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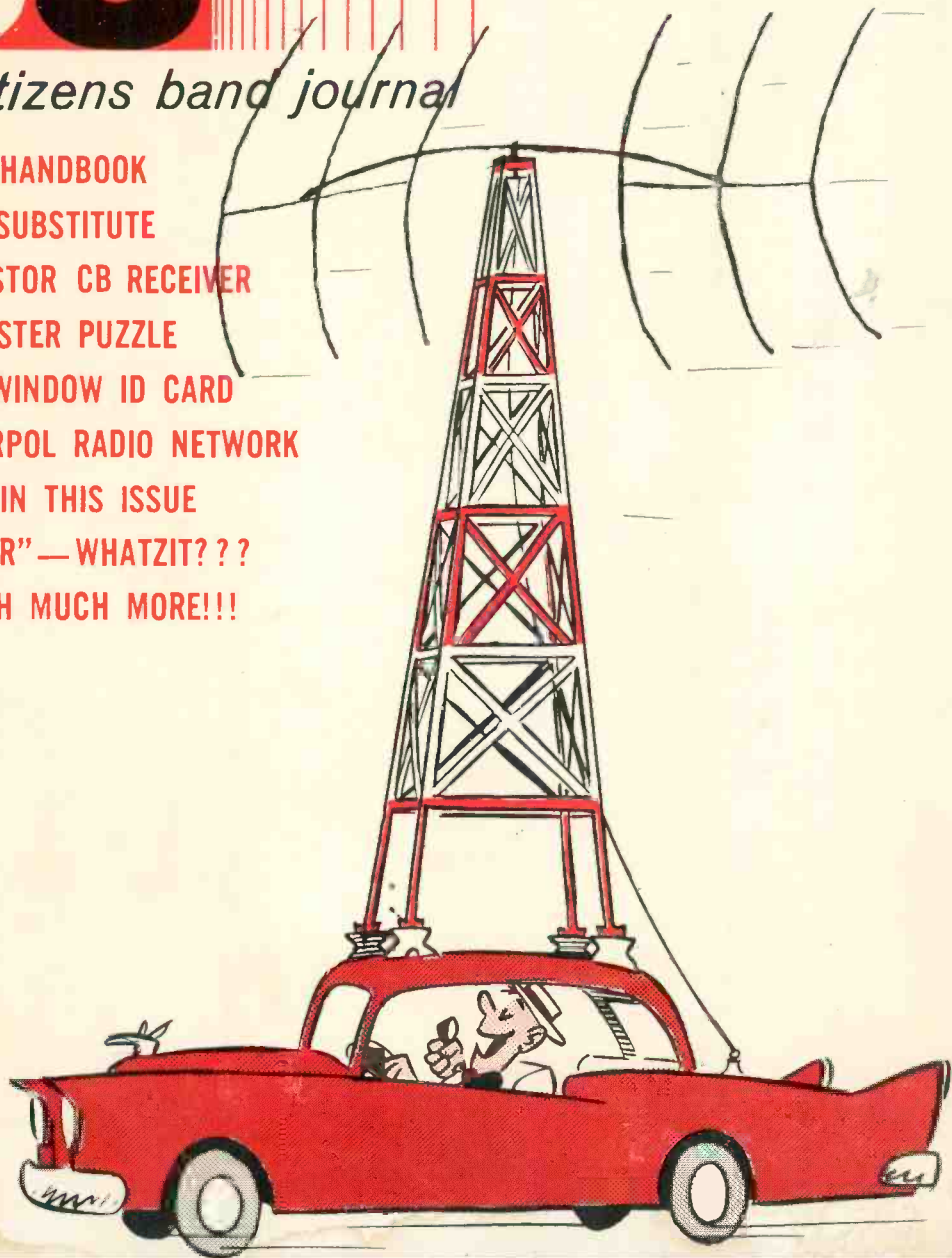
SEPTEMBER 1966

75¢

S9
ICD

the citizens band journal

- CB CLUB HANDBOOK**
- BATTERY SUBSTITUTE**
- 1 TRANSISTOR CB RECEIVER**
- BRAIN BUSTER PUZZLE**
- NEW CB WINDOW ID CARD**
- THE INTERPOL RADIO NETWORK**
- 13 GIFTS IN THIS ISSUE**
- THE "DDRR" — WHATZIT???**
- AND MUCH MUCH MORE!!!**



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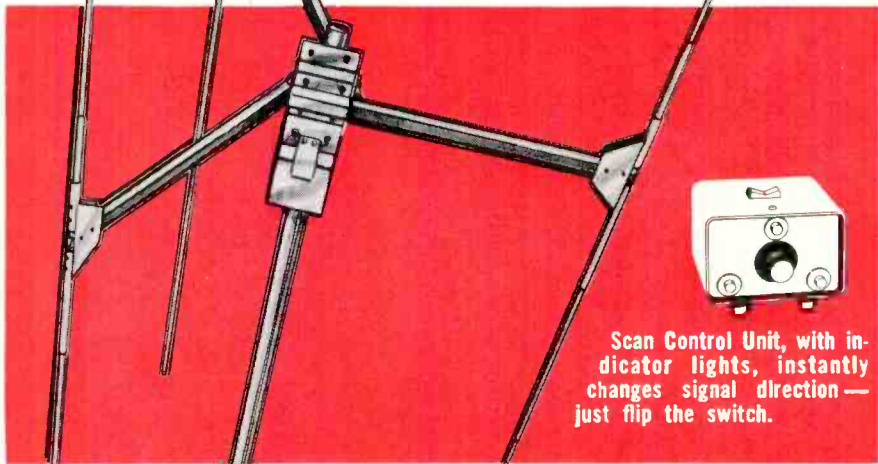
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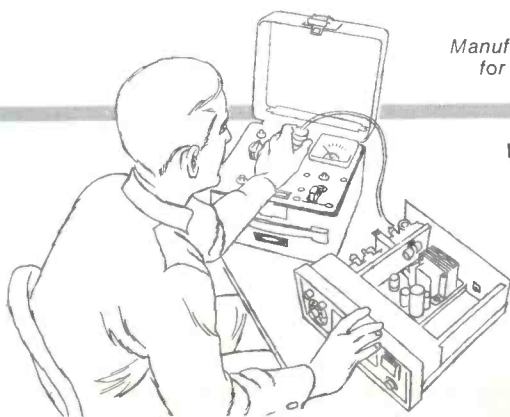
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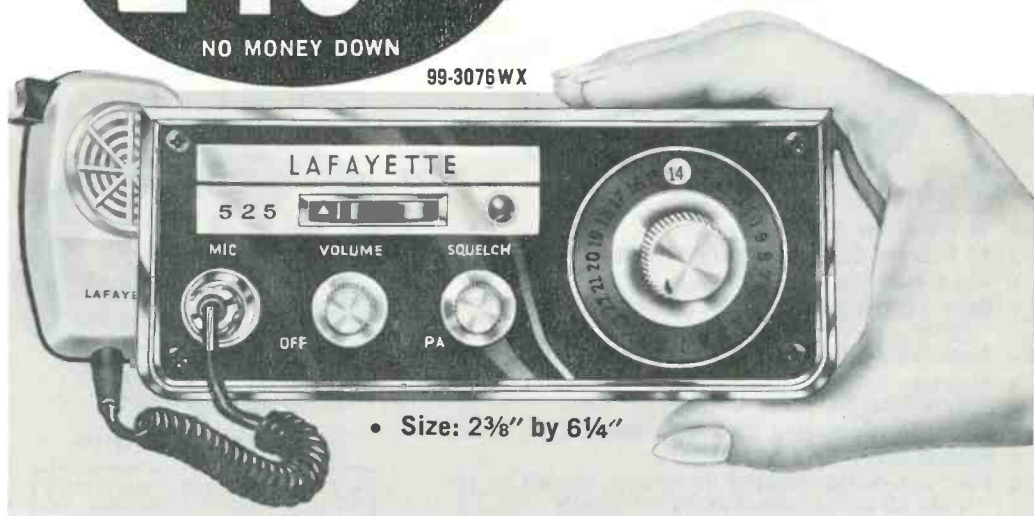
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READER MAIL

ACBA STATUS

Dear Tom,

You recently ran a letter asking about the current status of the "American Citizens Band Association," better known as the "ACBA," immortalized, condemned, exposed, and whatever in a number of S9 editorials.

Over 2 years ago I became one of the charter members of the ACBA. After joining I raised some questions about it and stated that I was doubtful as to whether or not this group would ever really get off the ground and be of any use at all. As you can see from their reaction (July, 1964, S9, "Reader Mail" column), they didn't dig my questions. The president of the ACBA, Ralph Johnson, took me to task and said that he was very surprised over my actions.

I must, however, give Ralph some credit because I do believe that he was always sincere in his efforts to have the ACBA turn out to be worthwhile, but the club was apparently ill starred right from the day they "fired" their self-appointed "founder" for certain financial maneuverings. The hard time the club gave Ernie Walker didn't do them much good either.

But where is ACBA today? Just as you had said many months ago, it is dead. Dead as a mackerel in the moonlight, and just as smelly—if it could have ever been considered to have been alive at all. All of us who gave our \$3.00 per year are left with our fingers in our respective ears—the club didn't even bother to send me a renewal this past May after getting my dues for 2 years! When I joined I was promised a monthly journal, I eventually received a little newsletter every 2 months, usually dated several months old. I think the last one I saw was during the summer of 1965.

Last winter I spoke to Ralph Johnson and he said that they just couldn't keep going, and that the club was trying to raise several hundred dollars to send out a notice about this. That's the last I ever heard from the ACBA or anyone connected with it. According to the ACBA's released membership figures they had 13,000 members in 1964, and 10,000 members in 1965. That means that they took in almost \$70,000 if they weren't lying in their membership figures. What happened to all of this money? Aren't the members even going to get some kind of accounting?

It really makes you wonder, even today in our time, how people are always quick to spend a few dollars when they are given a string of promises—even though you and S9 had said right along that we were throwing our money down the drain. The dollars added up to a great big ZERO, a sham, and a black eye for CB radio. The ACBA never did a single thing for CB radio or for CB'ers, except take our money. Who will do something about this and investigate the expenditure of \$70,000 gypped from CB'ers?

Roger Alan Mott, KHC2661
ACBA Member #945
Madison, Wis.

As you correctly noted, Roger, S9 had always tried (vainly) to caution CB'ers about this particular "national CB club." You and many other readers would probably not believe some of the things which we knew about ACBA but could not print. Nevertheless we attempted with all of our might to restrain CB'ers from sending their money into this cruel hoax, and our reward for this was in the form of things such as a series of vicious unsigned letters directed at us from one of the ACBA's "officers" in the southwest. It can now be told that the ACBA was in its early formative stage just as I was leaving the editorship of CB Horizons Magazine. The "club" was an out-and-out gyp right from the very start, with the main object in mind to promise miracles to unsuspecting CB'ers while giving them little or nothing. The end result being the creation of plush jobs with a rosy expense account for the few select insiders who would be in charge. I was offered one of these jobs and turned it down. This precipitated a series of strange events which eventually wound up with the "insiders" realizing that the whole project would never be able to run with me hanging around the offices knowing the truth. Result? I was

suddenly axed from the staff because I wouldn't play ball. The folks at Cowan Publishing, realizing that the ACBA was the death knell for CB Horizons and all those associated with it, then decided to commence publication of S9 Magazine. That was in 1962. As the ACBA began to emerge in the pages of the post-Kneitel CB Horizons, we at S9 were quick to point out that it should be avoided at all costs. We were then jumped upon by Horizons and a number of S9 readers for trying to start a feud with CB Horizons, and for making up lies in an effort to "knock" the competition.

Even though we realized that the ACBA would not (and could not) stand for very long in the bright light of truth, we had still hoped to stop at least some of our readers from making fools of themselves by supporting this club; a club which sent FCC officials into either rage or convulsive fits of laughter at the mere mention of its name. By the time the ACBA's new (and no doubt well intentioned) regime took over, the club was already on its death bed.

Anyway, save that ACBA membership card. In 1986 when the trivia fad starts again, it may be worth \$3.00, just like the 10¢ Batman books of 1946 are worth \$3.00 (or more) today.

KILL-A-HERTZ

Tom,

A short time ago they said that Columbus didn't discover America, then they said that Betsy Ross didn't make the flag. Now a cycle isn't a cycle, it's a Hertz. I'm happy to see that S9 is not switching over to this new word as the average CB'er is not a technician and is familiar with cycles, cps, kc/s, mc/s, etc. Can you imagine the confusion if S9 tried to tell CB'ers about a new 27 mHz antenna. I'd be a candidate for the psychiatrist if I had to go over every item in my shop (including test gear) to change it over to the new Hertz system.

John G. Niederhauser, KKB0273
Eagle Radio Shop
Waterford, Conn.

S9:

Regarding the honoring of Hank Hertz by naming "cycles" after him, we hear that the speed of 60 miles per hour has now been rated as an "Oldfield," in honor of Barney Oldfield, first man to achieve this speed in an automobile. Is this the new trend? If so, I should like to go on record as being the first human to do my senior year in high school 4 times. Henceforth, any 8 semester school period should be named a "Wellster." Then you could say things like: "That school hard? Nah, I did it in .75 Wellster" or "I've been going to Harvard for a Wellster and a half, if you count graduate school."

Irwin Wellster
Cleveland, Ohio

As a matter of fact, we note that the FCC still uses the old "kc/s" form on all of their official public notices. The International Telecommunications Union in Geneva, the organization run by the U.N. to coordinate all radio activities of the world, still uses kc/s and mc/s on all English language releases; the Hertz nonsense seems to be reserved for foreign language publications they issue. While we are on the subject, I get turned down for a salary raise at least 4 times a year, I think that this must be some kind of record, seeing as how I've done this regularly for 4 years I've been here. Why not make a 3 month salary period without a raise a "Kneitel." You could say that you haven't had a raise in 1 and a quarter Kneitels, and are looking for work where they give a big bonus in the final Kneitel of the year.

CANADIAN CAPERS

Dear Tom,

I'm writing to you in regards to the letter published in your June issue (and subsequent mention in the July issue) about the possibilities of Canadian CB'ers being allowed to use their CB rigs while visiting the States. The Calgary General Radio Club has started a petition to get the necessary permission for this and we eagerly seek the cooperation and support of all CB'ers throughout the United States (and, of course,

continued on page 85



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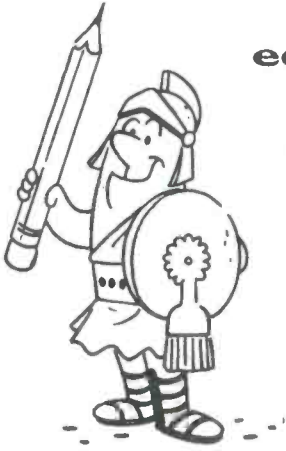


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editorial

KBG4303 rides again!

by TOM KNEITEL
EDITOR, S9

FCC

The people at the FCC tell us that they are very pleased with the good response to their new plan which enables CB'ers to notify the Commission of address changes via the informal post-card or letter method. Under the previous rules, when you moved you had to re-file for a new CB license, pay \$8, and also lose your existing callsign.

The FCC asked us to emphasize the fact that when you notify them of your new address, you should *not* expect to receive any reply or acknowledgment from their office, they simply aren't able to devote the manpower to doing this. They ask that you keep a carbon copy of your notification, or at least make a note of the date upon which it was sent, so that you can have a record of the notice should a question on it arise at a later date.

