, Brooklyn, N.Y.
KB15302 Pat Overbaugh, 542 Vischer Ave., Schenectady, N.Y.
KB15360 Barbara Hershkowitz, 655 E. 19th St., Brooklyn, N.Y.
KB15603 Buck Jones, 69 No. Wantagh Ave., Levittown, N.Y.
KB16431 Ruth Hulse, Box 371, Centereach, N.Y.
KB16584 Raymond Hebda, 626 Indiana Ave., Trenton, N.J.
KB16526 Carl Buzymowski, 179 Sherman Ave., Trenton, N.J.
KB17103 Jim Smith, 253 Spring St., Ossining, N.Y.
KB17793 Anna Kirn, P. O. Box 666, Port Ewen, N.Y.
KB18199 Alice Jones, 69 No. Wantagh Ave., Levittown, N.Y.
KB18291 Fred Kleinberg, 3970 Hillman Ave., Bronx, N.Y.
KB18465 Joseph Stock, 153-34 78 Rd., Flushing, N.Y.
KB18989 Connie Wipper, 1055 East 56 St., Brooklyn, N.Y.
KBJ0206 Jean Holt, 314 Mountainview Terr., Dunellen, N.J.
KBJ0448 Howard Edwards, 2930 Rockaway Ave., Oceanside, N.Y.
KBJ2126 Fred Mann, 37 Cartwright Ave., Sidney, N.Y.
KCC1515 Orville Wright, 5856 Chestnut St., Phila., Pa.
KCC1998 Jim Mansfield, 103 Stamm Blvd., New Castle, Del.
KCC2517 Chuck Coates, 703 Market St., Oxford, Pa.
KCC2653 Ginger Mansfield, 103 Stamm Blvd., New Castle, Del.
KCC2716 Tom Pettigrew, 137 Maple Ave., Westville, N.J.
KCC3224 Frank Lake, 1101 Laurel Rd., Beverly, N.J.
KCC3264 Irvin Lichtenstein, 7807 Thouron Ave., Phila., Pa.
KCC4294 Raymond Obermeier, 961 AEWJC Sq., Otis AFB, Mass.
KCD0851 Virginia Lake, 1101 Laurel Rd., Beverly, N.J.
KCD1135 Frank Peterson, 1022 Old Farm Rd., Point Pleasant, N.J.
KCD1732 Dale Kephart, 55 E. Garrison St., Bethlehem, Pa.
KCD2124 Bud Thomas, Box 27, Blain, Pa.
KCD2149 Robert Huguenin, P. O. Box 131, Buck Hill Falls, Pa.
KCD2183 Jim Siglin, Canadensis, Penna.
KCD2284 Hilliard Davis, P. O. Box 8074, Phila., Pa.
KCD2387 John Styk, Box 147, Buck Hill Falls, Pa.
KCD2574 George Solomon, 1254 Second Ave., Hellertown, Pa.
KCD2649 Jack Daqui, 25 Dunsinane Dr., New Castle, Del.
KCD2949 Henry McGann, 1601 Market St., Harrisburg, Pa.
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 KHC6853 Dick Henry, 18-A Faulk Dr., Wichita Falls, Tex.
 KHC6983 Fred Cook, 726 So. Indiana, Kokomo, Ind.
 KHC7440 David Scarett, RR. 1, Hagerstown, Ind.
 KHC7626 Ronald Stephens, 5688 Connecticut, Gary, Ind.
 KHC7850 Carl McKeever, Box 106, Wolcottville, Ind.
 KHC7920 Russell Herrington, 601 S. Broadway, Urbana, Ill.
 KHC8408 Harold Bjorkquist, 8878 South 84 St., Franklin, Wisc.
 KHC8800 Terry Moser, 1609 Lafayette St., Michigan City, Ind.
 KHIC9708 Tiny Thomas, 825 South Washington, Kokomo, Ind.
 KHC9965 Frank Neunaber, 751 N. Cicero, Chicago, Ill.
 KHC9968 Jim Morin, 1310 East Oakland, Bloomington, Ill.
 KHD0075 John Garwood, 512 West Exchange, Geneseo, Ill.
 KHD0997 Lou Friedman, 4354 North Sherman Blvd., Milwaukee, Wis.
 KHD1144 Gene Stewart, 1013-1st Ave., Rock Falls, Ill.
 KHD1864 Joseph Holman, 1927 46th St., Rock Island, Ill.
 KHD2197 Gene McCarty, 5104 Rural Way, Louisville, Ky.
 KHD2389 Ed May, 842 N. 13th St., Decatur, Ind.
 KHD2875 John Beckler, Rural Rt. 1, Bluffton, Ind.
 KHD3529 John Wilson, 761 East Lincoln Ave., Decatur, Ill.
 KHD3625 Beecher Ruh, 6814 N. Oleander Ave., Chicago, Ill.
 KHD4705 George Newberry, 1027 W. Douglas St., Freeport, Ill.
 KHD5391 Jim Davis, Box 104, Linden, Ind.
 KHD5746 Bill Vanatta, 601 South Broadway, Urbana, Ill.
 KHD5777 Jim Carey, Rt. 1, Sylvan Lake, Rome City, Ind.
 KHD5915 David Swank, RR. 2, Box 214, Attica, Ind.
 KHD6217 Carl Elzy, Box 219, Dalton City, Ill.
 KHD6366 Vic Abshier, 620 Delray St., Owensboro, Ky.
 KHD6500 Bill Snyder, 511-19th Ave., Moline, Ill.
 KHD7005 Dottie Davis, Box 104, Linden, Ind.
 KHD7226 Bill Palmer, Burlington, Iowa
 KHD7287 Gary Schneider, 209 West 21 St., Connersville, Ind.
 KHD7845 Floyd Smith, 310 South West St., Alexandria, Ind.
 KHD8805 Jim Long, 918 Queen St., Lafayette, Ind.
 KHD8971 John Nortridge, 1239 S. Maple, Freeport, Ill.
 KHD9005 Ted Augman, 720 S. Clay St., Green Bay, Wis.
 KHD9156 Phyllis Ryan, 4632 Forest View Ave., Rockford, Ill.
 KHD9341 Nick Haring, 708 Fourth Ave. S., Clinton, Iowa
 KHD9349 Jim Herteen, 353 Ferson Ave., Iowa City, Iowa
 KHD9589 Gene Squier, 1450 Delray St., Pekin, Ill.
 KHD9624 John Taylor, 1103 Highland Ave., Dixon, Ill.
 KHG0943 Leonard Lantz, Box 134, Onekama, Mich.
 KHG1923 Bob Gillespie, 31805 Densmore Rd., Willowick, Ohio
 KHG4882 Mike Shaner, 3106 West Mount St., Columbus, Ohio
 KHG5994 Otto Schropp, 2450 Setland Rd., Toledo, Ohio
 KHG6668 Norm Payea, 1198 Court Dr., East Tawas, Mich.
 KHG7213 John Oswald, 1322 Lander Rd., Mayfield Hgts, Ohio
 KHG8167 Bob Dusthimer, P. O. Box 381, Danville, Ohio
 KHG9069 Herb Riggle, Rt. 5, Zanesville, Ohio
 KHG9532 Bob Engler, 1077 E. Market St., Akron, Ohio
 KHH0584 Vern Stevens, 4943 Harding Ave., Ravenna, Ohio
 KHH1667 Steve Hodges, Box 123, Frankfurt, Mich.
 KHH2306 Joe Carbone, 7731 Goldenrod Dr., Monton on the Lake, Ohio
 KHH3934 Jim Tobey, Rt. 1, Freeport, Mich.
 KHH4313 Albert Hizer, Rt. 3, Box 338A, Clendenin, W. Va.
 KHH4412 Veldon Older, 1383 Newton St., Akron, Ohio
 KH10205 Grover Patrick, 851 Mackenzie Dr., Lima, Ohio
 KH10711 Erma Phillips, Box 181-R1, Brimley, Mich.
 KH10845 Ted Fisher, 147 Poplar Ave., New Philadelphia, Ohio
 KH12703 Carolyn McClure, Rt. 1 P. O. Box 217, Yawkey, W. Va.
 KH12916 Larry Bauder, Lot 24, Owosso, Mich.
 KH12949 Donald Cowell, 2724 128 St., Toledo, Ohio
 KH12952 Bill Culver, 119 East Brooks, Howell, Mich.
 KH13151 John Smith, 318 S. Poplar St., Fostoria, Ohio
 KH13188 Ruth Lake, Rt. 1, Chesapeake, Ohio
 KH13547 Jim Harvey, 174 Curtis Rd., East Tawas, Mich.
 KH14500 Earl Cogar, Bolair, W. Va.
 KH14769 Bill Wade, 4306 Manchester Ave., Perry, Ohio
 KH15117 Bob Malone, Kimberly P. O., Kimberly, W. Va.
 KH15957 Herbert Keesecker, RD. 1, Cortland, Ohio
 KH16241 Floyd Litton, 207 Elwood Ave., Fostoria, Ohio
 KH16474 Bruce Mead, 1744 Cooks School Rd., Huntington, W. Va.
 KH17506 John Ankeney, 617 Pollock Rd., Dayton, Ohio
 KH17794 Duane Wyatt, Circle Dr., Mullens, W. Va.
 KH17987 Jim Lyons, 123 E. Church St., Urbana, Ohio
 KH18044 Marian Hill, 2050 Licking View Rd., Zanesville, Ohio
 KH18290 Bill Azar, 300 Oxford St., Sistersville, W. Va.
 KH18420 Maurice Hough, RR. 1, Van Buren, Ohio
 KH18525 Dolores Patrick, 851 Mackenzie Dr., Lima, Ohio
 KH18546 Bill Rosen, 4334 McKeel St., Latonia, Ky.
 KH19466 Smitty & Pam, 2687 Lake Shore Dr., Niles, Mich.
 KH19793 Georgia Oldaker, 602 Hagen St., Huntington, W. Va.
 KH19979 Gene Taylor, 121 N. Adolph Ave., Akron, Ohio
 KHJ0065 Donald Fox, 409 Magnolia St., Celina, Ohio
 KHJ0567 Hubert Hill, 2050 Licking View Rd., Zanesville, Ohio
 KHJ1478 Bill Brandell, 309 Denver Ave., Lansing, Mich.
 KHJ1886 Eldon Schumaker, 2790 Queen City Ave., Cincinnati, Ohio
 KHJ1962 Denis Vana, 9060 State Rd., North Royalton, Ohio
 KHJ2735 T. L. Holub, 2734 Westerville Rd., Columbus, Ohio
 KHJ2790 George Moore, 618 Pollock Rd., Dayton, Ohio
 KHJ3494 Ray Whitcomb, 316 N. Brunell St., Wauseon, Ohio
 KHJ3585 Duane Moe, 207 Union St., Parma, Mich.
 KHJ3598 Doug Meyers, 524 La Salle Blvd., Lansing, Mich.
 KHJ4747 Don Senger, 2650 Mandale, Orchard Lake, Mich.
 KHJ5083 Ruby Harrison, 911 E. Railroad, Hastings, Mich.
 KHJ6471 Don Gring, Gen. Del., Oscola, Mich.
 KHJ6575 John Makurof, 5234 Moran, Detroit, Mich.
 KHJ7020 Clinton Fritch, Frankfurt, Mich.
 KHJ7104 Bill LeClair, 305 Cedar St., Hermlock, Mich.
 KHJ7217 Raymond Smejkal, 2652A Hickory St., Glasgow AFB, Mont.
 KHJ7373 Cliff Burke, 4938 Karen S. W., Wyoming, Mich.
 KHJ7563 Mindy Holub, 2734 Westerville Rd., Columbus, Ohio
 KHJ7849 Jeff Woten, 625 Heindel Ave., Lima, Ohio
 KHJ8021 Emmet Bratt, 4228 Edgerfield Ave. N. W., Canton, Ohio
 KHJ8334 Dan Miller, Box 451, Canal Fulton, Ohio
 KIA0537 James Nagy, 7811 Bacon, Detroit, Mich.
 KIA0608 Herb Schumacher, P. O. Box 17, Lancaster, Ohio
 KIC01072 Bob Rogers, 227 Green St., Wilkinsburg, Pa.
 KIC0214 Bob Foster, 1313 18 Ave., Beaver Falls, Pa.
 KIC0918 Bill Jacobs, P. O. Box 213, Painted Post, N. Y.
 KIC2126 Richard Snively, 724 Leshar Ave., Waynesboro, Pa.
 KIC2516 James Sankovich, 9 Eicher St., Uniontown, Pa.
 KIC2553 Thurston Fleming, 327 Parsells Ave., Rochester, N. Y.
 KIC2679 Ray Logan, 19 Magnolia, Jamestown, N. Y.
 KIC2881 Mike Ripski, 72 Mooney Rd., Plymouth Twp, Pa.

- KIC3133 John Geerty, 170 Brookview Dr., Irondequoit, N. Y.
KIC3160 Jack Frey, 220 Center, Lock Haven, Pa.
KIC3347 Pat Eddinger, RD. 3, Muncy, Pa.
KIC3500 Ruthie Bopp, 350 W. 5th St., Lewistown, Pa.
KIC3538 Jack Frey, 108 North Hampton St., Lock Haven, Pa.
KIC3559 William Vandelister, RD. 2, Savannah, N. Y.
KIC3644 Bob Dykeman, 10 Butternut St., Lyons, N. Y.
KIC4611 James McCreadie, 413 Merrill St., Clearfield, Pa.
KIC4636 Geo. Goodman, 1058 Rankine Ave., Lawrence Park, Erie, Pa.
KIC4972 Joseph Strauss, 1108 Franklin Ave., Pittsburgh, Pa.
KIC5720 Bill Calvert, 1134 6th Ave., Duncansville, N. Y.
KIC5922 Jerry Guidry, 169 Whitesboro St., Yorkville, N. Y.
KIC6115 Jim Wall, Star Route, Oxford, N. Y.
KIC6258 Rosario Cavallaro, 233 Prichard Ave., Corning, N. Y.
KIC6334 Roger Gaborski, 110 Baird St., Rochester, N. Y.
KIC6708 Robert Boyd, 102 Williams Ave., Westville, N. Y.
KIC7196 Ted McClain, 1111 5th St., New Brighton, Pa.
KIC7999 Doug Wingate, RD. 1, Hammondspott, N. Y.
KID0007 Fred Martz, Hustontown, Pa.
KID0186 Michael Reshetar, 102 1/2 Walnut, Binghamton, N. Y.
KID0322 Salty Saltsman, 22 E. Pine St., Gloversville, N. Y.
KID0343 Marcus Downes, Fort Littleton, Pa.
KID0507 Harry Nortons, 2536 Colonial Rd., Monaca, Pa.
KID0968 Pauline Zugner, 117 MacArthur Dr., Rome, N. Y.
KID1294 John Grierson, 46 Kohlman St., Rochester, N. Y.
KID1328 Ron Conley, 45 Murray St., Rochester, N. Y.
KID1431 Louis Lamanna, 10124 Frankstown Rd., Pittsburgh, Pa.
KID1668 James DeRenzo, 163 West Genesee St., Clyde, N. Y.
KID1773 Ruby Vandelister, RD. 2, Savannah, N. Y.
KID1932 Ken Carr, 4583 Verona St., Vernon, N. Y.
KID1940 Don Clark, 1206 Outlook St., Natrona, Pa.
KID1971 Lulu Frey, 108 North Hampton St., Lock Haven, Pa.
KID2225 Dave Helfrick, RD. 3, Fayetteville, Pa.
KID2617 George Thayer, P.O. Box 23, Burnt Cabins, Pa.
KID3387 Dick Rogers, 2895 Rogers Rd., Rd. 2, Allegany, N. Y.
KID3504 James Colonio, 505 1/2 Magee St., Watkins Glen, N. Y.
KID3823 Dick Compton, RD. 1, Painted Post, N. Y.
KID3933 Glenn Reed, 2 Greens Court, Bradford, Pa.
KID4353 Tom Becht, 903 McConnell Ave., Erie, Pa.
KID4615 Jim Brown, 137 E. Hudson St., Elmira, N. Y.
KID4792 Dave Wilhide, 35 Cottage St., Waynesboro, Pa.
KID4823 Jack Vitvitsky, Box 5098, Rochester, N. Y.
KID4964 Amos Hennigan, 53 Riverside Dr., Canton, N. Y.
KID5092 Ken Boner, 140 Nevins St., Kunkirk, N. Y.
KID5225 Harry Platt, RD. 1, Shaw Rd., Conklin, N. Y.
KID5241 Bob Rounds, Tribes Hill, N. Y.
KID5656 Dave Barber, 19 E. 30th St., Erie, Pa.
KID5676 Marion Boyd, 102 Williams Ave., Wellsville, N. Y.
KID5924 Jack Stumpf, 119 Bonifay St., Pittsburgh, Pa.
KID5968 John Norman, Box 249, Watkins Glen, N. Y.
KID6144 Julia Budesky, 147 Mory Place, Greensburg, Pa.
KID6404 Stanley Panasewicz, RD. 2, Hunlock Creek, Pa.
KID6414 Bruce Robbins, Rt. 3, Dundee, N. Y.
KID6510 Fred Dash, 314 W. 3rd St., Erie, Pa.
KID6511 Neil Converse, RD. 2, Allegany, N. Y.
KID6862 Reid Hackney, 442 S. Richard St., Bedford, Pa.
KID7171 Cliff & Dino, 1012 Raspberry St., Erie, Pa.
KID7204 Jerry Tobey, RD. 1, Bradport, N. Y.
KID7290 Bill Stephens, 1402 Spruce St., Hollidaysburg, Pa.
KID7384 Estelle Norions, 2536 Colonial Rd., Monaca, Pa.
KID7673 Julius Altman, 258 E. Market St., Wilkes-Barre, Pa.
KID7730 Greg Funk, 215 West 2nd St., Waynesboro, Pa.
KID8032 Carl Knight, 253 West Washington St., Bradford, Pa.
KID8310 Henry Taylor, RD. 1, Bradford, N. Y.
KID8874 Dick Bush, P.O. Box 145, Watkins Glen, N. Y.
KID8896 Dorothy Converse, RD. 2, Allegany, N. Y.
KID8898 Nancy Dash, 314 W. 3rd St., Erie, Pa.
KID8981 E. F. Lewis, 139 Pearl St., Corning, N. Y.
KID9087 G. F. Winters, 205 1st St., Beaver, Pa.
KID9131 Erwin Zmarzly, 4210 Kileea Dr., San Antonio, Tex.
KID9203 Frank Kowalski, RD. 2-Ceasetown, Hunlock Creek, Pa.
KID9689 Bruce Ryan, Spencerport, N. Y.
KID9696 Jim Root, Star Route, Oxford, N. Y.
KID9760 Don Boehm, 27 Carlton Ave., Falconer, N. Y.
KID9885 Douglas Rarick, 814 1/2 E. 5th St., Elmira, N. Y.
KID9889 Greg Ruvolo, 200 N. Decatur St., Watkins Glen, N. Y.
KIE0200 Howard Clugstone, 46 Valley Rd., Beaver, N. Y.
KIE0359 Esther Rogers, 2895 Rogers Rd., Allegany, N. Y.
KIE0370 Elton Shaw, 718 Oak St., Elmira, N. Y.
KIE0488 Glenn Trucking, Shade Gap, Pa.
KIE0630 Chris Hall, RD. 2-Box 16, Altoona, Pa.
- KIG0307 Arthur Tanaka, 91-270 Fort Weaver Rd., Ewa Beach, Hawaii
KJC0278 Rick Kelley, P.O. Box 263, Spring Lake, N. C.
KJF0108 Paul Cohill, P.O. Box 5501-B, Washington, D. C.
KJF0140 Roger Hollendursky, P.O. Box 5501, Washington, D. C.
KJF0275 Ronald Edmonds, 1866 California St. N. W., Washington, D. C.
KJ10089 Stued Brimmer, 421 1/2 Delevan Ave., S. Corning, N. Y.
KJ10285 Barb Koehler, 214 E. Penn St., Bedford, Pa.
KJ10350 Herb Palmieri, 100 Maple Ave., Saratoga Springs, N. Y.
KJ10457 George Smalley, Box 180, Montour Falls, N. Y.
KJ10694 Clarence Plummer, 216 N. D'wight Ave., Endicott, N. Y.
KJ10698 Shirley Rarick, 814 1/2 E. 5th St., Elmira, N. Y.
KJ10717 Harry Schouten, 200 N. Jackson St., Watkins Glen, N. Y.
KJ10742 Dennis Swartz, Box 223, Orbisonia, Pa.
KJ10811 Lloyd Twedt, 330 Crescent Ave., Buffalo, N. Y.
KJ11090 Bill Stroud, 5 Crestwood Rd., Corning, N. Y.
KJ11212 Lonnie Dent, 57 Amm St., Bradford, Pa.
KJ11327 Eleanor Panasewicz, W. Nanticoke Hgts, RD. 2, Hunlock Creek, Pa.
KJ11415 Donald Smith, Broadacres Hosp., Utica, N. Y.
KJ11696 Cedy Palmieri, 100 Maple Ave., Saratoga Springs, N. Y.
KJ11765 Frank Thayer, Box 32, Bt. Cabins, Pa.
KJ11893 The Denko's, 37 Saratoga Trailer Ct., Saratoga Springs, N. Y.
KJ12044 Eugene Reasor, 704 W. 2nd St., Watkins Glen, N. Y.
KJ12081 James Stoner, Box 34, Newton Hamilton, Pa.
KJ12092 Edward Smith, Rear 307 State St., Nanticoke, Pa.
KJ12229 Kenneth Berrier, Fayetteville, Pa.
KJ12255 Jim Calvert, RD. 1, Duncansville, Pa.
KJ12293 Frank Dykemans, 339 Harter St., Herkimer, N. Y.
KJ12824 Oscar Lee, Box 605, Westfield, Pa.
KJ12893 Isabel Ripski, 72 Mooney Rd., Plymouth Twp., Pa.
KJ13076 Dom Mizion, 176 State St., Corning, N. Y.
KJ13152 Ken Cummings, P.O. Box 265, Watkins Glen, N. Y.
KJ13337 Stanley Penc, 1524 Mt. View Ave., Utica, N. Y.
KJ13157 Phil Dedominicks, 213 7th St., Watkins Glen, N. Y.
KJ13439 Joe Winters, 205 1st St., Beaver, Pa.
XM11133 Dave Forman, 5184 Joyce St., Vancouver, B. C., Canada
XM11958 Louis Boda, P.O. Box 3, Hope, B. C., Canada
XM15065 Ben Biro, 295 Basset St., Penitenti, B. C., Canada
XM411520 Al Moody, 128 Morden Rd., Oakville, Ont., Canada
XM411700 Dave Masmak, 2263 Dundas St. W., Toronto, Ont., Canada
XM411808 Michelle Moriarty, 245A Gary Dr., Weston, Ont., Canada
XM441237 Clare Metcalf, RR. 1 Petrolia, Ont., Canada
XM49405 John Burnup, 926B Cummings Ave., Ottawa, Ont., Canada
XM49393 G. Facer, 924 Cummings Ave., Ottawa, Ont., Canada
XM49489 Sylvia Facer, 926 Cummings Ave., Ottawa, Ont., Canada
XM53845 Franklin Lee, 2378 Ouest, Rue King, W., Sherbrooke, Quebec
XM56147 Jean Pion, Notre Dame Mercie, Montcalm, Quebec, Canada
XM63108 William Halo, 201 High St., New Glasgow, N. S., Canada
XM65150 Vaughan DeMerchant, Box 13, Perth, Canada
Atl. 685 Bobby Morehead, Rt. 2, Shelby, N. C.
Atl. 787 Bob Malone, Kimberly P. O., Kimberly, W. Va.
Atl. 820 Johnny Pearson, 1204 Ashwood Ave., Nashville, Tenn.
Cent. 1490 Bill Keilman, 413 West 7th St., Connorsville, Ind.
Cent. 1945 Ron Hirst, 1497 Westvale Ave., Akron, Ohio
North2125 Geo. Thayer, Box 23, Bt. Cabins, Pa.
North2727 Don Dresser, 927 Paulding St., Peekskill, N. Y.
North2728 Howard Moss, 82-56 189th St., Jamaica, N. Y.
North2753 Raymond Hebdia, 626 Indiana Ave., Trenton, N. J.
North2811 Bob Drapeau, 6 Mayhew St., Hopkinton, Mass.
Pac. 576 Dave Miller, 1821 Laine Ave., Santa Clara, Calif.
Pac. 644 Little Fox, P.O. Box 805, Oxnard, Calif.
Sout. 227 John Fulford, 440 9th St., West Palm Beach, Fla.
K0DDOM Sid Kirtrell, 809 Carlos Dr., Lincoln, Nebr.
VE1PE2D D. H. Belliveau, Box 213, New Glasgow, N. S. Canada
WA9AFC Dale Woods, 733 East Pine, Canton, Ill.
WPE1FBP Rocky Clayman, 385 Lowell St., Lawrence, Mass.
WPE1ENG Friendly Murabito, 3 Temple St., Lawrence, Mass.
WPE2JPN George Masny, 299 E. 8th St., New York, N. Y.
WPE2KME John Patols, 131 N. 2nd St., Paterson, N. J.
WPE2LLY George Thayer, Burnt Cabins, Pa.
WPE3FKJ Larry Ruth, 622 New Holland Ave., Lancaster, Pa.
WPE4HHG Bob Morehead, Rt. 2, Shelby, N. C.
WPE4HIV John Street, Box 275, Niceville, Fla.
WPE5CBD Richard Little, 4140 Winfield Ave., Ft. Worth, Tex.
WPE6EJJ Harry Okey, P.O. Box 1526, La Jolla, Calif.
WPE6EVJ Greg Smith, 1232 Graynold Ave., Glendale, Calif.
WPE8GDZ Bob Malone, Kimberly, P.O., Kimberly, W. Va.
WPE9EAG George Eaton, RR. 1, Bayfield, Wis.
Bill Frankesfield, Box 1103, Tryon, N. C.
Richard Brown, 1321 Cherokee Rd., Florence, S. C.