One point on the new notification process seems to be causing some confusion, according to both the FCC and our own reader mail. CB'ers aren't sure how they stand if they have moved from one "call area" to another. For instance, if you have a KKD license from New York and have moved to California, where a different prefix is assigned, would you still be able to notify the Commission by the informal method and retain the "old" callsign? The answer is "yes," as your CB callsign is issued to you as a "mobile" station and, as such, is of equal validity anywhere in the United States.

Some operators sent the FCC their CB licenses to be "corrected" and returned, adding the comment that they hoped the FCC would not hold their licenses too long because they were staying off the air until it was returned. Neither of these things is necessary. **DO NOT SEND YOUR LICENSE TO THE FCC**, and you do NOT have to stay off the air because of the fact that you have notified them of a change of address.

If you have changed your address since your present CB license was issued, you are asked to cooperate in helping the FCC keep track of you — it's part of your responsibility and obligation as a licensee. We have the FCC form reproduced again in S9 this month, you can either cut it out of the magazine, or copy it. Remember, it makes no difference how long ago your move took place — even if it was 4 years ago.

TWO BETTER THAN ONE?

For a few months now we've been getting mail from readers asking about the fact that Demco Electronics has two mailing addresses, one in Bristol, Indiana, and the other in the southwest. A little checking and we learned that the Demco Electronics we all know and love is *only* in Bristol, Indiana.

As for the other "Demco," we couldn't find out very much about them except for the fact that somebody there is apparently aware of the fact that it never hurts to have a "good name" when doing business. His ads haven't been run in S9.

THE OILY BIRD CATCHES THE CB'ERS

From a number of trips we've taken hither and yon, we've noticed that a great many service stations are CB equipped—probably for communicating with their own tow trucks and other service vehicles.

What a great thing for mobile CB'ers if these service stations could (or would) monitor Channel 9 when their vehicles are not out on the road. This way, a CB'er on the go would easily be able to summon aid or request road directions when out of range of REACT or other emergency CB monitor stations.

But let's go one step further on this. There are many large oil companies operating chains

continued on page 85

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CB CLUB HANDBOOK

PART II

by BOB BROWN, KBG8417

Part I appeared in the January issue.

By far the most "fun" thing in CB is belonging to an exciting, top-notch radio club where you can get to know people you have heard on the air, make new friends, and be part of something important. If you are looking for a satisfying pastime, forget operating. It can get pretty dull trying to contact your Unit 2 through static and heterodynes just to have someone to talk with.

Clubs are by far the most popular item on the CB marketplace. You see them everywhere: the newspaper tells about a jamboree last weekend, S9's column runs an item on a group in your area, there's a poster on the electronics store at the corner about a local meeting, even manufacturers make large promotional mailings to reach the "vast club buyers." (Clubs get discounts on all kinds of things.)

Unfortunately, however, CB clubs are also the biggest spectator sport in the field. A few have become the laughing stock of the electronics world. Most aspire to greatness, but wind up serving boredom on silver platter—month after month.

THE IN CROWD

Like the song says, every died-in-the-wool CB'er wants to feel that he's "in the crowd." Yet for every livewire "in" club, there are hundreds of so-sos. A club *image* is a very easy thing to obtain. Unfortunately, it is just as easy to obtain a bad one as a good one.

Believe it or not, running a CB club successfully is a lot closer to managing a store than it is to running a college fraternity. Rather than it is to running a college fraternity. Re self, establishing a club is a big gamble. Instead of investing dollars and cents, you are taking out a loan of time and effort—asking others to do the same—and shooting for the stars. You and your officers are taking many long hours away from your family in the hopes of creating something truly worthwhile. You will feel mighty disappointed if it flops.

Unlike the fraternity, a really thriving CB club is not a branch of another entity. You are not affiliated with a profit-making organization, nor are you being financially subsidized to carry you over the rough spots. There's no disgrace in not being a member, and no ritualistic initiation ceremony awaiting newcomers. And most important, there's nothing *secret* about the club.

So what is an "in" club? In short, a CB club that is *exciting* to be a part of.

What does it take to create a winner? Plenty of hard work. Anyone can dream of commanding the best CB club around. But few ever make it. The material that follows is a

free-flow outpouring of club ideas and operations that have proved successful for many organizations throughout the U.S.

Public Enemy #1 for CB clubs is Apathy. Utilizing some of the thoughts below can insure that he never gets a seat at your meetings.

BEFORE YOU READ ANY FURTHER

The hardest lesson club officers have to learn is not to attempt to "educate" the membership. Some tech sessions are okay, but it's imperative that the club "swing" with its members—not attempt to make the members "swing" to the tune the officers set. The most successful TV networks pride themselves in "giving the public what it wants." The same goes for widely-read national magazines that make it their policy to offer something of interest for everyone. Needless to say, a radio club must do the same if it is to survive.

Any club, CB or not, must schedule plans and projects pointed at holding the interest of its members. Meetings *must* be made interesting, keeping less interesting aspects at a minimum, speakers or subject matter at a maximum. Otherwise members will get tired of attending dull meetings, and will let their dues lag and finally drop out altogether. Working toward important club objectives with progress reported at meetings and some variety introduced in the club fare will hold interest high.

WHAT HAPPENED TO ONE CB CLUB

For a short time several years ago I attended a radio club that started its meetings at 8:00 P.M. (it said in its by-laws), but which usually got underway at 8:25 P.M. when the "clique" straggled in. Some members were there at 7:00 P.M., and generally sat around in a bull session.

Actually, to start with they had a good lineup of officers, an ideal meeting place, and a date that conflicted with nothing. But somehow the meetings just didn't make it.

The CB club roster showed 45 members, but most of the time fewer than 10 attended the meetings. When asked why they didn't show up, it was generally, "You guys don't do anything but sit around and talk."

The natural reply, I recall, was, "What would you like to do at the meetings?"

The delinquent member would begin, "Well, I . . ." Which ended the topic of conversation right then and there. They always squawked, but never turned a hand to help.

The club attempted to have a door prize at each meeting through donations from the membership, but it wound up that certain non-contributors were trying their damndest to win while other members quietly did all the donating.

They instituted a radio theory course, so



Public service is where CB clubs can come to the forefront. Photo shows part of the more than 13,000 persons who received antitetanus and diphtheria shots after Hurricane Betsy's flood water receded.

that members could learn more about electronics. Maybe some could wind up servicing equipment; others could become hams. But this petered out due to lack of interest. Every other month they attempted to hold a technical session, with a top-notch speaker addressing the group. But some big mouths overruled this as "uninteresting" and "too often."

Then they decided to tackle the soreheads by inviting *them* to give a talk before the club. This, too, fizzled because no one wanted to get up in front of the crowd and get the ball rolling.

Club dues were paid with the same spirit. Most paid in full, but there were a substantial number who just couldn't be bothered. According to the constitution, these delinquents could have been voted out of the club, but in the few months while I was there no one enforced this policy.

The meetings were called to order, with some old business occasionally discussed, possibly an item or two of new business, a motion made for adjournment and that was that.

Generally speaking, the majority of members were doing just that—generally speaking. Half a dozen fellows taking in one corner of the room who couldn't be bothered with good manners, to say nothing of who had the floor. Afterward a couple of members would tinker with the club-owned CB station for a while and go home.

The solution? I moved out of state shortly after, but to the best of my knowledge this pitiful situation remains the same. The club is eight years old, and will probably survive to be a hundred. Some of the original members attended while I was there. But the organization had deteriorated to a point where *gathering* was the only polite word for the monthly meeting. I did hear talk from some members who wanted to form a new club, thereby weeding out the deadwood, but I don't know if this ever came to pass.

The material that follows is published in the hopes that this never happens to you.

REFRESHMENTS

Who ever heard of a club without refreshments? Hundreds exist across the country solely on hot air and cigar smoke. Refreshments at each meeting always increase attendance. Responsibility can rotate: small clubs can work up a refreshments calendar, with one

member donating refreshments for one meeting, the next in line thirty days later.

The best system, however, is to take refreshment money out of dues and have a volunteer Refreshments Chairman serve up the goodies. This way no one's pocketbook is strained at a bad time. (A percolator should be club property item #1.)

Many clubs prefer to adjourn to a nearby diner for coffee and donuts. This offsets the financial burden but shifts the friendly coffee hour away from the club. If at all possible, try to have refreshments at the meeting. Your membership roster will climb accordingly.

AUCTIONS

Since time eternal, man has been in constant search of a bargain. Frequent raffles—or auctions—are sure-fire attendance builders. Member-owned CB equipment, as well as hi-fi gear, shortwave receivers, coax, antennas, etc., should be gathered beforehand. For an auction to really be successful, everyone should bring *some* dust collector.

Separate the "junk" from the more desirable merchandise and suggest that people with odd items and small pieces put a price tag on them and place them on a table off to one side.

The better stuff should be auctioned off after much ado with 10 to 20% of the sale price going into the club treasury.

Note of caution: Insist that auctioneer be informed in advance if there is to be a minimum price on equipment. Otherwise there will be hard feelings.

The auction should be a truly big event. Ample publicity should be afforded before the meeting and telephone calls made to insure a big collection of sale items and attendance. Nothing is more disappointing than to have 50 people show up to bid on 9 pieces of gear. (If it does occur, you can count on not having another for quite some time.)

A NOTE ON CLUB SPOILERS

Club officers should not permit individuals to spoil the club for the majority. This means being firm and often to the letter of the law as spelled out in the club constitution. *If leniency prevails, chaos will result.*

Never to be permitted: gambling, drinking, and personal arguments. All three can take place at someone's home if they so desire, but never under the auspices of the club.

Personal arguments always lead to fights and loss of friendship between the participants. When opinions differ sharply, the presiding officer should simply stop the discussion.

WHAT COMES FIRST

Start the meetings promptly at the scheduled time. Nothing influences attendance more than proper handling of the meeting. Omission or brevity snappy business session impresses everyone that the club has done something. Once business has been concluded, get on with the feature of the evening.

SPEAKERS AND HOW TO GET THEM

Talks by outsiders—DX visitors, public offi-

cials, power company engineers, business men, radio executives, broadcast personnel, and others prominent in their field—should be held frequently, with the club inviting them to speak at a specific date.

Of particular interest are FCC field engineers and power company troubleshooters. Also retired FCC personnel often like to speak before CB clubs in their neighborhoods.

Chances are that every member knows someone who could deliver a dandy talk at a future meeting. Have him invite the gentleman to speak, backing him up, if necessary, with another call from the club Activities Manager.

If all else fails, the club can present an award to a prominent leader in the field. This is good PR for the group, offers sure-fire incentive for the person in mind to show up, and will guarantee a healthy attendance for the presentation.

Another good bet is to poll the membership to find out what new transceiver is particularly interesting at the moment, and invite the manufacturer to send a representative to give a talk and demonstration. Often companies have departments set up just to attend club meetings and jamborees. Several clubs have invited these people back time and time again. And many of these same companies will donate equipment for big events and/or will make units available to CB clubs at wholesale cost.

Under no circumstances offer to pay for a speaker. Any speaker. And only when the treasury permits offer to pay traveling expenses. Save this money for refreshments and club expenses.

DO-IT-YOURSELF SPEAKERS

By no means, however, confine the "feature" after the meeting exclusively to outside speakers! Talks by club members are musts. Special CB subjects with which a member is very familiar makes good topics for the program. For example, if one member has had serious TVI problems, yet managed to solve them without hard feelings—ask him if he'd speak before the group. Maybe one of your members has an unusually large number of mobile units; this would certainly be interesting from an operational standpoint. Another idea: Get the most well-versed member on FCC rules and regulations to lead a discussion on the subject. This could be followed by a question-and-answer session.

This is not as hard to do as you might think. Once two members have lead the "feature" segment, the rest will follow suit. Of course not everyone will want to speak, and many don't have as interesting stories to tell as others. Diplomacy on the part of the Activities Manager, mixed with a bit of politics, can make these sessions really come off.

More ideas for talks: homebrew antennas, unusual station setups, mobile stations that are unique, radio theory.

The Best Paper: is an idea that many clubs use to spur talks from within their membership. Essentially, it works like this: During a given year, each member is requested to give a talk before the club on any subject he feels



At meetings "Quiz Time" can take on the form of written questionnaires designed to test members knowledge of FCC rules and regs. Cash prizes or donated accessory equipment can be awarded the highest scorer.

will be interesting to the rest. Each is dubbed a "spoken paper" and judged by an impartial panel during delivery. At the end of the year an award and cash prize is presented to the individual who presented the most interesting "paper."

IT'S QUIZ TIME

No club who hasn't had a quiz time can truly be considered an effective organization. Why? Because surprisingly enough, these quizzes can be loads of fun since everyone participates. Try promoting them the same way you do big-name speakers, and you'll be amazed at the turn-out.

But we're getting ahead of ourselves. The best way to conduct a quiz is to have a presiding officer raise a question to the membership. (Ex: "Under what conditions does the FCC permit phone-patching?") When a satisfactory answer has been found another question is proposed, this time by a member. (Once started, both questions and answers should come from the membership.)

To arouse interest, a timely subject can be the "Topic of the Evening." This could include: the desirability of frequency synthesizing equipment, Project H.E.L.P., FCC rules and regulations, etc. Magazines contain a vast amount of material that can make for excellent discussions.

If a question is proposed that no one can answer satisfactorily, have the club secretary write a letter to an "expert" source, so that the answer can be presented at the next meeting. This gives everyone a feeling that the session has accomplished something, and adds to the over-all value of the quiz sessions.

MOVIES AND HOW TO GET THEM

Movies always add to interest at club meetings, even if they are shorties. Local power or telephone companies quite frequently have them available and will display or loan film free. Generally it is best to confine these films to radio or emergency topics, but for a small charge entertainment-type movies can be rented if desired.

Public safety organizations are excellent

sources for films, as are local and educational TV stations. If they don't have films at the moment, at least they will be able to tell you who to contact. Good ham radio movies can often be obtained from the American Radio Relay League, 225 Main St., Newington, Conn. Local police officials can often steer you to good sources for free films. Some of the larger CB manufacturers can loan slides of interesting CB applications. And don't forget to keep in touch with your local high school administration! They're showing educational movies every week and can be a deciding factor for getting good pictures in a hurry.

CONTEST, VISITS, ETC.

Contests are good stimulants, if not conducted too often. These can be on knowledge of rules and regulations, types of equipment, active CB'ers(!), jumbled radio words, and even checker games. Prizes are advisable, although winners should be eliminated from future competition for a given period of time to give everyone a chance.

Station visiting after the meeting may be in order providing it does not break up too late. A couple of stations can be included in the program every week. This gives members a chance to compare notes, offer suggestions on system hookup, and have a good time. And it goes a long way towards keeping CB'ers interested in coming to meetings. If a particular member has been backsliding, an announcement with his permission that his station is open to visitors will bring him back to the meetings.

Social events are important. Adjournment to a popular restaurant, or some member's shack for supper, singing, dancing, etc.—and don't forget Christmas and/or New Year's parties—are always appropo. Cut meeting short for these.

After business sessions, each member may tell of any special news he has heard about citizens band radio, both local and national. This could include new stations heard, QSL cards received, new monitoring stations for road aid—even rumors! The secretary can take notes on this part of the program and forward them to S9's John Krejc.

It's natural that CB'ers want to "chew the fat," and time should be allotted for this after adjournment. But keep personal conversations out of the main meetings!

A CLUB NEWSPAPER?

Communications between members is a necessary item, not to be ignored at any price. Small clubs can send out reminder postcards, listing date and time of the next meeting, along with the event of the evening. It costs little, and the rewards are lasting.