CB CHIT-CHAT

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

Address correspondence to:

**JOHN KREJC, KB18077
60 DIVISION AVENUE
GARFIELD, N. J.**

ATTENTION ALL A.P.R.E.'s.

Recently, through the efforts of S9, Club Editor, John Krejc, we can offer to the A.P.R.E. staff, a choice of A.P.R.E. decals for your auto, etc. Also on the drawing boards is an A.P.R.E. button, to show-off at Jamboree's, club meetings, and social events. Naturally there is a small charge for both. Further information contact: S9, Club Editor, John F. Krejc, KB18077, 60 Division Ave., Garfield, New Jersey.

Also there are a few openings in the A.P.R.E. staff. Please write the above address if interested. We're especially interested in getting new S9 reporters in the following call areas: 12, 13 and 14.

A.P.R.E. PROFILE

Ralph H. Harter, KHB2574, better known as the "Hair Pin and Chewing Gum Station of North Grove." Ralph, his wife, Sally, and their 3 charming daughters, Deanna Kay, 15; Tina Rae, 14; and Sandra Sue, 12 reside in their home which Ralph built recently. We hear that Ralph's wife is expecting shortly (early August). Don't forget the cigars, Ralph. Ralph is employed at Haynes Stellite Corp.



(Division of Union Carbide Corp.) since 1950. The firm is located in Kokomo, Ind. Ralph was an avid coin collector until Sept. 1962 when he first came on the air as a CB'er. His CB activities have since mushroomed until it now takes up all his spare time as a hobby. He is a member of many CB clubs in his area, and whenever his wife can join him, they hop-in the old fliver and try to attend as many various club meetings as they can. Ralph also tells us that the family loves to drive and see new and distant places. Ralph's address is R. #1, Box 37-A, Amboy, Indiana.

New appointments to the A.P.R.E. program this month include: Thomas Summa, KBG4334, 310 Schepis Ave., Saddle Brook, New Jersey; James Buffington, 115 Highland Ave., Aberdeen, Mississippi, D. H. Fuson, KFF0171, Route 1, Box 80, Aumsville, Oregon; Robert Vincent, KCC3308, 1603 Edgewood Ave., Westville, New Jersey.

NORTHERN

The Alleghany County Radio Emergency Service was formed over two years ago, for service to the community of Wellsville, N. Y. In their two years, they have assisted in such emergencies as lost youths,



Pictured above is John Taylor, KID5912, Greensburg, Pa., dispatching one of his trucks to a job. Atlantic Refining Co. Sales Representative, William G. McKelvey, KID4974, listens in.

the state police in accidents, several runs to an out of town hospital for emergency medicine, and have manned the CD equipment here, including the full track, the weasel, and the emergency truck. The club has also started a newspaper called "10-99." News of the group comes from Bod Byd, secretary.

COMING EVENT—The Town and Country CB'ers are sponsoring a Jamboree, July 3rd, 4th and 5th at the Fairgrounds in Hemlock, New York. More info will follow. Any CB club or individual desiring info about the Jamboree, may contact either Carl Gilbert RD. #1, Dansville, N. Y. or Art Kretschmer, Leicester Road, Caledonia, N. Y.

Officers for 1964 of the Norwalk Citizens Band Radio Association are President, Richard Marks, KBA8831; vice president, Herb Smith, 1Q5179; Secretary, Bill Fisher, KBB0201; Treasurer, Floyd Taylor, 1Q0527; and Fin. Secretary, Larry Frazier, Sr., KBA7958. The NCBRA conducted their first annual Dinner-Masquerade Dance recently, with great success.

Recently the Cross County CB League held its 1964 elections. President, Stan Paleologos, KBG6811; vice president, Harry Behagen, KBG1853; Corresponding Secretary, Frank Lapple; Treasurer, Russ Paquette; Financial Secretary, Paul Price, KBJ1921; Chaplain, Joe D'Arta, 2W2887 and Sgt. at Arms, Bill Smith, 2Q5916. The club has only been in existence one year, but during that year has sponsored a CB Jamboree which was held last August. They drew over 600 CB'ers from, N.Y., N.J. and Conn. They have also responded to several calls for assistance from mobiles stranded in various parts of Long Island. The club monitors channels 12, using channels 3 and 20 as emergency standby channels.

A newly organized club from the second area is the Metropolitan Radio Communications. The club was formerly organized under a different name but voted to be separated from the parent club. Officers of the new unit includes Vice President, Lou Fiola, KB17928, Secretary, Mike Borisuk, 2A5880, Treasurer, Elmer Molnar, 2W4250. The Metropolitan club is connected with the Passaic County Sheriff's Dept and will consider local CD units. Past president of the club is Frank Robinson, 2W7574. Also an immediate past president is Bert Endress, 2W9623. The unit will



hold a dinner for the Treasurer Elmer Molnar, 2W4250, shortly.

From Seth Paull, S9, A.P.R.E. comes the news of an explosion at the Thompson Chemical Works in which REACT—No. Prov. units were asked to stay at their bases until they were needed. KBA5366 and others responded after a police request. Brockton REACT responded. Channel 9 and 6 were used. Many CB'ers helped aid police and local residents. The rumors have it that the CB'ers did a great job, but only after a slight mix-up. Mrs. Robert Budreau, we hear, of the Prov. REACT Control did a good job. Everyone was asked to keep channel 9 clear and all cooperated until long after midnight.

Received a new club paper called—5 Watt Gazette, from the Blair Cambria Citizens Radio Association. President of the club is Charles Sutcliffe, 20W2888; vice president Raymond Johnson, Sr., 20W7325; Treasurer, Blair Knepp, 20W2746; Secretary, Raymond Johnson, Jr., 20W7325. Co-editors of their fine paper is John Mutzabaugh, KID6235, Randy Patton, 20Q2175. Feature writer of the club paper is Raymond Johnson, Jr. 20W7325.

Officers for 1964 of the Capital District Citizens Band Radio Club are: President, Gil Randall, 2W-4027; vice president, Isabelle Sauer, KB12478; Recording Secretary, Elsie Leonard, 2A4813, Corr. Secretary, Joan Markes, KBG-0202 and Treasurer, Carl Prince, 2W6499.

Joan Markes, KBG0202 and Treasurer, Carl Prince, Miss Joan Lepkowski, KIC4649, 99 Elkhart St., Lackawanna, New York, has a strange hobby in collecting club decals. She has collected many from her area, and now wants to branch out to increase her collection. Any clubs having extra decals, I'm sure Miss Joan would like to receive them. This writer will contact Joan, and probably exchange some that S9 doesn't have. Good luck, boys. Joan also has a Part 15 call, Northern 100. Quite fitting.

COMING EVENTS—The CB Socialites Radio Club of Plaistow, N. H. is planning and sponsoring the 1st Annual State of New Hampshire Jamboree. This will be a 2 day event and will be held on August 8th and 9th, Saturday and Sunday. More info to follow. Information could be had from: CB Socialites, P.O. Box 336, Plaistow, N. H.

Officers of the Sociable 5 Watts Club are President, Roy Shelter, 20W7473; vice president, Paul Hamilton; KID2878 Treasurer, Robert Foster, KIC0214; Ass't treasurer Chuck Auld, 20Q2007; Secretary, Ruth Vogler, KIC2808; and Ass't Secretary, Delores Foster, KIC0214.

SEE THE NEW CLUB OFFICERS OF YOUR CLUB IN THE BIGGEST CB COLUMN ANYWHERE.

1964 club officers of the Citizens Band Association of Connecticut, Inc. are President, C. F. Collins, 1W4265; Vice President, Edward Laposka; Executive Vice President William Kates; Secretary, Whitney; Treasurer, Alan Buckridge. Good luck to the club and a special hello to C. F. Collins.

Newly reporting, Citizens Emergency Radio Club, has recently re-organized and has a membership of 100. The club is from the Utica, Rome and surrounding areas. The club meetings are held on the first Friday after the 15th of each month, alternating in Utica and Rome, New York. President is Tom Little, 20Q4550; Vice President, Tom Race, KIC5533; Secretary, Norma Kashuba, KIC3061; Treasurer, Lillian Golden, KIC0730 and Sgt. at Arms, Lee Martin, 20W7353. The club also has a decal, which will appear in coming issues.

The Citizens Emergency Radio Service marks its 3rd operational year with a present membership of 28. The primary object and purpose of this organization is, and shall be, to be available at any and all times, to assist the divisions of CD, especially during a period of emergency as declared by the Director of CD, City of Yonkers, New York. President is Al Heady, 2Q2693; Vice President, Dave Rosen, 2W-7154, and Secretary-Treasurer, Bob Fuller, 2Q4133. Civil Defense Coordinator for the group being Hank Klatt, KB18192, and CD officers are Bill Begany, 2W2169 and Bob Fuller, 2Q4133.

COMING EVENT—The 5th Annual Club CB Family Picnic of the Five-Eleven Radio Club, Inc. will be held on September 13th at White Swan Park, Parkway West, near the Greater Pittsburgh Airport, Allegheny County, Penna. Should be better than last year.

The Susque Coffee Pot, club paper of the Susque CB Radio Club, Pa., is sporting a new look. Editors of the publication is Bob Ott, KID8758 and Joe Warner, 20Q0166. Circulation Mgr. is Paul Werner, 20Q-5193. Let's see some pictures from the group, Bob.

The Volunteer Emergency Service Units of the City of Pittsburgh will work with the staff of the Passavant Hospital here in Pittsburgh, in moving its facilities to a suburban section of this city. The transferring of all records, equipment and patients across the city will involve the use of CB Radio in coordinating the movement through heavily traveled arteries in an uninterrupted caravan. Not only will the caravan traverse the City of Pittsburgh, but will also pass through several smaller communities on its trek to the new location in the North Hills area. News of the venture comes from J. B. Schiller, 20W8450, public relations officer.

The Glen Falls Area CB'ers, Inc., cover 3 counties in the northeast New York State. The club monitors 24 hours a day for emergencies. They are with the Warren and Washington County CD and are called by the Warren and Washington County Sheriff's Dept. Also the State Police uses the club when possible. Some of their members are with the "38 Specials," an emergency squad that is sponsored by the Washington County Sheriff's Dept. and CD. The group is trained for all emergencies plus being Special Deputy Sheriffs.

The Thames Valley Pioneers Chapter of M.C.E.U. elected their 1964 officers. President, George Deveau, 1W8215, vice president, E. H. Poreda, KBD2888. Secretary Roger Rondeau, KBA1Q0086; Treasurer, Mary Deveau, KBA0523. The club to date has a membership of 31.

Officers for 1964 of the Citizens Band Radio League, Lebanon, Pa. are: President, Don Moyer, KCC2243; Vice President, Jim Talley, 3W1435; Treasurer, Bob Matterness, 3W0559; Secretary, Pat Talley, 3W2544.

The Bethel CB Monitors officially organized November 4th, 1963 in Bethel, Maine. President, John Brown, KBD0151; Vice President, Errol Donahue, KBC6733; Secretary, Barbara Godwin, KBD1708, Treasurer, Eldon Greenleaf, KBD1570; and Ass't Coordinator, Thomas Kennagh, KBD0971. The club has been quite active in the past few months, serving during the dry season as active Fire Patrol. Membership of a REACT Team has been OK'd for this area and teams are in the process of being organized, tells Barbara Godwin. A road sign committee has also been organized with the idea of making and placing signs on route entering Bethel of their stand-by and possible emergency channels. They hope this will assist tourists going through and make them aware of CB in the area.

COMING EVENT—Second Annual State of Massachusetts CB Jamboree sponsored by the Five Watt Whips of Lowell, Mass., will be held July 19th. More info coming.

Recently organized is the Granite State CB Club Inc. At present the membership is 37. The club en-

joys membership from all over the State of New Hampshire. It is intended to coordinate CB activities in the state and to increase the use of CB for the good of all members, persons and civic groups, and to stimulate its members toward progressive thinking and positive action in the realm of CB. President of the group is John Sykie, KBC0959. Vice President, John Sims, KBB0348; Treasurer, Barbara Sanborn, KBC3457; Secretary, John Cahoon, KBC6222.

ATLANTIC

Plans are now underway to aid young Iredell County teenager, Jimmy Foster, who is paralyzed from the waist down as result of an automobile accident. John Cline, president of the 10/100 Volunteers of the Cool Springs Volunteer Fire Department, said members of the 10/100 club hope to raise enough funds to purchase a CB radio for young Jimmy's use so he can keep in touch with persons throughout this area. The 10/100 club is an organization that provides emergency radio communications in Iredell County, Statesville, North Carolina. So two dozen units are in operation, most on a 24 hours basis. The organization started when several volunteer firemen thought about two-way radios in their cars in case of an emergency. It moved from there. In an emergency, the radios have proven their worth many times. Lots of luck to the group from the S9. Club Editor on raising the funds. Also Metrotek Electronics, Inc., will sell a set to the club at manufacturers cost. How about that!