Hundreds of CB clubs publish their own club bulletin, newsletter, paper or what-have-you. Essentially, it achieves the main purpose of keeping members abreast of future meeting plans, but opens a wide field for local CB news and other pertinent information.

Many have a recipe page for the XYL's, a Junior Op column for the youngsters, and

articles by members on technical subjects and personal glimpses. Some carry a regular newspaper format, with humorous headlines such as "K8G8417 LOSES LICENSE," only to find out that his fishing license was revoked by the county warden last Sunday for keeping too many trout.

But a club paper, a subject of an article by itself, requires two important ingredients: A sufficient amount of funds for paper, ink and mailing, and an ambitious individual to serve as editor. (It can turn into quite a chore unless you find the right person.)

One easy way to get started: Contact your local high school principal and request permission to use their duplicating machine (unless a member has one at his disposal). Most school administrators will cooperate gladly, providing you supply paper and ink. For spirit duplicators (like "Ditto") the stencils are very inexpensive, and no ink is required. Have your editor type up the material at a given date, and bring both stencils and papers to the school (or other location) to be run off. Often a student can run them through for you. Other source for printing. A local church or community services building.

WHAT COMES NEXT

The ideas talked about here, if followed, should put your CB club on the local map as a going concern. But the *real* test is whether or not your group can get into the CB big-time. Nothing is more frustrating than being part of an "in" crowd that no one's heard of.

Next month we'll discuss the ways some CB clubs achieved regional and national prominence, and show how your organization can swiftly follow suit. Included will be Novel Club Projects; sure-fire Community Services Programs; "Showmanship, Salesmanship and You," and How to Run a Successful CB Jam-boree.

Maintaining Interest in Meetings

The key word is variety. Offer something for everyone and change format frequently. Here are some tried-and-proven ways top-notch CB clubs operate:

- Refreshments at every meeting
- Begin promptly as scheduled
- Monthly club paper
- Raffles and auctions
- Outside speakers
- Quizzes with prizes
- Movies on radio communications
- Station visits to member shacks
- Frequent contests
- Member talks with prizes to best
- Manufacturer demonstrations
- Club discussion periods
- Christmas parties—for families
- Visits to radio and TV stations
- Presentation of news from members
- Question-and-answer sessions



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SOMETHIN' FOR NOTHIN' BATTERY SUBSTITUTE

by JIM RUSS, KKK3421

How often have you shied away from transistorized mike preamps just because of battery costs or your desire not to be stuck at a crucial moment with a dead battery and no immediate replacement? Well, weep no more, because there is an extremely *clean* source of DC current available in any tube-type CB rig.

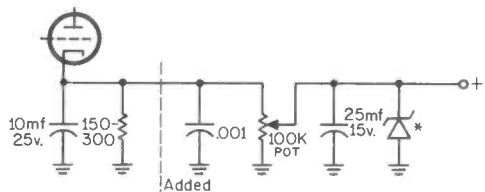
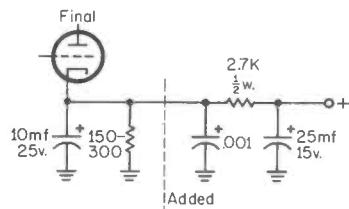
Sitting at my hobby/work bench the other day, I was bemoaning the fact that considerable filtering would be necessary before the regular B-plus of my rig would be clean enough to operate a transistorized mike preamp. Also, the size of such a filtering network would be prohibitive.

Then it hit me — back in the early days of Hi-Fi, we used to run the Hi-Fi preamp tube filaments from the DC current of the final audio output tube cathodes. Since these cathodes usually run anywhere from six to twelve or more volts during both transmit and receive (on a CB rig), I reasoned that this would more than suffice to operate a mike preamp.

Well, after experimenting an hour, I found that it wasn't quite all that simple, but I *did* come up with a workable source of DC as had been anticipated — one resistor and two capacitors completed the job. My circuit and an alternate are outlined in this article. With a little patience you should be able to come up with a similar circuit which will be compatible with your rig. Please note that the Zener diode regulator in the alternate circuits is optional, but will prevent voltage from going above its cutoff voltage.

Now, I'm not saying that this will work with every CB rig on the market, but as cheap as it is to install, it's at least worth a try.

As a mike preamp in my own installation, I constructed a miniaturized version of the Brute Force Booster (by Selma Heller, KBC3014, June '64 issue of S9). In order to match polarity of the mike preamp with that of the CB rig, I had



*Optional Zener Diode Regulator of Desired Cutoff Voltage

to reverse all polarities and use an NPN rather than a PNP transistor in the circuit. (Whatever type transistorized preamp you use, it *must* use NPN transistors to be compatible with this circuit.)

To keep the noise down in my version of the Brute Force Booster, I tried each NPN transistor in by "junk" box, finally selecting the one with the greatest gain and the least amount of noise.

How does it work? Well, the rig is now one of the loudest I have ever heard. Also, by using the DC from the cathode of the final audio output tube, I never have to buy batteries or worry about being stuck with a dead one.

If you've got the guts to go into your set and make the simple modifications outlined here, you should end up with one of the loudest stations in your area. Anyway, good luck!

S9

READERS' BONANZA!

TAKE YOUR PICK OF THESE GIFTS!

For some time now we have been offering all kinds of free goodies with new subscriptions and renewals, we vary them each month. But we always seem to get requests for bonus items which haven't been offered for several months and that sends the Circulation Department into a tailspin. So here it is, a grand round-up of all the various offers, tied in with an exciting offer for you to get several of these things FREE with your subscription or renewal.

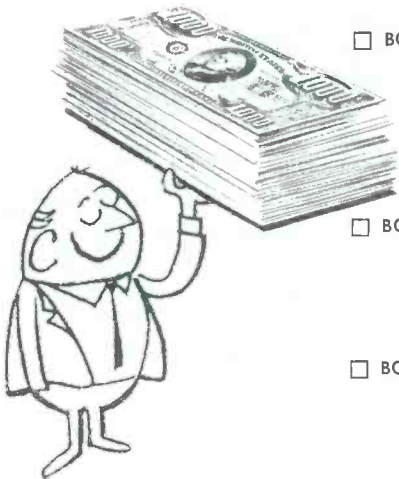
BONUS ITEM #1 — Large 3 inch, 3 color, "Monitor Channel 9" decal. Regularly sells for 50¢.

BONUS ITEM #2 — 50 Project Aid cards which you are required to use to notify the FCC whenever you use your CB rig to help a stranded motorist or for any emergency use. These sell for \$1.00.

BONUS ITEM #3 — S9's CB Interference Manual, a complete handbook covering the elimination of TVI, detection and elimination of power line interference and noise, and CB mobile ignition noise. Everything you need to know, including details of obtaining free TVI high-pass filters. The books sells to non-subscribers for \$1, you can get it FREE.

BONUS ITEM #4 — CB Operator's Guide. Book containing summary of major CB rules and regulations, PLUS glossary of CB words and expressions, PLUS directory of CB channels, PLUS call area map and guide to all current prefixes, PLUS sample CB messages, PLUS 10-Codes, PLUS instructions for using REACT and HELP monitors.

BONUS ITEM #5 — Jazzy blue-with-white, red-with-white or black-with-white plastic badge engraved with your callsign. Big 1" high by 3" long. Just the thing for a jamboree or use the pin to stab artichoke hearts or your aunt Maud in the clyde. \$1.50 value. Specify color combination.



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September 1966 • 19

punchy galore



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The DDDR Antenna

A LOW-PROFILE MOBILE ANTENNA

by STANLEY BOYLE

MILITARY APPLICATIONS

During the past four years, a novel low-profile antenna of high efficiency has found increasing acceptance and application in military-aerospace systems. The DDDR (Directly Driven Resonant Radiator) in a new configuration, especially designed for commercial mobile services, is now manufactured by OMNICOM Company, a Los Angeles based firm, under Northrop license.*

Northrop Corporation has supplied and now offers various DDDR installations to the U.S. Army, Navy, Marine Corps, and NASA. Also, Northrop has recently introduced the DDDR into the foreign market. The range of sizes of the DDDR are as varied as the intended uses.



Figure 1

Figure 1 shows an experimental 30-76 Mc DDDR on an Army vehicle hood, while Figure 2 shows the engineer's conception of how this auto-tuned DDDR would be integrated into

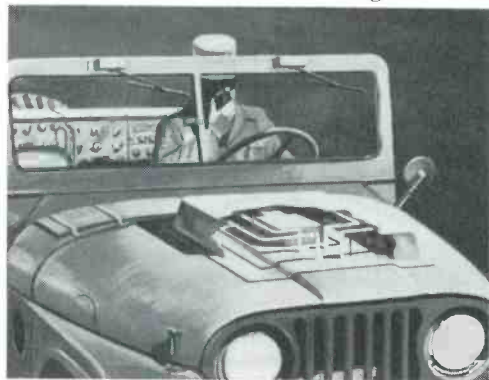


Figure 2

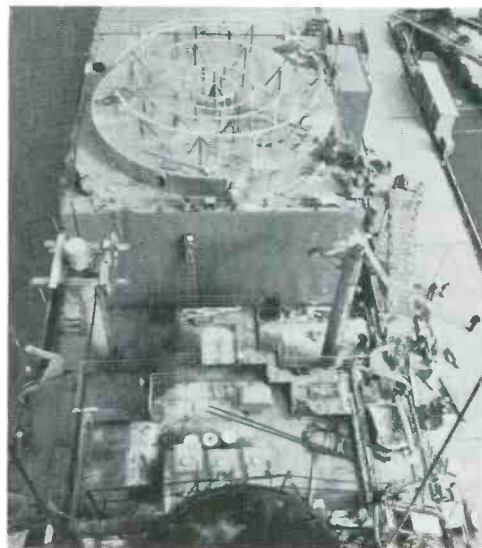


Figure 3

the vehicle hood structure. Figure 3 shows a 2-30 Mc five-element DDDR on a U.S. Navy Apollo Tracking Ship, the U.S.N.S. *Wheeling*. This particular installation was designed for input powers of up to 10 kw.

Figure 4 shows an experimental 300 Mc dual



Figure 4

* Northrop Corporation Patent No. 3,151,328.



Figure 5

transmitting and receiving system for an Astronaut's Helmet, while Figure 5 shows an engineering concept of a completely integrated Helmet-DDRR assembly.



Figure 6

Figure 6 is a low-frequency DDRR of a spiral configuration that is hydraulically erectable. It is mounted on a standard U.S. Army 2 1/2 ton truck and the intended use is classified.

These figures shows variations in size from 3" diameter and 1/2" high (Astronaut Helmet) to 33' diameter and 6' high (U.S.N.S. *Wheeling*).

In its original Northrop design, all configurations were circular. However, after a period of detailed mathematical analysis and laboratory experimentation, Northrop engineers determined that other geometrics could be used. Thus, DDRRs now appear as spirals, squares, rectangles, straight-lines, etc., each designed for a particular application, but all having the same, low-profile, high radiation efficiency, low VSWR characteristics.

THEORY

Basically, the DDRR is a $\lambda/4$ (quarter-wavelength) resonant antenna. It produces an omnidirectional, vertically polarized radiation pattern as does a regular $\lambda/4$ vertical antenna. Although the height of the DDRR is relatively small, usually about 1/20th to 1/25th that of an equivalent $\lambda/4$ vertical whip at the same frequency, it maintains an efficiency that approaches as close as 1.5 db to the full-size radiator. At heights of approximately 1/10th the $\lambda/4$ antenna height, the efficiencies are nearly equal under most installation environments.

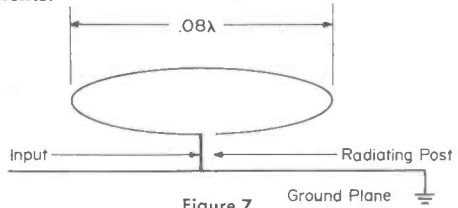
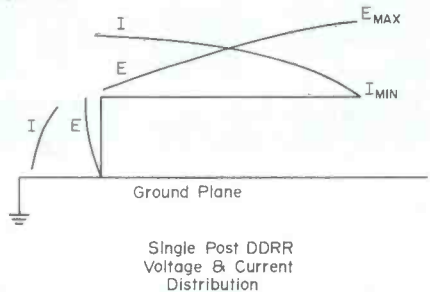


Figure 7

Figure 7 is a diagram of the DDRR in its simplest form. The grounded post is the radiating element. Heavy current flow in the post creates vertically polarized, omnidirectional radiation. The diameter of the circular top load is slightly less than $.08 \lambda$. The total length of the post plus the top load = $\lambda/4$; thus the antenna is resonant at a frequency f_r .

If we represent the DDRR as a straight, input grounded, $\lambda/4$ transmission line, then Figure 8 shows the voltage and current distribution.



Single Post DDRR
Voltage & Current
Distribution

Figure 8

It is apparent from Figure 8 that the current is maximum in the post, which is most desirable for high radiation efficiency, while the voltage is maximum at the far, or open-circuit end.

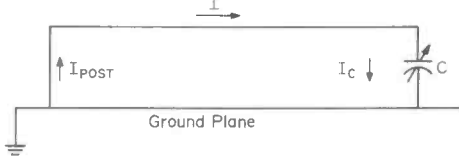
Since the DDRR antenna is resonant, no input matching network with its attendant power loss is required. Matching simply consists of moving the power input tap point up and down the post (or on the top load if need be) until the VSWR is minimum (usually 1.1:1 or less in practice) at the resonant frequency.

A question frequently asked is: "Why is the radiation vertically polarized, since most of the DDRR is in a horizontal configuration parallel to the groundplane?"

The answer is that the top load is so close to the groundplane that equal and opposite

current is induced into the groundplane, effectively cancelling the horizontal radiation. The better the conductivity of the groundplane, the more nearly complete is the horizontal component cancellation.

The DDRR is tuned over a range of frequencies by the addition of a variable capacitor at the far end of the transmission line, as shown in Figure 9. The length of the DDRR is reduced to less than a quarter-wave in over-all length to a degree determined by the maximum tuning capacitor value.



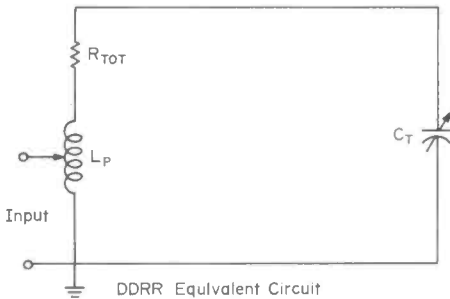
Single Post DDRR Tuning
Figure 9

It should be noted that in Figure 9 the capacitor adds a path for the current, I , to flow in a direction opposite to that of the post radiation current. This current cancellation effectively reduces the radiated power. Thus, C is limited to a value so that at maximum capacity, the current cancellation causes no more than $\frac{1}{2}$ power loss (-3DB) in radiation. This capacity range is equivalent to a frequency range of 1.5 to 1.0.

For example, a DDRR can be designed to tune from 20 to 30 Mc with a radiated power that does not change more than 30 db over the frequency range involved.

Since the tap point is adjusted for a minimum VSWR at a single frequency f_r , the VSWR rises as the DDRR is capacitively tuned to other frequencies.

In normal practice, if the tap point is set at mid-range of the tuning capacitor, the VSWR will not rise above 2:1 anywhere within the tuning range. Most military applications have been held to a maximum figure of 1.7:1.

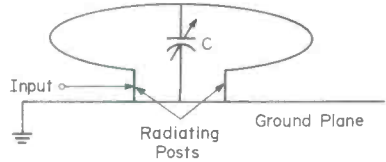


DDRR Equivalent Circuit
Figure 10

The DDRR circuit is really an auto-transformer, allowing matching of the input impedance (usually 50 ohms) to the high-Q secondary. The DDRR is also excellent as a receiving antenna because its sharp-tuning characteristic (narrow bandwidth) acts as a pre-selector before the receiver, boosting the signal-to-noise ratio. It is extremely helpful in both transmit and receive modes where multi-chan-

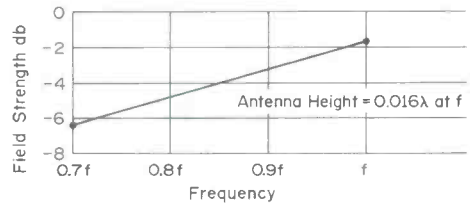
nel data transmission is required in a crowded spectrum.

The DDRR shown in Figure 7 is referred to as a single post DDRR. By increasing the length to $\lambda/2$ and grounding both ends of the transmission line we obtain a double post DDRR. One post is fed, and if tuning is required the line is shortened and the tuning capacitor is added at the center, or $\lambda/4$ point.



Double Post DDRR
Figure 11

Figure 11 shows a double post DDRR. The current in the two posts are in-phase, thus aiding each other and this antenna exhibits a higher radiation resistance than the single post type. Both types have the same high radiation efficiency, high-Q, low-VSWR characteristics.



Field Strength vs. Frequency
Fixed Height Single Post DDRR

Figure 12

Figure 12 shows Field Strength vs. Frequency for a single post DDRR of fixed height.

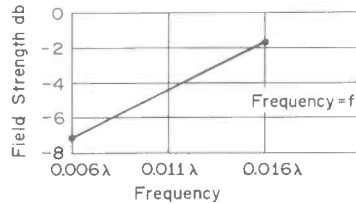


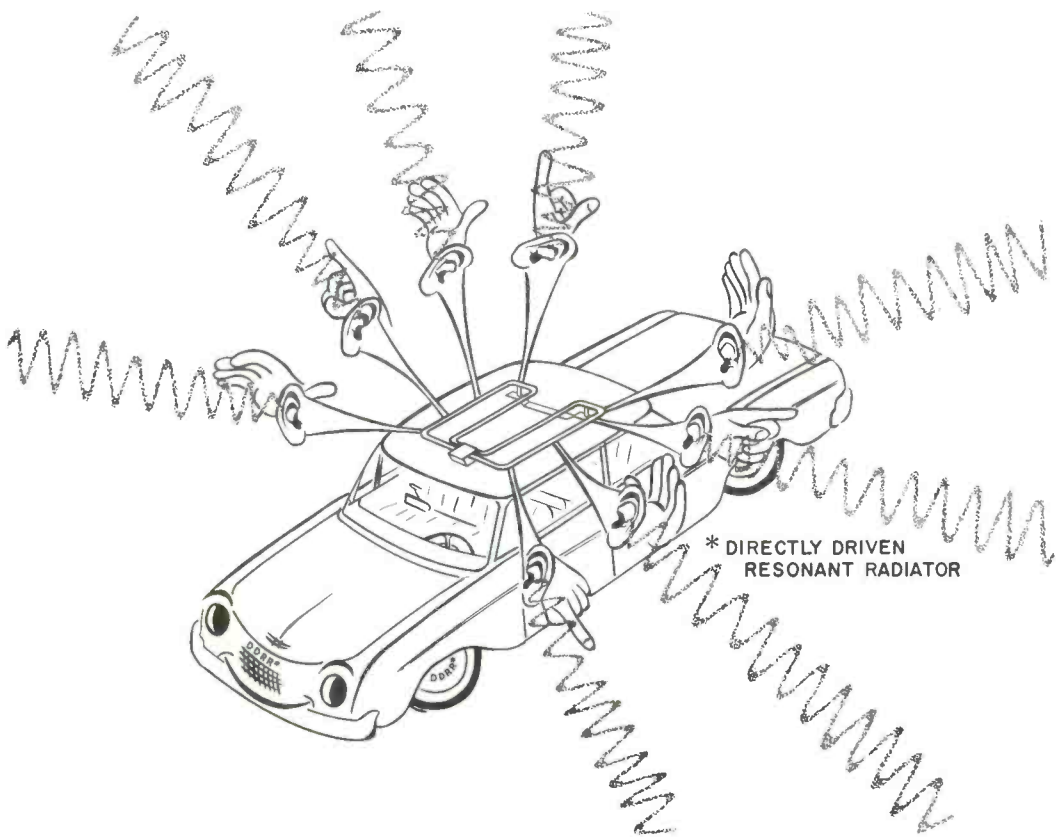
Figure 13

Figure 13 shows Field Strength vs. Height for a single post DDRR of fixed frequency.

COMMERCIAL APPLICATIONS

To take the unique characteristics of the military DDRR and incorporate them into a competitively priced commercial version, required a combination of cost-effectiveness and engineering ingenuity that has resulted in a design of utmost simplicity.

Since commercial mobile installations may have power outputs of nearly 200 watts, it was apparent that the cost and size of a tuning capacitor to withstand the high voltage was not compatible with the commercial DDRR price.



ing or dimensional requirements.

Advantage was taken of the fact that commercial uses had individual channel assignments, usually a pre-set channel for a vehicle, thus eliminating the quick-tuning, broad spectrum requirement. The commercial DDDR utilizes a novel, almost square geometry with a "U" shaped, hairpin loop added in the center of the top load transmission line. Tuning is accomplished by sliding "shorting bars" on the hairpin or on either side of it, effectively reducing the over-all length of the antenna.

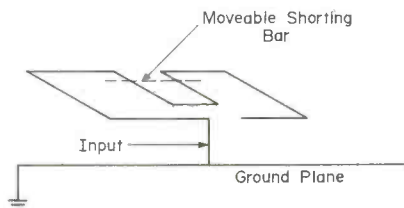
With this arrangement, no degradation in radiation efficiency occurs because no tuning

capacity is added which allows a radiation cancelling capacitor current. Also, high power input is no problem because the free end of the DDDR is supported by a high voltage insulator and not a capacitor.

The sturdy, commercial DDDR has the same high radiation efficiency, low VSWR, high-Q characteristics of its military counterpart and does not suffer from radiation degradation with tuning. In fact, since the height remains constant, the efficiency rises as the frequency is increased, since the effective height is raised.

Figure 14 shows the basic operation and design of the commercially available DDDR.

The commercial DDDR, manufactured by OMNICOM Company under Northrop Corporation license, is distributed in the U.S. and foreign countries by Master Mobile Mounts of Los Angeles.



Single Post Commercial DDDR

Figure 14

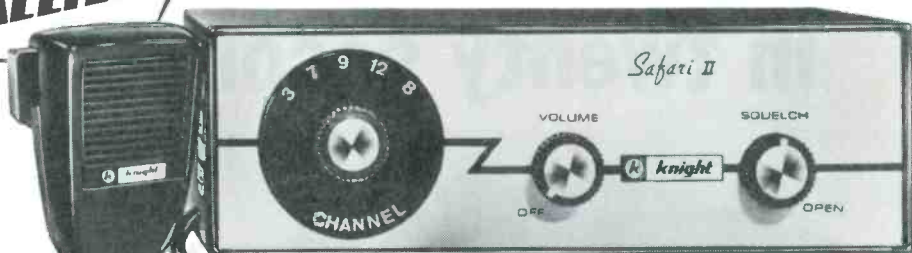
REFERENCES

1. Karl H. Kriz, DDDR, A New Mobile Antenna, Communications, August 1965.
2. J. M. Boyer, Hula-Hoop Antennas: A Coming Trend?, Electronics, January 1963.



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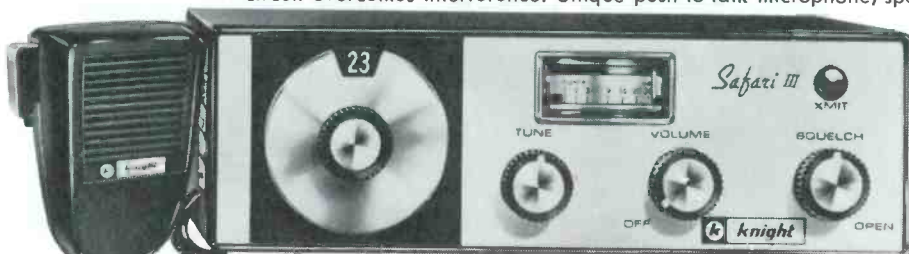


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AMPHENOL

THE ALL BANDER

AN EXPERIMENTER'S DELIGHT—

1 TRANSISTOR + 1 DIODE

MAKES AN ALL BAND RECEIVER! COVERS CB TOO!

by ROBERT McAIRe, KIC7608

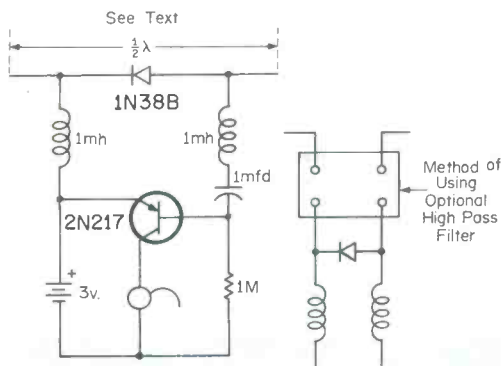
All of us interested in communications can use an extra receiver from time to time, trouble is that the more desirable ones seem to cost so doggon much. One of the prime attributes of a good receiver is its frequency coverage—ham band only, shortwave broadcast band only, CB only, VHF only, or possibly continuous tuning from the broadcast band through 10 meters (30 mc/s). Those are your choices, and they involve tuned circuits, bandswitches, IF cans, and all sorts of other gadgetry.

Our "All Bander" covers *any and all* radio frequencies, and does it *without* a single IF can, bandswitch, or other cost adding factor. Not only does it duplicate the frequency coverage of the most expensive receiver on the market, *it can actually surpass it!* Yes, the All Bander covers the VHF portion of the spectrum.

Of course, there's a *slight* catch. Firstly, being only a 1 transistor amplifier hooked up to a crystal detector, it isn't going to be any world beater in either the sensitivity or selectivity departments. Biggest catch is that the set is tuned across the wide span of frequencies by means of the length of its antenna—the longer the antenna the lower the frequency(ies) which it will receive—and with a short antenna you will receive VHF frequencies. Since it doesn't seem to be the most practical thing in the world to receive (and an antenna tuned to the broadcast band might be as long as 900 feet!), our little receiver is primarily intended as a curiosity for experimenters and as a short distance receiver for the higher frequencies (it's dandy on CB).

THEORY

The usual way to determine receiver frequency is by means of a tuned circuit consisting of a coil and a capacitor which are resonant on the desired frequency. With a variable capacitor in this circuit, the resonance may be changed and the frequency therefore varied



PARTS LIST

- 1 2N217 transistor
- 1 1N38B diode
- 1 .1 ufd capacitor (Lafayette 99-6066)
- 1 1 megohm resistor, 1/10 watt (Ohmite or IRC)
- 2 2 1-mH RF chokes (Miller 70F103AI)
- 1 3K magnetic headset (Argonne/Lafayette 99-2542)
- 1 high pass filter (Ameco HP45) (optional, see text)
- 1 3-volt battery

Misc: antenna wire or rabbit ears, chassis, battery clips

(hence, the receiver is "tuned"). In receivers covering wide spans of frequencies, the values of the coils and capacitors used in these circuits must be greatly changed to achieve maximum performance on each band. The band-switching method is used to accomplish this, as it places into your receiver's circuit the coil/capacitor combination to give the best results for each band on the receiver.

Our All Bander eliminates all of this because the usual resonant circuit functions have been taken over by the antenna. The antenna we use for this is a half-wave dipole, a sky hook known for its characteristic resonance at the

specific frequency for which it is cut—the frequency being exactly twice the wavelength of the antenna. Thus, a dipole measuring $5\frac{1}{2}$ meters long (since a meter is 39.37 inches, this would mean $5\frac{1}{2}$ meters is 216 inches, or 18 feet) would be resonant at 11 meters—the wavelength of the 27 mc/s Citizens Band. As a matter of fact, an 18 foot dipole hooked to the All Bander actually turns the set into a little CB receiver! And so it goes; all you do is compute the wavelength of the desired frequency, divide it in half, cut your antenna per our instructions, and you're in business!

WAVELENGTH/FREQUENCY

The way to figure out the wavelength for the frequency you want is to divide the frequency (in kilocycles) into the number 300,000. For example, say you wanted to set the receiver up on the VHF aircraft band at 120 mc/s. The frequency 120 mc/s must first be converted to kilocycles by moving the decimal point 3 places to the right, making it 120,000 kc/s. Dividing 120,000 into 300,000, you get a wavelength of $2\frac{1}{2}$ meters. A half-wave dipole here would have to be $1\frac{1}{4}$ meters, or 41 inches in total length.

A dipole consists of two equal lengths of wire, so for our 120 mc/s antenna, each leg of the dipole will be $20\frac{1}{2}$ inches in length. May sound a little complicated, but it's actually

quite simple if you stop to think it out.

THE RECEIVER

The receiver consists of nothing more than a handful of parts, headed up by a cheap (60¢) 2N217 transistor and a 1N38B diode. You can construct the whole thing in a small plastic box or pill bottle, as the parts layout is not critical.

Our suggestions for specific components are shown in the accompanying parts list. Parts were selected for small size in our particular instance, but you can substitute any of equal value.

One suggestion you might like to try is a pair of indoor TV "rabbit ears" for the antenna on VHF frequencies—they should enable you to tune right from 50 through 200 mc/s.

The set is quite un-selective and if you have a nearby standard broadcasting station, you may find it pouring through regardless of the length of your antenna. Our suggestion is to get a "high pass filter" and connect it in the circuit between the antenna and the diode. This should eliminate most signals below 50 mc/s. Actually, the set will be picking up a rather wide swath of frequencies to each side of the specific one to which your antenna is tuned, so don't panic if you goof the cutting on the antenna.

S9

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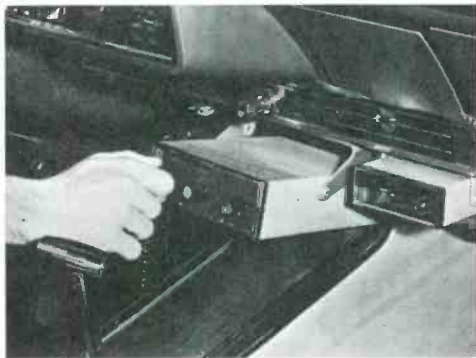
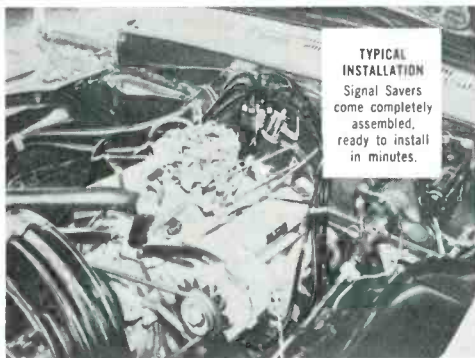
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But by grounding noise interference so it doesn't "clobber" the incoming signal, you can extend your reception range. Even double it. That's how *Signal Saver* works. It places a noise blanketing shield around the sources of the noise—the distributor, coils, spark plugs and high tension leads. In short, *Signal Saver* keeps the noise out, lets the message in.

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SON OF BRAINBUSTER

SO YOU THINK YOU CAN IDENTIFY CB RIGS?