The Monitors Radio Club of Newport News, Va., officially started about 10 months ago with 5 members. The club has present membership at 14. They have participated in many community events, one of which was to make-up 3000 door to door campaign envelopes and distribution of 1000 containers to business firms for the Muscular Dystrophy fund raising drive. The club boasts to be the only one in the state holding their meetings in the daytime, in fact in the mornings. The club is a member of the Va. State

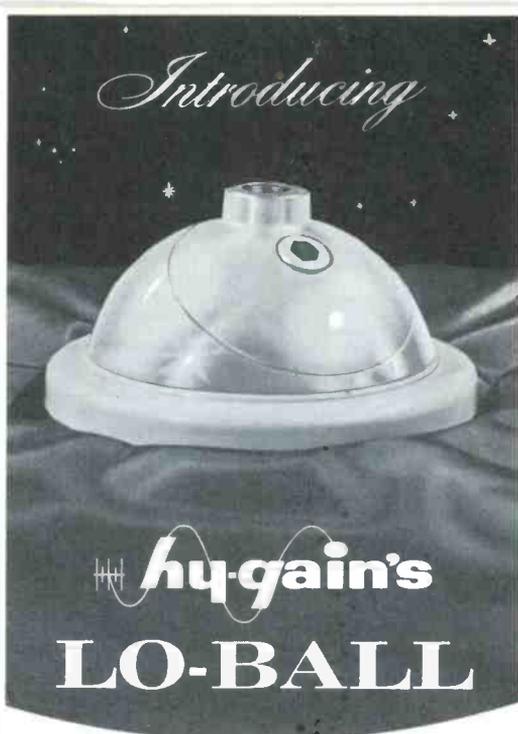


Yes, it's that guy again, John March, KCG2967, Secretary of the Fairfax-Prince William CB Club, saying to his wife that John Krejc, S9, Club Editor is not home. We were, but we didn't answer the door. John and his wife had dinner with us, but ask him who ate all the meat-balls. . . .

Citizen Band Radio Association and the nation-wide REACT Unit. Officers are Harold Williams, KCI6631, President; Joe Doneson, KCJ0921, Vice President, Jim Rawles, KCI2904, Secretary; and Bill Brackenridge, KCJ5123, Treasurer. The unit meets the 1st Wednesday of each month, and all visitors are welcome.

COMING EVENT — State-Wide Jamboree to be held in Birmingham, Alabama, at Camp Cosby on June 6th and 7th. This is to be a state-wide jamboree with help from all clubs in the state invited. There will be a swimming, boating, fishing, refreshment,

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soft drinks and prizes each hour. The grand prize each day will be a pair of Brownings. Drawings for the grand prizes will be at 5:00 p.m. each day, and you must be present to win. No alcoholic beverages will be allowed! For further information contact, S9, A.P.R.E., J. Pat Pike, P.O. Box 7501, Birmingham, Alabama.

The Atlantic Contact Radio Association is a group of CB'ers who enjoy doing something good for their city and community. The club is two years old and has about 100 members. Recently the club was called out, under the director of Civil Defense to aid in finding a plane that had crashed in a wooded area. For several months, Contac has been offering a service which is welcomed by all. It is called **CONTAC EXPRESSWAY AID PATROL**. Drivers in distress on Atlanta's expressways need not hit the panic button these days. A new radio-equipped Expressway Patrol is cruising the main traffic arteries into the city every night, to bring aid to stranded motorists. The Expressway Patrol is a public service project of the Atlanta Contact Radio Ass'n, working under the auspices of the Atlanta Traffic and Safety Council. President of the club is Don Spencer, KDB2416. Jean Adkins, Publicity Director, will keep this writer informed on the goings on in the club.

The Citizens Radio Assistance Club, Inc. of Huntsville, Ala., announces their 1964 officers. President, Louie Weeks; Vice President, Laverne Putman; Secretary, Claudia King; Treasurer, Gerry Duncan. The club monitors channel 9 and channel 15 is their emergency channel. The members voted as a unit to join the CD. The club in addition is taking the CD First Aid course. The club is quite proud of their past records in assistance.

COMING EVENT—The Chesapeake CB Radio Club will sponsor the Maryland Annual Jamboree, which will be held May 23rd and 24th at Havre de Grace, Maryland. More info can be had from The Chesapeake CB Radio Club, 260 Wilson St., Havre de Grace, Maryland. President of the club is Cordelius Hathaway.

Well, John March its about time. . . . Yes, the Fairfax-Prince William CB Club has printed their own little club publication called, "CHANNEL 15." Good luck fellows, and welcome to the club.

Recently reorganized is the South Georgia CB'ers, was set up not only to serve just the CB'ers, but to serve in public interest. The club has set-up a 24 hour monitoring station to assist mobiles passing through the Brunswick area. The club now has a membership of 22 and growing. Lowell Shaw, KDD6101 is Editor of their publication, "The CB Monitor." Remember mobiles, the coffee pot is always on.

The Lake City CB Club of Marion, N.C. recently elected the following officers for 1964. President, Alex Smith, KDD1725; vice president, Charles Street, KDB 0326; Secretary, Janell Eekinrod, KDD7344, Treasurer, Beach Wilkerson, KDB2210.

COMING EVENT—The Central Tarheel Citizens Band Radio Club, Sanford, N. C. is planning a CB Jamboree, April 11th. They expect about 1000 to 3000 to attend. More info from J.Q. Bullard, KCI 6146, Central Tarheel CB Club, 809 Hawkins Ave., Sanford, N. C.

COMING EVENT—The Donelson CB Radio Club, Inc., located in historical metropolitan Nashville, Tenn., is sponsoring a CB Jamboree the 27th and 28th of June. More info write P.O. Box 2310, Donelson, Tennessee.

Letter from Lt. Secretary Ronald Edmonds, Sr. KJF0275. I am speaking in behalf of the members of the Emergency First Aid Squad of Washington Metropolitan Area asking that you print in your column about our unit and the fact that we would like to request that the CB'ers in our area respect our wishes that channel 22 be held as an emergency channel for our group as we are helping the motorist, pedestrian, and law enforcement agencies as best we can. Our members are being trained in first aid, water safety, fire prevention and other forms of accident prevention and maintenance.

The Atlantic Contact Radio Ass'n will assist the "SOS" (Sabin Oral Sunday) vaccine drive during February, March and April. The vaccine will be set-up at schools in the Atlanta area. There are 59 schools involved and **CONTAC** will provide **FREE** rides to and from schools in Atlanta for persons unable to get transportation by any other means. Another great project by the group.

The Queen City 5 Watters recently held their election of officers for 1964. Director, Richard Long, KCF0986; Ass't, Director, Thomas Wegman, KCF1580; Secretary-Treasurer, Richard Mawhinney. The officers pledge to do their best in promoting better CB communications in the area. The clubs monitoring channel is 9. They are conducting a huge membership drive. A private survey showed many local CB'ers do not belong to a club.

The club recently held a social event for all CB'ers and their friends around the Cumberland, Maryland area. Their monthly club paper is called, "5 WATTS."

PACIFIC

Officers of the CB Minutemen of Washington, Inc., for 1964 are: President, Jim Bossart, 14W1491; Vice President, Les Warriner, KFJ2343; Recording Secretary, Til Warriner, KFJ2343; Treasurer, Juanita Cox, KEG0553; Sgt. at Arms, Marv Fitch, 14Q1286 and Robert Osbjornson, KFI1599.

FLASH! Be sure to attend the **GIANT CB CONVENTION** at the Edmond Meany Western Int'l. Hotel, 45th and Brooklyn Sts., Seattle, Wash., on April 25th and 26th. Equipment displays, free gifts and prizes, guest speakers, free baby sitters, many other events. Registration is \$15 for 2 persons. Also included in fee is Semi-formal dance with live music Sat. nite, a prime rib banquet dinner on Sunday afternoon, and a Sunday morning pancake breakfast. After April 18, registration will be \$20 per couple. Additional information and registration from: "Convention," 1822 N.E. 169th St., Seattle 55, Wash, Standby channel 9. All CB'ers welcome, regardless of club affiliation. Be sure to stop by the special S9 Magazine booth and say hello to our west coast rep, Don Kohler, 14W1182.

SOUTHERN

The Hialeah Communications Radio Club of Hialeah, Florida, reports of its new meeting place and meeting dates. Their new meeting place is the Hialeah Moose Lodge, and meetings are held the first and third Monday of each month at 8:00 p.m. Visitors are welcome. Officers for 1964 are: President, Del Ekenbarger, KDI0982; Vice President, Louis Ross, KDI4016; Treasurer, Beatrice Amardi, KDI3307-Unit 4; Secretary, Nancy Ekenbarger, KDI4080. The club monitors channel 9. Anyone desiring more info can contact the Secretary at 881 S.E. 8th St., Hialeah, Florida. As they say, "come on down."

COMING EVENT—Several hundred CB'ers from throughout Dixie are expected to converge on Aberdeen, Sunday, May 17th, for the Midsouth CB Jamboree. The event will be staged by the Monroe County CB Rangers. Site for the Jamboree is Stinson Skyport, located on U.S. Highway 45, one mile north of Aberdeen. The club's headquarters, a former airport administration building, will serve as the center of activities. General information and motel reservations can be had by writing to Jamboree, 115 Highland Ave., Aberdeen, Miss.

1964 club officers of the Gainesville, Florida CB Radio Club: President, Charles Mathis III, KDI1949; Vice President, Ray Dean, KDH2372; Secretary-Treasurer, Ken Winters, KDII044. The club has 2 meetings per month, the first Wednesday of each month is designated as the business meeting, the 2nd held sometime near the end of the month is a social event put on by 2 different members each month. The club membership (active members) now stands at 36 with new members joining each meeting. The club has been in existence since the fall of 1962, but is just getting around to being a club with the motto: "Ask not what you can do for the club, but what the club can do for you. News of the newly reporting club comes from Dozier B. Hendry, KDI3426, acting club reporter. Thanks.

From CenLa CB Radio Club, Alexandria, Louisiana, comes the news of their new club officers for 1964. President, Joe Voorhies, KEB3764; Vice President, Bob Brewer, KEA0115; Secretary Jim Smith, KEB-

2291; Treasurer, George Belcher, KEH5491. The club monitor's channel 11 and hold their general meetings the 2nd Wednesday of each month. Officers meetings are held the 4th Wednesday of the month. Information about joining the group may be had by writing: Bob Brewer, Rt. 2, Box 529Y Pineville, La.

The CB Monitors, Killeen, Texas, boast a membership of 28, and is lead by their president Jessie Shell, KDD6102. The club meets the first Friday of each month at the Harker Heights Fire Station. During the month, they have coffee calls in which all CB'ers in the area are invited to attend. Usual coffee, cake and door prizes can be expected.

The West Coast Mobile Patrol, St. Petersburg, Florida, is a volunteer organization, and works as the helping hand to all enforcement agencies throughout the counties. Their personnel are untrained and are trained in many fields namely, "traffic control, first aid, information bureau, and other fields." News of the organization comes from Laurence L. Kirk, Ass't Chief, W.C.M.P.