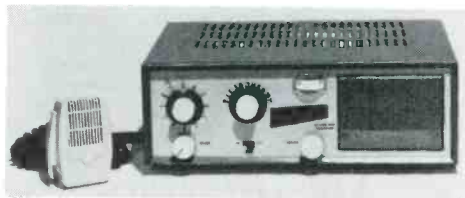
A few months ago we ran a "Brain Buster" puzzle which proved to be so popular that we are still receiving entries (even though the winners were announced in February). Want to have another go at winning a free S9 subscription? OK, you're on!

This time all you have to do is correctly identify some CB rigs from their photos. Now, this isn't quite as easy as it sounds because we have thrown a few real toughies into the pot. You must correctly identify each and every unit by the manufacturer's name *and also* the model number and/or name of the set. In the instances where the same manufacturer produced different models which were identical in appearance, we will accept any of the model numbers or names used for the set in the photo. Model numbers and manufacturers names have been removed from the sets in our photos. This is a very rough puzzle.

In our last contest we awarded the free subscriptions to the first entries with the correct answers, this produced unhappiness from western readers because they don't receive their copies as early as the S9'ers in the northeast. This time, to make everybody happy, we will toss all of the entries into a barrel and not look for any winners until September 15th. This should give everybody plenty of time to enter. On September 15th, we'll start reaching into the stack of entries and when we have extracted three with the complete and correct answer, we'll award three one year subscriptions or subscription extensions. In the event we don't have any 100% correct entries, our winners will be chosen from the three entries with the most correct answers in the first 100 letters checked. Winners will be announced in the November issue. Address all entries as follows: Brain Buster, % S9 Magazine, 14 Vanderventer Ave., Port Washington, N. Y. 11050. (Entries which cannot be easily read will be discarded, so please print in ink or typewrite. Decision of judges will be final and entries will not be acknowledged. All become the property of S9 Magazine.)



1



2



3



4



5



6



7



8



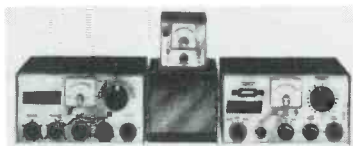
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10



11



12



13

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**Transmitter delivers 3.5 watts minimum output; separate indicators for carrier on and modulation. *RF gain control.*

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**Built-in low pass filter, minimizes T.V.I.*

**Hand wiring. *Teflon covered wire.*

**Locking switch makes rig tamper free.*

**Set padlocks to dash bracket. *Heavy duty, commercial type microphone.*

**High efficiency transmitter delivers 3.5 watts minimum output to antenna. \$318.*

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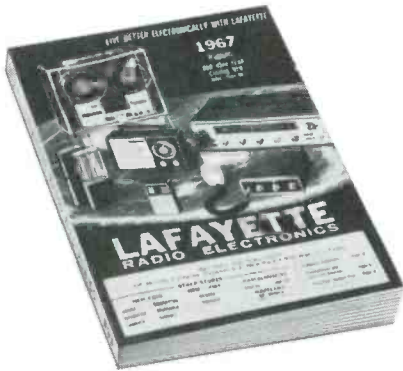
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ON THE COUNTERS

Manufacturers are invited to send in press releases and photographs for listing here, for which there is no charge or obligation to advertise. Readers should take note that we have not investigated the products, claims, or services listed in On The Counters, and cannot be held responsible for any erroneous information contained here.



Lafayette Radio, Dept. S9-I-6, 111 Jericho Turnpike, Syosset, N. Y. announces the availability of their new 512 page 1967 catalogue. The volume, now a standard reference work around most CB shacks, is sent without charge to all those requesting one. In the catalogue are thousands of illustrated listings covering CB, Ham radio, hi-fi and stereo, auto accessories, cameras, tools, etc. This is well worth having and we suggest that you write now for one before the usual rush for them in a few weeks takes them temporarily out of stock.

E. F. Johnson Company, Waseca, Minn. is now sending out two nice booklets. The first is called "Why Single Sideband?" and is a rather well expressed explanation of what the whole thing is all about—its advantages, how it works, etc. The second booklet is a complete listing of all E. F. Johnson dealers throughout the U.S. and Canada—and you'd be surprised to see how many people sell Johnson gear! Even in Kittanning, Pa. and Lethbridge, Alberta! Both booklets sent to all S9'ers requesting them.

You Part 15'ers, TV fans, and Hams out there will appreciate this—Class D operators

please do not read. This is an announcement of a 60 foot antenna tower produced by the Tristao Tower Co., Hanford, Calif. 93200. It can be installed in a small backyard without the need of guy wires, can be cranked up and down for antenna changes/repairs, or during emergency weather conditions, and may be bolted to the side of the house for additional support. This is the Model CZ, and the manufacturer will be happy to send you the name of your nearest distributor or some additional specs on it.

Oh, before we get too far down the road from E. F. Johnson, we wanted to be sure to tell you about their new Power Pack unit which can be used by owners of all Johnson transistorized gear (Messenger 100, 111, 300, 323 or 350). The Power Pack plugs into the rear of the CB rig and provides up to 8 hours of full power, portable operation before the nickel cadmium battery requires recharging. The multi purpose carrying handle contains the bracket for the microphone and a standard SO-239 coax connector for the antenna. Price is \$69.95, and that includes a 22 inch center loaded antenna, a 4 foot whip antenna, battery charger, and a leather carrying case.

Johnson has also brought out a CB version of their famous "Matchbox." This is a device designed to work together with their Antenna Meter to correct an improper impedance match between the transmitter and antenna of any base or mobile CB station. The Matchbox can take an installation with an existing SWR as high as 5:1 and correct it to 1.1:1 or less, and what a difference that kind of change will make in the old signal! Price of the Matchbox is \$15.95. The Antenna Meter tells you your present SWR reading and will aid you in properly adjusting the Matchbox, it sells for \$14.95.

The Turner +50 is a new desk microphone designed especially for those tricky installations which require the use of long lines between the operating position and the rig. If you have tried to operate in this manner you've noticed the loss in volume on your modulation—the Turner +50 has a compensation control for this loss at the rear of its stand. Within the stand is a 2 stage transistor amplifier with a dual output impedance of 150 or 600 ohms. Price is \$75 from Turner Microphone Co., Cedar Rapids, Iowa.

Demco Electronics, Bristol, Ind., has a nifty,

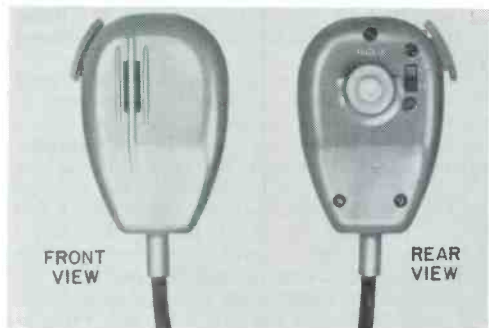


nice, neat, new transistorized rig called the Chalet. Operating on 6 channels, the Chalet is a 12 volt DC and 115 volt AC (with outboard 115 VAC PS), which may also be operated (by means of a converter) on a 6 volt system, such as encountered in VW's and other cars with oddball electrical systems. Comes with a set of Channel 9 rocks for \$124.50. Manufacturer is Demco Electronics, Bristol, Ind.



work output circuit, receiver has $\frac{1}{2}$ microvolt for 10 db s/N ratio, 9 transistor/2 diode design, 3 pounds light, with PTT mike, for \$49.95! This is a real breakthrough and the use of a combination transmitter/converter (transverter) instead of a transmitter/receiver (transceiver) is a welcome innovation to the art of CB equipment design.

Lafayette Radio, who already have more walkie-talkies than an army division, have added two new units to their vast line. The HA-303 is a 2-watt unit which operates on 3 channels—probably a world's record! Unit has 13 transistors and 4 diodes, ANL, AVC, squelch, range-boost modulator, battery minded meter, optional 110 VAC PS, telescoping whip antenna, and just about all the other features of a base station except the swivel chair. Price is \$54.95 per unit. Their other WT is the GT-50, a 2 channel 500 milliwatt job—sort of the younger brother of the HA-303. Price is \$39.95 each.



Master Mobile Mounts, 4125 W. Jefferson Blvd., Los Angeles, Calif. 90016, has branched out into the microphone field with their new "Master Constant Level Microphone, Model MCL-4." The MCL-4 is a complete audio system in a palm-sized solid state unit. A novel aspect of this mike is that it has what might be termed a "universal" output impedance and can therefore may be used to replace any and all mikes—carbon, crystal, ceramic, dynamic, or whatever, without any modification. In addition to this, a built-in speech preamp/compressor provides for a 12 db increase in talk power (400% over systems without the MCL-4). For further details contact Master Mobile and tell them that Uncle Tom from S9 sent you.

Multi-Elmac Company, 21470 Coolidge, Oak Park, Mich. 48237, is one of the pioneer CB manufacturers. They've come out with a sharp little 2 channel transistorized rig which will forever banish the old wheeze about "CB communication is great, but it's still priced a little too high for my budget." Would you believe: 2 channels (furnished with crystals for 1 channel), a receive-converter used in conjunction with your auto radio to give you dual conversion (the only connection to the auto radio is the antenna connector), 3 watts output, pi-net-

Our own evil genisuses on the S9 creative staff have devised a whiz-bang card for your mobile unit's window. This looks exactly like the cards issued by those usually issuing such cards to all manner of search/rescue and emergency vehicles for easy identification by police and fire officials. The S9 card announces in bold black letters on a bright red background "EMERGENCY RADIO UNIT" and should come in as a handy item for CB groups performing such communications services, also for individuals who monitor 9 for emergency calls. While no guarantees are made for its effectiveness, it might be noted that early experiments in 5 major cities in the east and midwest indicated that law enforcement officers "on the beat" apparently seemed duly impressed with the cards when displayed in the windows of parked CB mobile units. The design is shown actual size and in full color in this issue of S9, and may be removed from the magazine. Reprints on heavy card stock are available for those who don't want to scalp their copy of S9, or for those who want additional cards. Price is 50¢ each, or in bulk at 25¢ each in lots of 25 or more. Order from Emergency sign, S9 Magazine, 14 Vanderver Avenue, Port Washington, N. Y. 11050.



Reports



E.C.I. COURIER TR-23S TRANSCEIVER

The most in the least space—that's what you have with the E.C.I. Courier TR-23S CB Transceiver. Completely solid-state, including silicon type transistors throughout, this job packs *all* 23 crystal-controlled transmit and receive channels into a package the size which is only 1 $\frac{1}{8}$ " x 6" x 7" (H.W.D.). Other features, often found only in larger equipment, include: crystal frequency synthesizer, full-time automatic noise limiter, adjustable squelch, transmitter-on/modulation-indicator light, illuminated S-meter, maximum legal transmitter-input power of 5 watts, push-to-talk operation, high receiver-sensitivity, excellent image rejection using double-conversion superhet, IF bandpass filters for sharp selectivity and the most desirable audio output quality, built-in loudspeaker, external receiver-speaker jack, PA operation with separate speaker.

RECEIVER

The receiver starts off with an RF stage followed by two mixers, one for the first conversion to 10.6 mc/s, the other for the second conversion to 455 kc/s. The conversion oscillators for both mixers are crystal controlled by the frequency synthesizer. Two 455 kc/s IF amplifiers are used with a bandpass filter at the input and the output of the first IF stage. The filters, each of which consists of three capacitively-coupled tuned circuits, provide sharp skirt selectivity while at the same time furnishing a relatively flat response in the pass-band to ensure adequate high-frequency audio response at the detector output for maximum speech intelligibility.

The output of the last IF stage goes through another tuned circuit to the diode detector which also furnishes the AGC voltage that is applied to *all* stages preceding the last IF. The AGC thus maintains relatively little change in AF output level with wide variations of RF input signal strength.

A series-gate automatic noise limiter pre-

cedes the AF section which consists of a pre-amplifier, a driver and a push-pull power-output stage. Squelch operation is obtained by cutting the pre-amp on or off with a gating transistor that is driven by its own pre-amp to provide high squelch sensitivity.

FREQUENCY SYNTHESIZER

Before discussing the transmitter lineup, let us take a look at the frequency-synthesis scheme which is rather unique. It embodies a "high-frequency" oscillator that can be switched to six different crystals, a "low-frequency" receiver oscillator and a "low-frequency" transmitter oscillator, each with four switchable crystals.

During receive, the HF oscillator signals (spaced 50 kc/s apart between 37.6 and 37.85 mc/s) heterodyne with the incoming CB signals in the first mixer to produce a conversion to one of four different frequencies between 10.595 and 10.635 mc/s. These in turn are converted to 455 kc/s by heterodyning in the second mixer with one of four different crystal frequencies (spaced 10 kc/s apart between 10.14 and 10.18 mc/s) from the LF receiver oscillator.

On transmit, the HF oscillator signals are combined with the LF transmitter-oscillator frequencies (spaced 10 kc/s apart between 10.595 and 10.635 mc/s) in a transmitter mixer to produce an output directly on the desired channel.

Although the affair requires a few more crystals than normally used for the particular application, their cost is more than offset by the fewer components and transistors used that would otherwise be required with solid-state circuitry. In addition, it also results in a considerable saving of space.

TRANSMITTER

The synthesized oscillator signals from the transmitter mixer are coupled to a buffer stage ahead of a driver stage that pushes the final-amplifier to the legal input of 5 watts. Both the driver and the final are modulated by the receiver AF power-output amplifier, with the first two stages of the AF section providing speech amplification for the microphone.

Transmitter output is taken from the emitter of the final transistor and goes through a Pi-L network (double Pi) which provides a match to 50-ohm antenna loads (retuning generally is not required for 35-100 ohm loads) and which also minimizes harmonics. During transmit, a lamp, shunted across the output line, lights up red to show you're on the air. It glows brighter with modulation and thus also serves as a modulation indicator. Circuit transfers between transmit and receive are accomplished with a miniature relay.

POWER SUPPLY

The unit operates directly from 12 VDC systems (negative ground only). Should the

polarity of the applied voltage be inadvertently reversed, a high-current diode, shunted across the 12-volt supply line, will conduct heavily and blow out a fuse in the line, thereby protecting the transistors and components from damage.

Zener-diode voltage regulation is included to stabilize the oscillators and maintain optimum performance of all stages during wide excursions of input voltages such as may be experienced during varying battery-charging rates with mobile operation.

PUBLIC ADDRESS

When the synthesizer selector switch is set to PA (between channels 22 and 23), all the crystals are cut off, disabling the HF oscillator and thus deactivating both the receiver and the transmitter. At the same time the AF volume control is cut into the mic circuit to serve as a mic gain, a particularly desirable feature for optimum PA operation without unwanted audio feedback. A separate PA-speaker jack is provided. Both the internal speaker and the external receiver-speaker circuits are disabled during PA operation.

CONSTRUCTION

The layout and construction of the TR-23S are a marvel to behold. With all that goes into this little job, you'd expect to find a mess of overcrowded components, but quite contrariwise, the parts, many of which are miniaturized, are neatly arranged with easy accessibility on a single printed-circuit board made of glass epoxy.

Servicing is simplified with the schematic designation and the value or type of each component printed on the board *alongside* (not under) each part. Furthermore, the manual contains an X-ray view of the circuit board showing the circuit runs and besides again identifying the components, it also indicates the E.C.I. part number alongside of each one. The loudspeaker, which faces the top of the set and is above the circuit board, thus normally covering a good many of the parts, can be removed during servicing simply by pushing its magnet out of a retaining ring on the board.