CENTRAL

1964 officers of the Elwood CB Club are President, Jim Curtis, 18A4120; Vice President, Fred Mitchell, KHA2876; Treasurer, Penny Busby, 18A9299; and Secretary, Jean Ramey, KHC8270. The club calls their club paper the, CEE BEE HETERODYNE. For the benefit of CB'ers traveling through the Elwood area needing road direction, weather data, or any help, the club monitor channel 9. Club meetings are held the 1st Sunday of each month, 2:00 p.m. Meetings are held at various locations, so give a shout on channel 9.

The Midwestern CB Club of Howard County met recently with the installation of officers being the main business. About 60 people attended the meeting. From the 15 CB'ers who attended the first meeting a year ago, the club was proud to celebrate after the meeting its 1st anniversary and was happy to announce it has grown to a membership of 80. This does not include the 11 applications now on file for approval. The club monitors channel 11, and is ready to serve the traveler any time in distress. They hold their monthly meetings the 2nd Wednesday of each month at the Highland Park in the beautiful Pavilion Bldg. Time: 6:30 p.m. All guest and CB'ers are welcome.

COMING EVENT—Area QSL Card Swap Jamboree for May 3rd. Time will be 11:00 p.m. to 5:00 p.m. More info again will come from S9, A.P.R.E., Ralph Harter, KHB2574. The Jamboree will be sponsored by the Midwestern CB Club.

From Stephen Hodges, KHH1667, Secretary of the Benzie-Manistee County CB Club reports that the club is fairly new and boast present membership of 20. The club also has an emergency squad for needs in their community.

Recently police and fire officials contacted Capt. Barker, 17Q1379, of the Salvation Army Emergency CB Team, that a 4 passenger plane had hit the 28th floor of the Kansas Telephone Company Bldg. 6 members of the team, Bill Brown, 17Q2552, Joe Fehaley, 17W4711, Bill Hugher, KGI1193, Lewis Wilson, KGI-6081, Bill Roach, KGI3140 and Ray Barnes, KGH4356 were on duty within a short time running the Army canteen and aiding in traffic control. The accident occurred in a blinding snowstorm and CB communications were invaluable due to the poor visibility.

COMING EVENT—The Kishwaukee Radio Club will hold its annual CB and Ham Swap Fest on Sunday, May 3rd at the Hopkins Park Shelter House on Illinois Route 23 on the north side of DeKalb, Ill. For more info write: Al Brand, Box 415, East Sycamore Street, Sycamore, Ill.

Officers elected for 1964 of the Cedar Rapids Citizens Radio Club are: President, Carl Leitner, 18B-2480; Vice President, Bob Siex, KHC3792; Secretary, Jack Armstrong, KHC6900, and Treasurer, Bob Postel, KHC0659.

Officers of the Sedalia Citizens Band Emergency Network are: President, Wright Rank, 17W4264; Vice President, Jim Flemin, KGH3660; Secretary-Treasurer, John Meineman, KGI3919. The club has been very active, recently in civic affairs.

The Ramsey County Five Water CB Radio Club of Saint Paul, Minnesota held their annual election recently with the following to guide the club in 1964. President, Raymond E. Olson, KGE1435; Vice

President, Omer B. Katke, 16Q1350; Treasurer, Janice Leeman, 16Q1840; Secretary, Norma M. Olson, KGE-1435. The club meets every 3rd Friday on Navy Island and monitor channels 9 and 18.

Jacomo CB'ers are forming a Civil Defense Communications Unit for Independence, Mo. They will do this as a project of the Jacomo CB Club. The club monitors channel 11, 24 hours a day.

From Wallace Buffmire, KHD8100, comes the news that they are primarily trailerites, belonging to the Wally Byam Caravan Club and are charter members of their newly organized CB Club. They have traveled many miles in their trailer through Canada, U.S.A. and Mexico—50,000 or more miles—and feel that the CB rig helped them greatly in their travels. Many of the Airstream owners of the caravan are CB operators.

Another fine club paper, The Transmitter, of the Ingham County CB Club, Inc. Just one more to add to the list to exchange with. Write: P.O. Box 15, Mason, Michigan. From Karen Tamlin, KHD6008, Secretary of the Rebel CB Club, comes the news that the club has been in effect since September 1963. Their motto is "to lend a helping hand." Being affiliated with REACT and CD gave them the opportunity to participate with other CD units in offering services. The club boast a membership of about 25 and continues to grow. Meetings are held twice a month, every other Sunday night. They would be interested in hearing from other clubs concerning their projects, club papers, and about the "coffee breaks" held on the West Coast. Write: 601½ E. Street, LaPorte, Indiana.

From Charles Canamar, Jr., acting chairman of the Lake County CB Club comes the news that they are just organizing and will hold their first meeting in a short time. The club is drawing members from East Chicago, Whiting, Hammond, Highland, Munster, Robertdale and Gary, all in Lake County, Indiana.

Recently elected officers of the Montclare CB Radio Club are: President, Fred Ruedy, 18A9417, Vice President, John Wirag, KHA1377, Secretary, Fred Woerner, 18B2685, Treasurer, Jim Batdorf, 18Q1085, (Editor's note: Jim is a baker and sees that each meeting is supplied with delicious pastries. Chuck Baer, knows!!!!) June 6th the club will hold their annual spring dance at Weber Hall, 2924 N. Southport, Oakdale, Chicago. As each member renews his annual membership he receives an engraved call pin with the club name, the members name and call, as well as indication of having been a member a year or longer.

The Q-5 Radio Club was formed in the fall of 1963 to promote better understanding of the Citizens Band. The club meets the second Tuesday of every month at the Buckeye Lanes in North Olmstead at seven p.m. They welcome all visitors and out of town CB'ers. President, Sig Hufenback, KHJ3300; Vice President Les Bubel, KHJ1279; Secretary, Rick Hilberg, KHJ2097; Treasurer, Bub Barnes, KHH4340. The club publishes their own journal, the Q-5 News, once a month. The paper has already become one of the best in the area and can be had for free at many CB and electronics stores in the Cleveland area. Jon Batley, KHI1466 is editor and spends most of his time hunting for people to write articles. The club also has various committees set up for entertainment and public services. The club uses channel 14 for its emergency work. News of the group comes from Rick Hilberg, KHJ2097.

The Cee Bee Social Club of the greater Alexandria, Elwood area recently held a euchre card party for its members and friends at the home of vice president, Fred Mitchell, KHA2876. Approx. 40 people were present.

Recently formed is the Wabash Co. CB Club. The club presently has a active membership of 35 and is headed by President, Elmer Rice, KHD4740; Vice President, Gerald Benson, KHB0945; Secretary-Treasurer, Betty Benson, KHB0945, unit. 3. Club meetings are held the 3rd Tuesday of each month at the Conservation Bldg., in Richvalley, Ind. Time 7:30 p.m. The club monitors channel 9. This is a conscientious little club who has lots of high ideals and plenty of drive. Might be worth watching closely and see how they fare for 1964.

Continued on page 76



WASHINGTON OUTLOOK

This month there was a petition presented to the FCC which, if passed, would eliminate the present TV channel 2 as a broadcast channel and give it to the CB and Ham radio services. Presented by Ham licensee Burton H. Syverson of Aurora, Ill., cited the fact that although CB'ers and Hams were operating their equipment properly, good TV reception on channel 2 is difficult because of the harmonic relationship to CB and Ham frequencies and the fact that viewers are reluctant to install high pass TV filters on their receivers. Our opinion is that the Commission will *not* pass this proposal because they feel that the CB service already has sufficient frequencies, and the fact that the multi-million dollar TV broadcasting and manufacturing industry will oppose it strongly, especially CBS, which operates many of its stations on this particular channel.

In a recent report the FCC noted that it had received over 40,000 interference complaints during 1963, for which 1,100 major investigations were made. They noted that "self-help committees, while performing valiantly, have not been able to stem the tide . . ." They also noted that more than 350 unlicensed CB stations were discovered in 1963.

If you like to deal in BIG numbers, try these on for size: the FCC received more than 3-million pieces of mail last year and wrote one million six hundred thousand outgoing letters. Further, almost 4-million dollars has been allocated to operate the FCC's Safety and Special Radio Services (CB is a subdivision of this FCC Division), and over a million and a half dollars for monitoring purposes. These amounts are for the fiscal year ending June 30, 1965.

Of passing interest to CB'ers is a new rule which prohibits the use of radio devices (either licensed equipment or Part 15 sets) for "the purpose of overhearing or recording the private conversations of others." In other words, unless you are a law officer operating under lawful authority, it's not legal to eavesdrop or "bug" a room with a radio device.

The following CB'ers were tagged by Uncle Sugar this round:

6W1056, H. I. Donnelly, Charleston, S.C., directed to show cause why his license should not

be revoked for repeated failure to respond to official notices concerning certain alleged violation of the CB rules.

6W2871, Jerry L. Wade, Smyrna, Ga., directed to show cause why his license should not be revoked for repeated failure to respond to official notices concerning certain alleged violations of the CB rules.

7W1465, Leslie L. Myers, Delray Beach, Fla. directed to show cause why his license should not be revoked for repeated failure to respond to official notices concerning certain alleged violations

7W2126, Johnny Rivenbark, Vero Beach, Fla., hearings dismissed on his "show cause" notice.

9W1577, Vernon Flowers, d/b/a Flowers Supply Co., Port Arthur, Tex., directed to show cause why the license for his station should not be revoked for repeated failure to respond to official notices concerning alleged violation of Sect. 95.37(c).

10Q2041, James J. Owens, Amarillo, Tex. hearings terminated on his "show cause" notice

11Q0571, Joseph Lambert, San Fernando, Calif. directed to show cause why his license should not be revoked for repeated failure to respond to official notices concerning alleged violations.

11Q1177, United States Mobile Communications Corp., Los Angeles, Calif., license revoked for repeated violations of Section 308(b) of the Communications Act and Section 1.89 of the rules, effective Feb. 26.