The entire assembly is supported in a sturdy metal framework with a solid panel and is then housed in a heavy-gauge metal case which is chrome-finished. The panel is black with a heavy trim of chrome. Included on the panel are the squelch and volume controls, channel-selector switch with illuminated dial window, transmitter indicator lamp and illuminated S-meter. The mic, power and antenna connectors are at the rear along with the external and PA speaker jacks.

PERFORMANCE

Performance-wise the TR-23S held its own with or, in many respects, bettered that of many of its big brothers, whether solid-state or vacuum tube affairs.

S9 Lab measurements closely paralleled the

manufacturer's specifications, turning out as follows: Receiver sensitivity, 4 uv for 10 db S/N ratio (30% modulation at 400 CPS); adjacent-channel rejection, 50 db minimum (carrier to carrier); IF bandpass, 6 kc/s at 6 db points; spurious responses and images, down at least 50 db (secondary image 45 db); squelch threshold sensitivity, .1 uv; AGC characteristic, 6 db output variation with 86 db RF-input signal change (1-20,000 uv). Transmitter power output with 12 VDC source was 3.25 watts, 4 watts with 13.6 volts. Modulation ran to 90% with peak limiting using the microphone supplied with the unit.

Operationally during road tests, performance was excellent with good noise-limiter and squelch action, the latter being quite immune to triggering by noise pulses when set at the threshold; in fact, during several trips over 30 mile routes on expressways and country roads, the squelch threshold required virtually no re-setting for a given sensitivity under various road conditions.

In spite of the fact that the speaker is mounted facing the top of the case instead of facing the front directed at the user, the AF output quality was excellent with fine voice intelligibility, thanks to the high-frequency response by the characteristics of the bandpass filters.¹

The transmitter signal, as heard at our base station, also produced good AF quality with adequate modulation; however, it was found necessary to work quite closely to the mic to ensure full modulation.

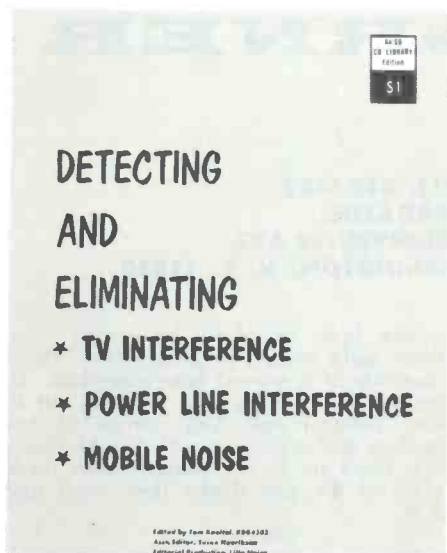
The channel numbers on the selector dial are quite small and the illumination is such that makes it difficult to distinguish them, unless they are observed from a side angle. We understand that a modification in this area is under consideration. On the other hand, in spite of its small size the S-meter can be easily read and the transmitter-on lamp shows up brilliantly.

In addition to being small in size, usually more dependable and of longer life, transistorized gear also has the advantage of very low current drain requirements, an especially desirable feature where battery power must be conserved. On receive the TR-23S draws 120 m.a.; on transmit, 1 a. (no modulation), 2 a. at full modulation.

Matching its little size, the E.C.I. Courier TR-23S CB Transceiver carries a relatively small price tag also, especially considering all its features and quality, said price being \$169.00. The package is supplied complete with all crystals, p.t.t. mic, connecting cables, gimbal mounting bracket and all necessary hardware. For cases where exceptionally high noise conditions are apt to be encountered, a true noise blanker is available as an accessory in module form, requiring only four connections to the set. It is priced at \$10.00. An a.c. operated power supply also will be shortly available for base-station operation with the TR-23S. The manufacturer is E.C.I. Electronics Communications, Inc., 56 Hamilton Ave., White Plains, N. Y. 10601.



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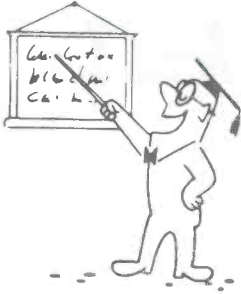
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KYLE'S KORNER

WRITE TO:

JIM KYLE, KEG3382
% 59 MAGAZINE
14 VANDERVENTER AVE.
PT. WASHINGTON, N. Y. 11050

Elimination of ignition noise and similar raucous outbursts from the receiver becomes a recurrent question showing up in the mailbag.

So let's take a little space here at the head of the column to discuss this matter for a while. As good a place as any to open the discussion is a problem from KAL0379, who has his rig mounted in a Volkswagen 1500 station wagon and reports overwhelming ignition noise, both from his own and from other cars.

He would like a cure which can be applied to the set rather than to the vehicle since he's limited for space in the motor compartment. While he didn't mention it, there's an even better reason for trying to make the cure in the rig: No matter what is done to your own car, it will have no effect on noise produced by other cars. Only improved noise rejection in the rig itself can reduce other autos' noises.

Since my main interests have been in the area above 25 mc for many years now, and ignition noise is one of the main problems of this region, I've accumulated a respectable number of noise limiter circuits. Unfortunately, virtually all of them have some severe limitations.

One type can be built which will totally reject ignition noise, but it requires considerable lab equipment to line up right after it's finished and the components are somewhat more than just costly. Thus it's not really practical for adding to existing rigs.

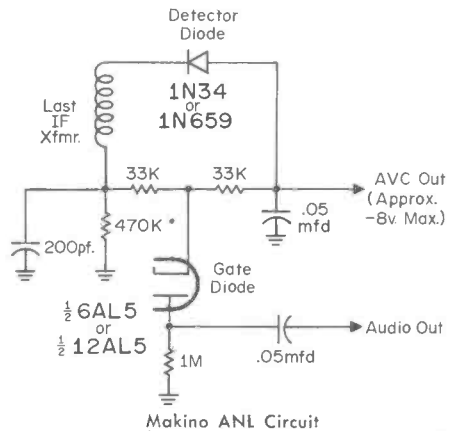
One commercial transceiver *does* incorporate this circuit as a major design feature. The bad part is that this transceiver is one of the most expensive on the market, as a direct result of the added circuitry required for the noise-killing feature.

If you're interested in almost absolute elimination of noise at any cost, drop a line to T.K. (not, please, to this department since it will only slow things down) and he'll forward your request on to the manufacturer, who in turn will probably be sending you quantities of literature on this rig.

But for now, let's look at some "second-best" ways of fighting the problem.

One of the most effective noise limiters I have ever worked with is the "Makino" circuit which I translated from engineeringese into ordinary language back in 1962 and which

has since been picked up by several manufacturers and a number of other writers. There's a schematic of it around here someplace. The procedure for installing this is to rip out the existing detector and ANL circuit of your transceiver and replace it with the Makino as shown. Don't try to use semiconductor diodes in place of the gate diode; they won't quite hack it.



Makino ANL Circuit

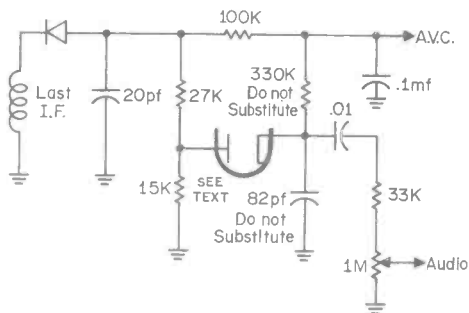
A few cautions are in order. This works magnificently with some sets and not at all with others. I have never been able to make it perform in any Utica design, and several people have told me of difficulties making it play in Sonar rigs. The older Lafayette models, on the other hand, take to it as a duck to a farm pond.

If you're using selective calling, be cautious. Some types of selective-call units are clobbered by the Makino. It can't tell their code pulses from ignition noise, and takes them out also!

In any set, the S-meter will probably read much lower after the conversion is made. This is due to the different detector circuit, and I've never found a satisfactory way to lick the problem so my recommendation is to consider this the price you pay for less noise. Audio remains good, and the set doesn't tend to overload unless you try to change other parts of the design to make the S-meter read right again.

If all these cautions tend to frighten you

away from the Makino circuit, you might want to try the Rate-of-Change limiter which also appears someplace nearby. This one senses ignition spikes by their rapid rise and fall, rather than by their high voltage levels, and so gives about 30 db more rejection than do conventional circuits.



Rate-of-Change ANL

However, the Rate-of-Change doesn't quite come up to Makino performance when the Makino is working properly.

Nothing is particularly critical about the Rate-of-Change circuit. The noise-killing diode in this one can be the emitter-base junction of a transistor; I have used a 2N170 here with considerable success. Thus this whole thing can be transistorized for use with all-transistor rigs.

When installing any of these circuits, be extremely careful about getting all the screws back in tight when you button the rig back up. If the case just sort of hangs together, it's not going to do much shielding, and no noise killer can do its job right if the noise can come into the circuit someplace *after* the killer. A solid case offers protection against this possible trouble.

If all else fails, you might investigate the possibilities of getting a job as pinboy in a bowling emporium. While this won't do anything for your transceiver, it will condition your ears to high noise levels so that you can at least coexist with your crackling mobile installation!

NON-COMMUNICATIONS PROBLEM

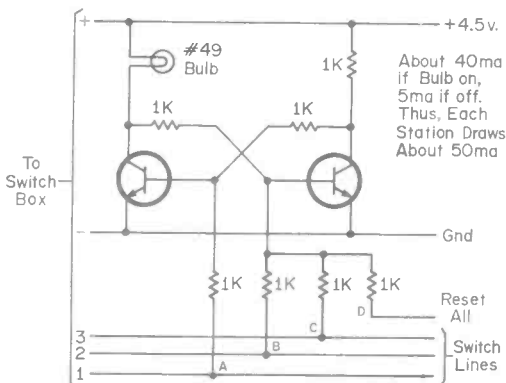
I have an electronic problem which I know you can help me with. I am a college student majoring in education. My advisor-instructor has a new theory on teaching and has enlisted my aid in helping him test it. This requires a testing circuit.

What we need is a set of three push buttons, connected to a panel board. For each set of buttons, there are three lights on the board. When one button is pushed, it lights the corresponding light on the board. Here's the hard part: the light must stay on until another button is pushed. Then the first light must go out and the second light come on, staying on as did the first. Only one light can be on at any given time.

This could be done with the use of flip-flop circuits, but there's more to the problem.

There will be approximately 30 of these sets, so whatever we use must be inexpensive. Can you be of some help?

—W.B., Broderick, Calif.



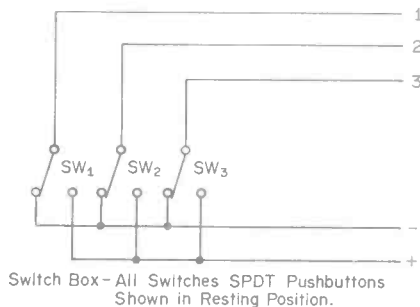
Indicating Flip-Flop—3 Req'd at each Station (One per Switch)

Legend to Connections: A—Connects to Switch Line of Appropriate Switch

B—C—Connects to Other Two Switch Lines

D—Connects to General Reset Line

You all know that I normally shy away from any kind of design work, but this one struck my fancy. I hasten to point out that this is only a paper design, and it may or may not work the first time out. Should it fail, the reason will probably be a wrong value for some part or parts; this means that you can undoubtedly make it work using the same circuit, with some juggling of values. With that understood, let's get to "how it works" part.



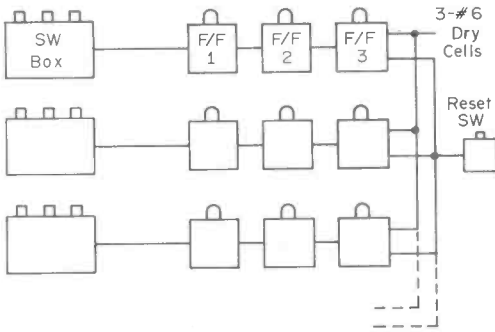
Switch Box—All Switches SPDT Pushbuttons Shown in Resting Position.



Req'd: 3 F/F per Student
1 SW Box per Student
1 Control Reset SW for System

Approx. Cost per Student (Bulk & Surplus Prices)

1F/F: 2 Xstr (25¢ ea.), 7 Res.(5¢ ea.), 1 Bulb (10¢ ea.) = .95¢
3 F/F — 2.85
SW Box: 3 Pushbuttons (25¢ ea.), 1 Box (65¢) 1.40
\$ 4.25
+ Cable



1. INSTRUCTOR PRESSES RESET, ALL BULBS GO OFF.
2. EACH STUDENT PRESSES 1 OF 3 BUTTONS, CORRESPONDING BULB LIGHTS.
3. BULB REMAINS LIT UNTIL STUDENT PRESSES ANOTHER BUTTON OR INSTRUCTOR PRESSES RESET.

The schematic shows only one flip-flop stage. Each set uses three of these stages, with the base connections wired a little differently for each stage. The difference is called out on the diagram. Each switch box contains three SPDT push-buttons wired as shown, without any other components in the box. A 5-wire cable connects each switch box to the panel. In addition to the flip-flops and the switches, there is a control reset switch available at the panel. This switch is wired to point D of all the flip-flops in parallel.

When a student presses any one of his three switches, the flip-flop having point A connected to the corresponding switch line will come on and its bulb will light. The other two flip-flops each have either point B or point C connected to that switch line and so they are turned off. Only the three flip-flops corresponding to that switch box are connected to these switch lines, so no other lights are affected. If another switch on that box is pressed, the first light goes out and another goes on in the same way.

If the instructor desires, he can press the control reset button and turn off all the bulbs, since this resets all the flip-flops; with 30 sets hooked up, this would be about 4.5 amperes. Four No. 6 dry cells could supply this load for moderate periods, or a power supply for 5 amps loads could be built.

Since some 180 transistors would be required, quantity prices would apply to parts and a little careful shopping around such places as Transistors Unlimited (Jericho, N. Y.), Poly Paks (P.O. Box 942, Lynnfield, Mass.), Tepco (Box 508, Tullahoma, Tenn.), or Royal (Box 2591, El Cajon, Calif.) might be rewarding. It's a massive project you've tackled, and as a full-time worker in the computer industry my hat is off to you for your ambition. Good luck!

"MOBILE" BASE PROBLEMS . . .

Now I have a problem I hope you can help me with. I have a Dodge Motor Home with a complete body of molded fiberglass. I can't get an antenna to work. The SWR pins the needle on the bridge. I have made my own ground plane on top, 6 ft. by 9 ft., and have tried grounding from this to the frame and to the set and have met with failure in all instances. I

would like to know if you have any suggestions other than using a marine antenna. Thank you.
—W.L.T., Pinole, Calif.

You've already done the first thing I would suggest. Back in the "old" days of my commercial two-way work on high-band we were plagued with an infestation of fiberglass-bodied Fiat delivery vans; we found a 2-foot square of aluminum foil taped on the underside of the top worked wonders. But your 6 x 9-foot ground plane should have worked if this was the problem. Just a few days ago I read an unusual idea concerning mobile antennas—that the RF found a path along the car that was just the right length, regardless of how long was "right." I'm not saying I agree, but it's an interesting thought. Before giving up and getting one of those long marine whips, why not try running four or five radials from the base of a normal whip, all connected to the coax braid and all about the same length as the radials of an ordinary ground plane. Take them on around the sides and down if necessary; avoid sharp bends but don't be afraid to loop the wire back on itself so long as the bend is gentle. Who knows, it just might solve the problem—and it never hurts to try once!

ANTENNA STATIC

I have a CLR-I antenna on my base station which picks up rain static every time the sky gets cloudy. I have talked to several of my friends and they said that there wasn't any way to stop this. The static is very bothersome. I would appreciate it if you could tell me of a way to stop this static.