11Q4801, Frank Thompson, Los Angeles, Calif. directed to show cause why his license should not be revoked for repeated failure to respond to official notices concerning alleged violation of the rules.

11W3461, Ross M. Goldsberry, Cosa Mesa Calif., license revoked for repeated failure to respond to official notices concerning operation with excessive frequency deviation in violation of the CB rules.

11W4680, H. W. South, Placentia, Calif., directed to show cause why his license should not be revoked for repeated failure to respond to official notices concerning alleged violation of rule 95.81(a).

13W1203, Richard C. Samuelson, Portland, Oreg., hearing dismissed on his "show cause" notice.

17W4112, Roman Conway, Kansas City, Kans., directed to show cause why his license should not be revoked for repeated failure to respond to official notices concerning alleged violation of rule 95.45.

20Q4153, Michael J. Marshall, Rochester, N. Y., directed to show cause why his license should not be revoked for failure to respond to official notices concerning certain alleged violations of the rules.

KBC1555, Richard P. Greenside, Somerville, Mass., his requested mitigation denied and an order issued for him to forfeit \$100 to the Government for repeated or willful violation of the Communications Act and Commission rules by failing to identify his radio station by proper call letters.

KCC4362, Pauls Home Improvements, Atlantic City, N. J., hearings terminated on their "show cause" notice.

KCF2085, Walter J. King, Glen Burnie, Md., license revoked for repeated failure to respond to official notices concerning alleged violation of the rules.

KCG0418, Shirley F. Brooks, Baltimore, Md., directed her to show cause why her license should not be revoked for repeated violations of Section 308(b) of the Communications Act and Section 1.89 of the rules.

KCI3719, Herbert M. Harris, Grantsboro, N.C., directed to show cause why his license should not be revoked for repeated failure to respond to official notices concerning Section 95.81(g).

KCI6404, James P. Bryant, Lynchburg, Va., hearings terminated on his "show cause" notice.

KDB3441, Junior Lee Bowling, d/b/a Bowling Phillips Service Station, Rome, Ga., directed to show cause why his license should not be revoked for repeated failure to respond to official notices concerning alleged violation of Section 95.81(a).

KDB8001, Earnest C. Fortenberry, Cleveland, Tenn., hearings terminated on his "show cause" notice.

KDI1452, Ronald B. Smith, Miami, Fla., directed to show cause why his license should not be revoked for repeated failure to respond to official notices concerning alleged violation of Sections 95.81(a) and 95.87 of the rules.

KDI1836, Richard L. Prefitt, Pinellas Park, Fla., license revoked for repeated failure to respond to official notices concerning alleged violation of CB rules, effective March 16.

KEH4336, Billy C. Usher, Lubbock, Tex., directed to show cause why his license should not be revoked for repeated failure to respond to official notices concerning certain alleged violations of the CB rules.

KEJ2000, Vegas Garage, Las Vegas, Nev., directed to show cause why their license should not be revoked for repeated failure to respond to official notices concerning certain alleged violations of CB rules.

KEJ3634, Robert M. McKinley, Cosa Mesa, Calif., directed to show cause why his license should not be revoked for repeated failure to respond to official notices concerning certain alleged violations of the CB rules.

KEJ4095, Nick Bruns, Baldwin Park, Calif., directed to show cause why his license should not be revoked for repeated failure to respond to official notices.

KEJ4555, Betty J. Booth, Anaheim, Calif., hearing dismissed on her "show cause" notice.

KFA1316, Roger Phillip Grider, Long Beach, Calif., license revoked for repeated failure to respond to official notices concerning alleged violations of Sections 95.81(a), 95.81(e), and 95.81(f) of the rules, effective March 9.

KFA4590, Vernie Wayne Kinneman, Compton, Calif., directed to show cause why his license should not be revoked for repeated failure to respond to official notices concerning alleged violations of the rules.

KHG8046, Terrell F. Fines, Pontiac, Mich., directed to show cause why his license should not be revoked for repeated failure to respond to official notices concerning alleged violation of Section 95.81(a) of the rules.

KHI5265, Lester R. Brill Jr., d/b/a Brill Electronics Co., Allen Park, Mich., directed to show cause why his license should not be revoked for repeated failure to respond to official notices concerning alleged violations of 19.61(a), non-substantive messages, and 19.61(f), talking more than 5 minutes. Last month the licensee was fined \$100.



KBG4303 RIDES AGAIN

Continued from page 7

articles reproduced in the above manner must appear in their entirety without being edited or changed in any way, plus a copyright credit line must be included with each article.

"A suitable credit line is: 'Reprinted from the (month) issue of S9/the citizens band journal, by permission of the copyright owner, Cowan Publishing Corp., New York, N. Y. 10036.'"

This permission is granted only to those club papers which charge less than \$20 per page for advertising space. Others will have to check with S9 for each reprint permission desired.

BREATHER

Remember the "breathing period" we received when the Federal Judge suspended the FCC's license fees? Well *remember* it is about all you can do right now because, as of mid-March, the fees are back with us again and this time it's probably for keeps. Don't forget, that's \$8 for each CB application, modification or renewal.

"10 CODES"

Alright, we give up! There must be 1001 different versions of the 10 codes floating around—each call area seems to have their own version.

Let's make a deal. A leading CB manufacturer has contacted us and requested that we ask our readers to supply us with as complete a set of 10 codes as is used in each respective area. When all the areas are reported, we will attempt to put together a jigsaw puzzle of all the various codes and come up with one "standard" nationwide version with which we can work, because the present system is sheer insanity.

What say? Care to print or type up a set of the CB 10 codes used in your neck of the band? We sure would appreciate your cooperation in sending it to us at the following address: "10 Code Survey," S9 Magazine, 300 West 43rd Street, New York, N. Y. 10036. We will probably do a story on the the results in a forthcoming issue of S9, and give editorial credit to those S9ers who cooperated in the project (so don't forget to include your names and call signs when reporting).

BIGGEST CB PUBLICATION YET

This month, you may have noticed, we are running an 80 page issue, as promised last month—part of the general expansion plan here at S9 we have been hinting at over the past few months. Next month we'll run another issue the same size, which includes the second part of Jim Kyle's "A to Z of Mobile CB" special mobile report. Again, this issue will sell for the regular 50¢ per copy, if you are *able* to buy the issue at all. Take a look at the reader mail column this month to get a look at the letter from 5W4076, it's typical of what we have been receiving from many parts of the country and Canada. We are doing our best to satisfy the un-ending appetite of newsstand readers but there seems to be no way of solving the situation in time for the May issue. If you subscribe, you've got it made. Newsstand buyers stand a very good chance of being faked out with the May issue.

By the way, these GIANT size issues of S9 are made possible *solely* by the support we receive from readers and advertisers. You already know the bit about how much we need *your* subscription to enable us to bring you more of these issues. I would like to remind you, however, that it is *most important* for you to "push" S9 whenever you contact manufacturers or dealers. Manufacturers are genuinely interested in receiving

"grass roots" reports on what you are reading and put this type of information to use when they decide where to place their ads. Any efforts you make along these lines will bring *you* the benefits of bigger and **BIGGER** monthly issues of S9.

CRAZY MIXED UP NUMBERS

The February, 1964, ACBA editorial (on page 6 of their newsletter) brought up an interesting point which is worthy of thought. Bob Cooper, now the self-appointed leader of the ACBA, was, as you probably recall, the publisher of the now burned-down CB HORIZONS.

Back in January, 1963, when Bob was running CB HORIZONS, he was claiming "more than 78,000 readers" (see page 6, Jan. '63 CBH). Now that CBH has gone to their reward in that big groundplane in the sky, Bob, this past February, seems to be revealing some of the behind-the-scenes "secrets" of CBH. For instance, he now says that they really had a grand total of only about 13,000 readers when they were in business.

Anyway, we took out our trusty Crayola and deduced that the 13,000 which they apparently had was multiplied 6 times to get their pie-in-the-sky 78,000 figure. Here's the bit—this same fellow who is responsible for these figures, now claims that his ACBA club has "more than 10,000 members." Some additional work with the Crayola, using the magic figure of "6," as before, gives us a revised total of less than 1700 ACBA members—roughly the same membership estimate we quoted in S9's pages recently, amidst screams of "*foul, liar, fink, etc.*" from ACBA & Co.

Looks like 6 is ACBA/Cooper's lucky number or somethin'. Wot?

S9

CANADIAN CB call area maps in 2 blinding colors on high quality paper—only 25¢. Get both the Canadian map and the 35¢ 3 color U.S. maps for only 50¢. Order now, supply limited. Order from: Wall Certificate, S9 Magazine, 300 West 43rd St., New York, N. Y. 10036.

FCC WARNING STICKERS for your mobile unit. High quality and long lasting in big 2½ by 4½ size. Silver and black. Now only 35¢ each, 4 for \$1 pp. Logan Radio Communications Supply, 1821 Avenue "K," Lubbock, Texas.

SWAPPERS. ACHTUNG! Assortments of actual cards from most call areas. All either unmarked or signed by the operators. These are all "real cards" and not printers samples. 50 assorted, no duplicates, for \$1.25, postpaid. Limited supply, so hurry. Nussbaum's, 1440 54th Street, Brooklyn, N. Y. 11219.

CHEAP! CHINTZY! RUN OF THE MILL QSL's but what do you want at 1¢ each? Send 10¢ wild samples. Save your money for a Rainy day. Nussbaum, 1440 54th St., Brooklyn, N. Y., 11219.

S9 is the nation's largest circulating CB publication.

LEFTY MCGURCK

Continued from page 15

Lefty looked back at me again. "You know, my brother lives next door, don't you?" I nodded, and Lefty went rambling on telling me the whole story. A bit complicated, and awfully expensive, but legal. Seems that his brother has another low-power 11 meter rig in his home, right next to the telephone on his desk. Lefty sets up his flea-powered rig with the piece of wire and the brother receives and phone-patches his signal into the land lines. Lefty has written letters to lots of low power 11 meter operators all over the place, and arranged for similar setups on the other end. Well, without boring you with all the technical details, it worked something like this. Skeds were arranged at specific times, and Lefty would call the guy on 11 meters. His brother would receive and pump the received signals into the phone lines. At the other end it was retransmitted on 11 meters to the other CB'er. Same thing in reverse. Very legal and neat. Only, Lefty had agreed to foot all phone bills for the project.

Collect butterflies, me? Heck no. I'm going home and work that friendly Venezuelan on Channel 4, but with my walkie talkie!



STOP CITIZENS' BANDITS

Continued from page 24

by an outside force the alarm will sound, so don't make the ring too small around the pendulum or the thing will yell even in a strong wind. An on/off toggle switch, as in ALARM #1, can be hidden away to temporarily kill the circuit when it isn't needed.

The few minutes it takes to install either of these two alarms will be well invested. They could save you several hundred dollars worth of electronic gear.



QUARTET

Continued from page 20

WA4GPJ, of Richmond, Va. Jerry reports that Noll's original circuit was an absolute gem with his 150 watt Ham rig, but he feels that increased sensitivity would give substantially better results when used with low power transmitters, such as CB units. It is Noll's original circuit with the exception that Jerry had added three more IN34A diodes in a full wave bridge rectifying configuration, as shown in Fig. 4.

When the circuit is completed, if the meter pins to the left, reverse the meter leads. See Ed Noll's original article for details of using this device if you require further information.



DO YOU HAVE YOURS?

Price \$1

1964 PART 15 handbook callbook

Editor: Tom Seichel, AS4207/6-13 Production Manager: Ed Ruchbaum, CS4402/6B00
Assistant Editor: Lyle Neve Editorial Consultant: Pete Dittler, 6-17

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They're being gobbled up pretty fast—the 1964 PART 15 HANDBOOK/CALLBOOK, that is. Just in case you have seen a copy yet, it's a listing of more than 6,200 Part 15 "hobby" CB stations (calls, names, addresses, channels), plus features on the *how* and the *why* of Part 15 legal hobby CB'ing, plus all the rules and regulations you will need to know to get yourself established in this fascinating aspect of CB'ing—the only way to legally "rag chew" on 11 meters—or *the other Part 15 bands!* There are some interesting Part 15 rigs shown too, one selling for less than \$70!

Get your copy right now! Immediate delivery! The 1964 PART 15 HANDBOOK/CALLBOOK sells for \$1 postpaid, but if you are a registered Part 15 operator (that is, if you have an S9 Part 15 identifier call sign), the book is only 50¢. Order from:

**Book Division
Cowan Publishing Corp.
300 West 43rd St.
New York, N. Y. 10036**

TAXES AND THE CB'er

Continued from page 16

local income taxes, personal property taxes, real estate taxes, and certain sales taxes."

As a rule of thumb, the Treasury figures that one third of your income was spent on items where sales tax applied—if your city or state levies a sales tax. If you actually shelled out more than this amount of sales tax, keep the receipts to prove it. Gasoline taxes are deductible in *most* states, but not all.

Q. Last year I donated a CB set to a church for a bazaar. May I deduct this?

A. Contributions can consist of THINGS as well as money. Put a fair valuation on what you donated and the Treasury will allow it as a legitimate item of contributions expense.



ANTENNAS

Continued from page 38

WHIP-TOP BOX

Ask anyone who's mounted a whip squat at the center of his car roof. If he's like most, he'll swear that range is phenomenal. Joining the ranks of the whip-top box boys is easy if you're willing to make a hole in the middle of the car roof. But drilling the hole is another story. You've got to be careful while drilling or the bit will poke through the metal roof, the mouse-fuzz headliner and maybe take the domelight with it. Two simple techniques head off the problem.



Since the roof is often slightly curved, the drill tries to slip to one side. Prevent this by using a center punch or sharp nail to first hammer a dimple in the metal. And while drilling, don't bear down. With a sharp bit, the drill practically works through the thin sheet metal under its own weight.

Once the pilot hole is cut, what about enlarging it cleanly? Easily the best method is with a socket punch—the kind used to cut a neat hole in radio chassis to receive a tube socket. (See photo.) In one installation we did recently, the punch for a 9-pin miniature tube socket worked perfectly for the base mounting of the antenna. In another job, an octal punch (for an 8-pin tube) neatly cut the hole for a full-length whip positioned atop a rear fender.

Many CBers, considering re-sale value, hesitate to punch holes in the roof of a late-model buggy. We checked with the local auto-body shop, discovering that the repair would run less than \$5. The do-it-yourselfer can also do the job with one of the new fiber-glass repair kits and a spray-can of matching paint (called "Dupli-Color").

(Better yet, sell the car to another CB'er.)

SWR TUNING TIP

Now that several of today's mobile whips are provided with some means of tuning, the SWR meter takes on new importance. The instrument indicates, by lowest SWR, the exact setting of antenna length. The adjustment is usually trial-and-error, but can be speeded up by using your hand as a temporary tuning capacitor. Set up the SWR meter in normal fashion. With the meter indicating "reflected" power, bring your hand toward the upper end of the wind. If the meter reading *drops*, it's an indication that the whip is too short. Increase antenna length by a fraction of an inch at a time to find the lowest SWR.

If swinging the hand close to the whip causes an *increase* in reflected power on the meter, the antenna must be *shoretnded* in a series of small steps.



CB CHIT CHAT

Continued from page 71

1964 officers of the Raisin Valley CB Club are: President Bob Williamson, 19Q 086; Vice President, Dean Downing, 19Q3538; Secretary, Harold Robison, KHG6575; Treasurer, Louis Loesch, 19Q6066.

The Bartholomew CB Radio Club, Inc. meets at the "Bob-O-Link Restaurant," every second Wednesday night of the month. Time: 7:30 p.m. The club monitors channel 11, 24 hours a day, for emergency or to help in any way possible. President, Noble Landreth, vice president, Bill Fetter, Sr.; Secretary-Treasurer, Juanita Forrest. The club has a membership of 115. Wow. . . .

WESTERN

1964 Club officer of the Southern California Citizens Band Association are: President, Bill McCarver, KEJ3938; Vice President, Art Dreher, 11W9614, Secretary, Kay Harris, KEJ2870; Treasurer, Cappy Caporaletti, KFA0484 and Corresponding Secretary, Minnie McCarver, KEJ3938.

President of the Citizens Assistance Relay League, Long Beach, California is Gene Petersen. Let's hear more from the group Gene.

Richard L. Oldham informs us of the Faith City Five Waters CB Club from Wichita Falls, Texas. The club boast a membership of over 100 and still growing.

The Emergency Communications Club of Texarkana, Texas, monitors channel, 11. The club has a membership of 47 and the unit has helped in one drowning, fifty or more grass fires, and saved more than a dozen barns, plus livestock and farm equipment. News of the club has been pouring in from Radio Red, F.S.M. Bailey, KEH1065. Thanks Red.

Recently organized is the Cheyenne CB Club which meets the second and fourth Tuesday of the Month at the Carson Machine and Supply Company. President, Leon Neil, Vice President, Roger Smith; Treasurer-Secretary, Larry Mix.



CB SHOP

Rates for CB SHOP are 10¢ per word for advertising which, in our opinion, is obviously of a non-commercial nature. A charge of 25¢ per word is made to all commercial advertisers or business organizations. A 5% discount is in effect for an advance insertion order for six consecutive months.

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.

Closing date is the 15th of the 2nd month preceding date of publication.

We reserve the right to reject advertising which we feel is not suitable.

Because the advertisers and equipment contained in the CB SHOP have not been investigated, the publishers of S9 cannot vouch for the merchandise or services listed therein.

QSL CARDS, EYEBALL CARDS. The largest designs, colors, cardstock. Samples—10¢. APRIL SIGN, 56290 Van Dyke, Washington, Mich.

CB QSL CARDS—100 two-color \$3.00 postpaid, samples—10¢. Rusprint, Box 7575, Kansas City, Missouri 64116.

QSL's CB, WPE SAMPLES 10¢. NICHOLAS & SON PRINTERY, P.O. BOX 11184, PHOENIX, ARIZONA 85017.

QSL's—FLUORESCENT COLORS \$19.50 per thousand; Glossy (Kromkote) \$12.75. Smaller quantities slightly higher. 5¢ stamp for samples. TAYLOR PRESS, Box 3336, Daytona Beach, Florida 32018

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S9 has every top CB author in the field!

(Advertisement)

CB IN ACTION

By Len Haas,
Sales Manager,
Pearce-Simpson, KBG7527



INTERNATIONAL SPEED WEEK

CB in sports cars—that's a mixture that was recently dished up in Nassau during the annual "Bahamas Speed Week." This exciting event was held at the famous Oaks Course and featured 170 cars from around the world competing in all classes. Twenty-five thousand car racing enthusiasts cheered as A. J. Foyt, last year's Indianapolis winner, took first place honors for the United States in a \$73,000 "Lola" Chevrolet—averaging better than 98 mph in the laps and better than 100 mph in the straightaway. Yours truly was monitoring the bitterly contested event at the control center. Here is where CB really showed its stuff! Pearce-Simpson was given the honor to act as official communications system by the Bahamas Automobile Club. Race control was set up at ten mobile stations nearby the treacherous curves along the four and one-half mile course. Chairman Red Chrise's pace car, the control center and three strategically located ambulances were also Pearce-Simpson Companion CB-equipped. The mobile units were in constant contact with the control center throughout the race. The race went off beautifully and the flag marshals commented that the vital communications system relayed the emergency information quickly and efficiently. Another demonstration of CB in Action!

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Write us about *your* CB in Action experience. Tell us how you used CB to aid your community or to help in an emergency. If we use your story in our column or in our advertising, you will receive a brand new Companion II! Next award will be made in May. Write to: Len Haas, Sales Manager, Pearce-Simpson, Inc., 2295 N.W. 14th Street, Miami, Florida 33125.

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LOG BOOK for CB'ers. S9 call map printed on inside cover in red and black. Plastic ring binder opens flat with 1200 lines 17 inches long for each call. \$1.00 postpaid. CAROLINA CAMERA PUBLISHERS, Post Office Box 1728-S, Wilmington, N. C. 28402.

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