—S.J., Lawrenceburg, Ky.

It could be from any of several sources, of course. If it's ordinary thunderstorm static (coming in on any and all rigs in the neighborhood) Then you're pretty much out of luck. However, if it's what is called "precipitation static" then there's a cure that works in about 7 cases out of 10. If you get it while nobody else around you does it's probably the "precipitation static" variety. The cure is simple: wrap the ends of all elements (antenna and all radials) with vinyl insulating tape such as Scotch #33 for about a foot back from the ends, and be sure to completely seal the ends. While this sounds somewhat kooky, there's a valid explanation: when thunderstorms are building up dust tends to increase, and each dust particle gets a tiny electric charge. As the dust strikes the antenna, it collects each tiny charge until it builds up a fairly good one, which then leaks off into the air from any sharp corner or edge such as an element end. The tape prevents the leak-off by covering all the edges—and it's the leak-offs which make the noise you hear. When a really good storm is brewing some night, you can sometimes see this charge leaking off—it's a bluish haze, very dim. More often you find out it's there by either hearing it, or getting bitten by it if you pull the plug from your antenna jack at the wrong time!

12 VOLTS FROM 6, NEXT CHAPTER

Recently you showed a schematic using two 6-volt batteries and a DPDT switch to overcome the problem of a 12-volt rig and a 6-volt vehicle. I have haunted all the electrical shops and automotive parts stores but can't locate a DPDT switch capable of taking care of that hookup. Could you give me more information on that switch? Where can I get one, even by mail? Also could you use more detail on the hookup. I am no electrician but with some help I figure my 15-year-old son and I may be able to do the job. None of the local mechanics or radio-TV repairmen seem to understand the setup. Thank you.

—Mrs. S. McN., Somersworth, N. H.

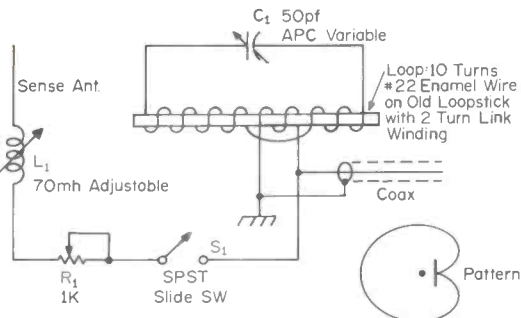
Well, the heaviest-rated switch I can find in my collection of catalogs is the Cutler-Hammer type 8825K5, which is rated to handle 20 amps at 28 VDC and was stock number 34 B 555 in Allied Radio's Catalog 230B. Allied is located at 100 N. Western in Chicago, and the price in this 1964 catalog was \$1.27. I don't find it in more recent catalogs, but this doesn't mean that it's not still available. You could also use a heavy-duty relay but it would both cost more and consume some of the battery power to keep held in. For instance, the Potter & Brumfield model PR11DY operates from 6 VDC and has contacts rated for 25 amps—but it costs over \$6. The switch would do as well at ¼ the cost. The whole idea is to have both batteries connected in parallel when charging, and transfer one of them to be in series with the other when using the rig. The 20-amp rating ought to be large enough if you take care never to operate the switch with the radio on or the motor running, because this is the current it can switch; usually it can handle around 50 per cent more after switching.

AUTOMATIC DIRECTION FINDER?

I have one for you here that I hope you will spend just a few extra minutes on and come up with a real good one for us. Here on the Pacific Coast we landlubbers have been called on to assist in locating fishing boats by the Sheriff's Marine Posse and the local Coast Guard office. We need a good directional antenna, loop or otherwise, that we can pinpoint locations with by triangulation in these cases (some of which are of emergency nature). I have a couple of small selsyns which I can use, and have a fairly good DF compass head. These may help. Would like to be able to use this mobile as well as fixed. Can you give us an assist?

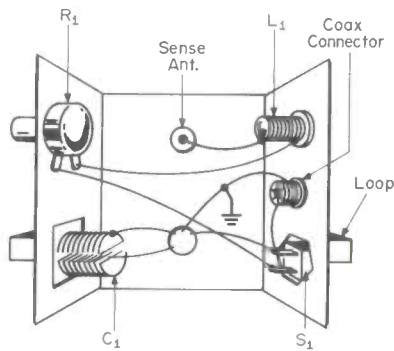
—J.E.D., Arcata, Calif.

You asked that I not rehash some ham hand-book, but one of the finest DF setups I have ever seen in operation was described on pages 216 through 219 of the 1960 edition of ARRL's "Mobile Manual for Radio Amateurs." Since this edition is no longer available, and in addition the design was published for operation at 3.8 mc rather than in the 27-mc region, I have modified it and the sketches should be around



DF Schematic

here somewhere. The first one of these I ever saw in action led its user to a well-hidden transmitter some 10 miles away just as rapidly as he could drive (I was following him and had trouble keeping up). Unlike most loops, it gives only one null as it is rotated, and the null is sharp enough to get a good fix on the first try. The loop core is a ferrite rod salvaged from a defunct broadcast loopstick, while the sense antenna is a small loaded whip (a hand-held transceiver whip would be fine) about 10 inches long. When everything is put together, first tune the loop to frequency by adjusting C1 for the strongest received signal. The rest of the tuning should be done using an actual incoming signal for the test signal, whose direction is known. Disconnect the sense antenna by opening S1 and re-peak the adjustment of C1. Close S1 and turn R1 to its minimum resistance position. Next adjust L1 for strongest received signal, swinging the DF unit as necessary. The last turn will be quite critical. Now point one side (not an end) of the DF loopstick toward the distant transmitter and turn R1 slowly through its range. If you didn't get a definite null, swing the DF 180 degrees and try again. When you find the null adjust R1 for minimum signal. Readjust L1 slightly for an even deeper null. Repeat this several times, adjusting R1 and L1 in turn, until you get the deepest possible null. Lock all the adjustments with a drop of Glyptal or sealing wax and you have it. You can lock the unit into a rotor with the null set in a definite direction and do remote-control



Parts Layout

Entire Circuit Fits Into "U"-Shaped Half of Small Minibox. Be Sure All Components Are Enclosed As Shown, for Shielding.

direction-finding. Should you need more sensitivity you could add an RF amplifier unit inside the box. Incidentally, when measuring the nulls or when using the DF unit, use the S-meter rather than relying on your ear. It's much more accurate. Good luck!

As you already know, there are several companies that manufacture transistorized vibrators, but due to some design faults or other causes, they do not seem to work for any length of time. Many of them do not even work when they are new. Can you tell us a little more about these devices? I have seen several articles on them, but none I have built seem to work after the project is finished. Thank you.

—W.H.H., Salina, Kan.

Of course, the subject could fill a lengthy article—but the meat of it is unfortunately all too simple. The basis of the transistorized power supply is a "magnetically coupled multivibrator" circuit; such a circuit depends very thoroughly upon the characteristics of the associated transformer for proper operation. While it's true that just about any transformer can be used, this requires special tailoring of the rest of the circuit to match the transformer you pick. Obviously, no manufactured plug-in device can match all the transformers used in all sets, and the result is the situation you already know. The "transistorized vibrator" usually consists of a pair of transistors together

with a feedback transformer which keeps them oscillating under normal design conditions. If plugged into a rig which draws either more or less current than the designers allowed for, the device may fail to switch. When it fails, one of the two transistors usually turns into a puddle of hot germanium within a few milliseconds. When it goes, the other one follows suit rapidly. You don't get second chances very often with transistors.

A truly "universal" transistorized vibrator would have to include a pair of good quality power switching transistors, a pair of driving transistors to assure proper switching every time, and an internal "clocking" oscillator to drive the drivers. This makes a minimum of five transistors, and the tab for semiconductors alone would be around \$10. The other parts required would push parts cost out to the \$20 neighborhood, so you can see it's not such a good item commercially. For the same investment, you could build a complete transistor-oriented power supply which would also include automatic protection against overloads.

END OF THE LINE

Which brings us to the limits of the space for this month. Next month, more answers. In the meantime let's hear from you. The 10-20? Kyle's Korner, % S9 Magazine, 14 Vandeventer Avenue, Port Washington, L. I., N. Y. 11050. Till then, so long.

S9

THE TALK-A-BOOST

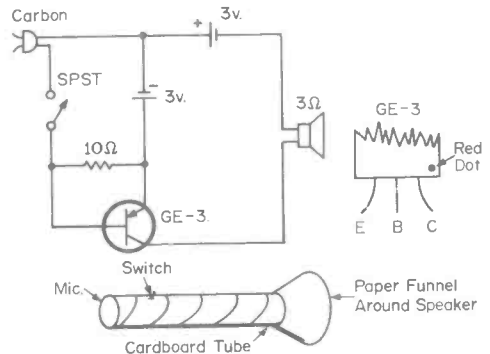
Well it's not going to shatter any windows or knock the hats off people standing in its immediate vicinity, but the TALK-A-BOOST does come in handy when overriding the usual murmur of a crowd. Let's face it, you could yell and accomplish the same thing, but this will save your voice. It's a little PA system which puts out somewhere around a third of a watt. We've found it useful at club meetings and during two search operations.

We built our TALK-A-BOOST inside the cardboard tube used for kitchen paper hand towels and it worked out fine, costing a few bucks in total.

The only problem we ran into was audio feedback, an annoying squeal caused by the sound bouncing forth between the microphone and the speaker. This was cured by placing a heavy paper "funnel" around the speaker. I guess a similar "funnel" could be placed over the microphone if further isolation might be required.

The transistor is one of the General Electric entertainment replacement types, it sells for about \$2.25. If the GE-3 isn't readily available, you can also use a Delco DS-520,

Tung-Sol ET-6, Workman TV PT-40 or POWER-12, or a Sylvia SYL-109.



PARTS LIST

- 1 General Electric GE-3 transistor
 - 1 10 ohm resistor, 1 watt (Ohmite or IRC)
 - 1 3 ohm speaker (Lafayette 32-0927 or equiv.)
 - 1 SPST push button switch (Switchcraft 961 or equiv.)
 - 1 carbon microphone
 - 4 1½-volt batteries
- Misc.: cardboard tube, paper funnel(s)

HOT-SHOT CARD

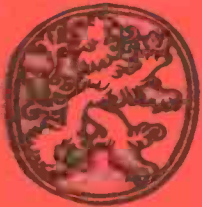
ID CARD FOR EMERGENCY RADIO UNITS

With this flashy looking ID card in your car's window you'll look like the sharpest thing this side of Batman or Napoleon Solo. Actually, S9 has received many requests from emergency communications and rescue groups to supply them with some sort of "official" looking window card. Until now, nothing had been standardized, some clubs were using hand written cards, others printed cards, still others used nothing.

We surveyed the types of "ID cards" used by professional agencies and have designed ours along similar graphic lines. Clubs can have their members remove this ID card from S9, have it numbered and signed by a club officer, and then place it in a conspicuous place in the vehicle. Individuals may also use it.

We suggest that the card be made more-or-less permanent by placing it on a piece of heavy cardboard and completely covering the whole thing with a layer of Scotch Brand "Magic Transparent Tape." Another suggestion would be to have it laminated in plastic. Do *not* glue the cut-out from S9 to the cardboard backing as the printing on the other side of the page may bleed through.

If you do not wish to cut your copy of S9, we have color reprints available, printed on heavy stock. They are 50¢ each; or 25¢ each for bulk orders of 25 or more. Order from Emergency Card, S9 Magazine, 14 Vanderverter Ave., Port Washington, N. Y. 11050.

LICENSE PLATE NO.		CERTIFICATE NO.
EMERGENCY RADIO UNIT		
THIS CERTIFICATE HAS BEEN ISSUED TO THE OWNER OF THIS VEHICLE EQUIPPED WITH EMERGENCY RADIO COM- MUNICATIONS EQUIPMENT. NOT TRANSFERABLE.		
NAME		
ISSUED BY		
EXPIRATION DATE December 31, 1967	



ODDS 'N ENDS

by HERB FRIEDMAN, KB19457/W2ZLF

As a general rule, I question so-called "test reports" which attempt to establish an order whereby one model of something is a "best buy" while another is, say, "inadequate," while yet another is "not recommended" or something to the same effect. Don't get me wrong, test reports have their place as long as they stick to the facts and don't start nit-picking whether it has round or square handles, or whether it can do any number of jobs better than something else. A report such as a lab check in S9 which gives you the measured specs and then states that a certain piece of gear is a "best buy" for a particular use is fine—every other similar item of the same general construction and performance might also be a "best buy," and the S9 lab would say so (no, I have nothing to do with the S9 Lab).

My objection is confined to the instance where one piece of gear of many is selected as a "best buy" over all others. I have in mind a particular instance when the most famous of consumer test publications rated a certain washing machine a "best buy." Every serviceman, including my Old Man who serviced washers, knew the washer's control was a *dog* and required frequent replacement. Yet thousands of the "best buy" washers were sold as soon as it was rated, and those controls put me through college, technical school, paid for two rooms full of Ham gear and paid off the mortgage on a home in the country. Financially, I have nothing against "best buys."

But since I question whether one, or two, or even a panel of "testers" can decide what is best for thousands of individuals, I was somewhat pleased to find on my newsstand a *CB Buyer's Guide* that actually tested most CB transceivers and then didn't have the audacity to even attempt to establish "best buy" ratings. (Spot checking the *Buyer's Guide's* test against the ones done by S9's Lab indicates similar test objectives and results.) The particular value of every CB transceiver feature was explained and then it was left up to the reader to decide which features specifically met *his needs*—no arbitrary standard of what was best. Unfortunately, the *CB Buyer's Guide* grew feet, and was last seen walking out the door hand-in-

hand with T.K. (and I always thought he had a hang-up on women, not paper) so I can't even tell you who published it—only that I found it on a newsstand.

If you want to see how your transceiver stacks up against the others, or you want a virtual catalog of actual operating performance, try to latch onto the *CB Buyer's Guide*. (Kneitel, return that issue or else.)

SWL RECEIVERS

For you CB'ers who have taken up short-wave-listening and have requested some poop on buying an SWL receiver we are sorry to announce that we are not equipped to suggest a particular receiver because we (the whole S9 staff) haven't tried them all.

For you boys on Guam who asked: we know of no commercially made SWL receiver that tunes from 144 to 1000 mc. We don't know what in heck is up there that's interesting to listen to, but if you must, try to borrow some army UHF gear from your base commander.

For those who want to build their own we'd suggest the top receivers in the Knight (Allied Radio) and Heath lines. We've tried them and they do a reasonably good job, and you certainly get your monies worth. Stay away from the lowest priced kits, they're for rank beginners, and as soon as you get them assembled and working you'll be unhappy with their performances. (You like to get what you pay for.)

Commercially built receivers?—we've had both good and bad luck with the Hallicrafter's, Hammarlund and National lines (not every Cadillac is a great car). As a general rule, the more you spend the more you get. A decent receiver starts at about \$100. For less than \$100 figure adequate—not good—performance to about 14 mc (even if the receiver goes to 30 mc).

Perhaps you CB-SWL's can *con* the SWL column into doing a round-up of SWL receivers.

Next month, "Can you really get up to 40 miles per gallon with those special auto accessories and meters?" Or, "Why T.K. had to trade in his Jaguar."



**"I'm on the go.
Give me an
all-channel
solid-state rig
that can go
with me."**

**"Who's got
money?
Not me."**

**"I don't want
a toy.
Give me
a base
station rig
with muscle."**

**"I want
the best.
Don't
show me
anything
else."**



**Courier
has something in CB
for everybody!**

Courier Vacuum-Tube CB Rigs



COURIER 23

23-channels. America's biggest-selling CB rig.

Why shouldn't this be the fastest selling CB rig in the country? Dollar for dollar, it's packed with CB's most wanted features: 23 crystal-controlled channels. Dual conversion. Transistor power supply. Illuminated S-RF meter. Illuminated channel selector. PA system. Auxiliary speaker jack. Single-knob tuning. Modulation indicator. Range-expander.

Now only **\$169**



COURIER 23-PLUS

23-channels. More sensitivity, less noise. No plus on price.

A 23-channel CB rig with extra muscle. New cascode front end and nuvistor mixer pull in all channels louder and clearer than any other tube rig in its price class. With every known feature to dampen and filter out the noise you don't want to hear. Plus: Dual conversion. Transistor power supply. Illuminated S-RF meter. Illuminated channel selector. PA system. Auxiliary speaker jack. Single-knob tuning. Modulation indicator. Range-expander. Complete with crystals for all 23 channels.

Only **\$189**



COURIER ROYALE

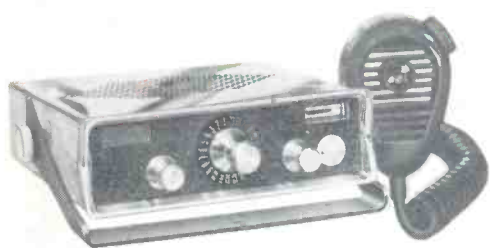
The CB rig we built for the boss.

The rig you'd own if you owned the company. Hand-wired, hand-soldered circuitry. Hefty chassis with tubes (including a Nuviator) and overpowered transformer. All 23 channels, with all crystals supplied. Collins filter, cascode front end, adjustable noise limiter for selectivity, sensitivity, quietness. Plus a new exclusive range-expander and speech compressor. The finest CB rig made.

Complete **\$249**
(and we mean complete)



Courier Solid-State CB Rigs



COURIER TR-23S

23-channels, compact, exclusive "Safety-Circuit".

Silicon transistors throughout bring the size down to 5¾"W x 6¼"D x 1⅞"H. Crystals supplied for all 23 channels. Illuminated S meter. Illuminated channel selector. PA system. Auxiliary speaker jack. Single-knob tuning. Modulation indicator. Exclusive Courier "Safety-Circuit" to protect against mismatched antenna, incorrect polarity, and overload. Plus the industry's biggest guarantee: 10 full years!

Complete **\$169**



COURIER TR-12

A 12-channel solid-state powerhouse.

Silicon transistors throughout. A compact 5¾"W x 6¼"D x 1⅞"H. "Uni-crystal" operation—single crystal for transmit and receive. Illuminated S meter. Illuminated channel selector. PA system. Auxiliary speaker jack. Single-knob tuning. Modulation indicator. Exclusive Courier "Safety-Circuit" to protect against mismatched antenna, incorrect polarity, and overload. Channel 9 crystal supplied. Guaranteed for 10 full years!

Complete **\$139**



COURIER TR-5

5-channels. Transistors and top performance at a budget price.

A lot of CB rig for under \$100. Silicon transistors throughout. A compact 5¾"W x 6¼"D x 1⅞"H. Illuminated channel selector. Transmit indicator. Auxiliary speaker jack. Single-knob tuning. Modulation indicator. External channel socket. Channel 9 crystals supplied. Exclusive Courier "Safety-Circuit" to protect against mismatched antenna, incorrect polarity, and overload. Plus Courier's exclusive 10-year guarantee!

Only **\$99**



All Courier solid-state CB rigs are guaranteed for 10-years! See details on next page.

Courier Solid-State CB Rigs are Guaranteed for 10-Years!

10 Year Guarantee

Under normal use, if anything goes wrong with your Courier solid-state CB rig within 90 days after you buy it, return it to your Courier dealer or to us and we will repair it or replace it free of charge. And after 90 days and until ten years have passed, we'll do the same for only \$6.00, including shipping charges back to you (excepting microphone and crystals).

Every solid-state Courier CB rig carries our manufacturer's guarantee for ten full years from the day you bought it. No other CB line offers this guarantee. No fine print. No strings. Just a straightforward guarantee we can offer because we build Courier CB rigs the way rigs should be built.



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A Subsidiary of

electronics communications inc.

56 Hamilton Avenue, White Plains, N.Y.

**Check yourself off for a Courier!
Fill in and mail this coupon today!**

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- Courier TR-23S
- Courier TR-12
- Courier TR-5

Tube

- Courier 23
- Courier 23-Plus
- Courier Royale

Please tell me all about the Courier rig I've checked above.

Name _____

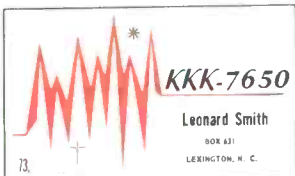
Address _____

City _____ County _____ State _____

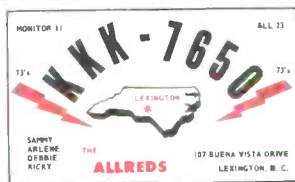
Buy QSL Cards wholesale and Save



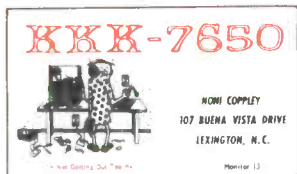
Card #220 2 Colors \$11.40



Card #184 2 Colors 9.95



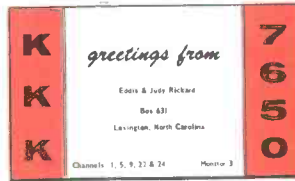
Card #166 2 Colors \$ 9.95



Card #208 2 Colors 9.90



Card #185 2 Colors \$10.95



Card #228 2 Colors 10.90

THE BEST BUYS ALWAYS COME FROM THE CBC CLUB

- 1- Finest quality QSL Cards offered anywhere. Thousands of satisfied CB'ers have used over 25 million cards with the best results in obtaining replies.
- 2- The Sept. Specials are printed on our very best 10 pt. Supergloss card stock. No finer stock available at any price.
- 3- CBC Club offers a guarantee that takes all the risk out of buying your QSL Cards thru the mail.
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- 5- Top quality but low wholesale price. Compare with others and you will find that for the same quality of card its about one half the price.

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- 1- Blue & Red - - \$1.00 Extra
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Please do not order color combinations other than those listed above - - Example - - Gold & Blue cannot be ordered on the same card.

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	up to 150 mi.	150 to 300 mi.	300 to 600 mi.	600 to 1000 mi.	1000 to 1400 mi.	1400 to over 1800 mi.
8 LBS.	82c	88c	94c	97c	\$1.15	\$1.34

CBC WHOLESALE CLUB
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Box 631
Lexington, N. C. 27292

GUARANTEE

IF YOU ARE NOT SATISFIED WITH THE QUALITY OF WORK DONE BY YOUR CBC CLUB, THEN RETURN THE 1,000 QSL CARDS **POSTPAID** AND THEY WILL BE REPRINTED FREE OF CHARGE. (THIS GUARANTEE DOES NOT COVER ANY ERROR MADE BY THE CBER WHEN FILLING OUT THE ORDER BLANK, OR CHANGE OF ADDRESS OR CALL LETTERS.)

Most people would like to save \$3.00!! And now YOU can. Just order your QSL card from your CBC Club & the Post Card Back will be printed free of charge. (other QSL printers charge up to \$3.00 for this service)----- Because this is a free service no plain backs are available at this time. All QSL cards printed by your CBC Club have this well known Post Card Back.



Names _____

Address _____

City _____

State _____ Zip _____

Call Letters _____

Channels _____ Monitor _____

Price _____

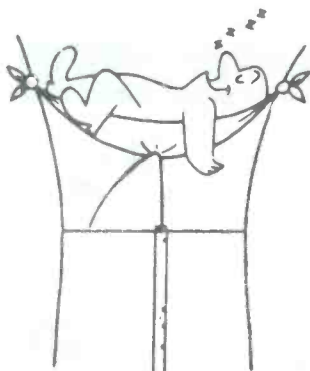
Card # _____

Colors _____ & _____

Postage _____

Total Enclosed _____

Just fill out the attached order blank carefully and plainly. Double check all information. Mistakes cause delays and unsatisfactory cards. Your CBC Club can not be responsible for incorrect information on order blanks.



ANTENNAS

by LEN BUCKWALTER, KBA4480

DISAPPEARING COIL

Introduced recently at a San Francisco trade show was Antenna Specialists new "Solid Circuit" series of antennas. A spokesman for the company told us it's considered one of the most important innovations in design to come along in many a year. The "solid circuit" idea refers to a technique used in making the antenna's loading coil. It eliminates conventional turns of wire around a plastic form. Instead, the coil is made in the form of a printed circuit. It is housed inside a tear-drop shape, as shown in the illustration.

Several benefits are stated for the solid circuit models. For one, the technique is said to streamline the coil assembly and reduce overall antenna height. (The whip is a stainless steel section 40 inches long.) Also, there are several production advantages. The printed board is expected to keep frequency tolerance within close values and to minimize the number of production defects.

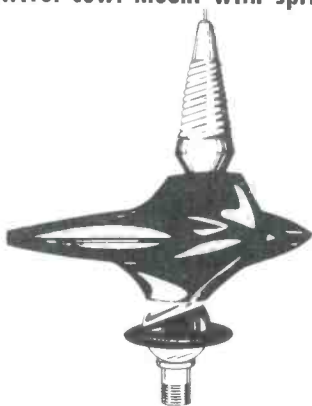
Another development from Antenna Specialists is less technical, but more startling. It's the "Speakin' Beacon." Each time you hit the mike button, the antenna lights up! At the antenna's topside, inside a glass tube, is a neon lamp. When normal radio-frequency energy circulates in the antenna, it develops voltages at the tip which are high enough to "fire" the lamp. Thus no separate lamp wires need be installed. The idea is a carryover from the old Ham practice of using a neon lamp as an indicator of RF energy. There's no significant loss of signal since the neon lamp operates on a fraction of a watt to develop its orange glow.

Although the lamp is mainly a novel piece of gingerbread atop a coaxial-type antenna, some may find it practical. Main advantage appears to be that the lamp serves as a direct, visual monitor of output. The lamp won't light unless voltages develop at the antenna tip. And as a "beacon" it provides a guiding glow said to be visible at a distance of about three or four blocks at night.

WHAT'S THE LOSS?

Many's the debate over the SWR—standing wave ratio—of an antenna and how serious it can be. If the system is perfect, ratio is 1-to-1. But no antenna can make that claim since perfection is well nigh impossible to obtain. When

Swivel cowl mount with spring



APPROX. PERCENTAGE POWER LOSS

SWR	APPROX. PERCENTAGE POWER LOSS
1 (to 1)	0
1.1	.6
1.2	1.8
1.3	3.7
1.4	6
1.5	8.2
1.6	11
1.7	13.5
1.8	17.5
1.9	21.5
2	25

SWR is higher than 2-to-1, you increasingly talk to yourself; a sizeable portion of RF power bounces back uselessly. Between extremes fall most antenna systems with middling SWR readings of about 1.1-to-1 at the low end, to about 1.8-to-1 at the high side. To reveal the effects in this region we've prepared a chart that shows how increasing SWR causes rising loss of power. The losses shown are approximate but give a good idea of what to expect.

One use for the chart is showing where you can carry an attempt toward perfect matching

continued on page 86

SUZIE SEZ...

SEND ALL ITEMS
AND PHOTOS TO:

Suzie Sez

% S9 Magazine

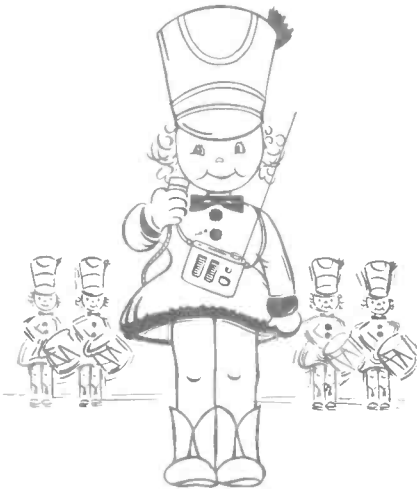
14 Vanderventer Ave.
Port Washington, N. Y.



by **SUSAN HENRIKSEN**

Assistant Editor

XM 55-2330



Hi girls,

This month's YL QSL card winner is Miss Ginette Saucier, XM55-2330, of Quebec, Canada. Her prize is a beautifully engraved pendant with her call letters on it. We've received so many requests for this pendant, if you would like one just send in \$3.00 and your call letters or the name you want engraved on it to me % S9 and I will have them made for you.

Recently Mr. and Mrs. Jim Darrall, KKB-3161, of Lynn, Mass. celebrated their 30th

wedding anniversary. They are the parents of twin daughters, Barbara Darrall Day and Betty Jane Darrall. They are all ardent CB club members of the Lynn Shore CB Radio Club and enjoy card swapping. Congratulations folks.

Barbara Anne and George John Masciarelli, Sr., KBC2792, of Clinton, Mass. recently announced a new addition to the family. His name is George John. He was born in the Leominster Hospital and weighed 9 lbs. 8 ozs. We wish you lots of luck.

We received a letter from Miss Hope Hayes, KLK4326, of Bowling Green, Kentucky. Hope has been a CB'er for almost three years now and has been reading S9 for almost that long. She is the Secretary-Treasurer of the Bowling Green-Warren County CB Radio Club, Inc. One of her hobbies is writing little poems. Below is an example of her work, I thought you might enjoy reading it.

QUEEN OF THE BAND

There's just one thing I'd like to be
The reasons why you soon will see
You've heard of the King throughout the land
The one who rules the entire band
The man with the biggest set and greatest
range

The one you know will never change
His antenna is the highest of them all
His signal strength will never fall
His modulation is the greatest yet
His name and call you'll never forget
His reign I would never try to take
His power I'd never want to break
But by his side I'd like to stand
And be known as QUEEN OF THE BAND.

Till next month girls, keep sending in your letters, I enjoy hearing from you.

S9

SCHTUCK ON SCHTICKERS

We don't know when the first "CB Schticker" was schtuck to the first QSL card, wall, or window—that seems to be lost in the halls of history. We do know that much of the mail received here is adorned with a Schticker.

"What dat?" They're hard to describe. You might call them "stickers," and that would be true; but they're even more than that. They are a combination of "serious"/useful and zany (some defying description) slogans, mottos, warnings, etc. printed up with a gummed backing. They were conceived strictly to appeal to the unique needs and senses of humor of the CB operator, they would mean little to even someone as far removed from the scene as Ham radio. A sheet of Schtickers contains 30 "messages," 27 different with repeats of the 3 most popular ones.

We got ahold of the people who are distributing these things and prevailed upon them to let us run some of them in S9 so that our readers can join in the fun. All it takes is a pair of scissors and a dab of glue.

If you run out of these and still feel an insatiable need for more, you can get them from S. Nussbaum, 1440 50th Street, Brooklyn, N. Y. 11219. A sheet costs 50¢, or 3 for a buck. You have your choice of red and white or black and white.

We didn't run our favorite Schticker here. It shows a rather raunchy sneaker together with the message "Help stamp out Tom Kneitel."

Keep your
cotton pickin' hands
off the goodies!

ACHTUNG!

Das CB-machinen is nicht fer
gewerken by das dummkopfen.

DANGER
HIGH VOLTAGE

WHO IS ?

KB10681



CALL LETTERS



Please engage brain
before pushing
mike button

Support CB in
Bosnia & Hercegovina



FEDERAL COMMUNICATIONS COMMISSION



OFFICIAL REJECT



DANGER
5,000 milliwatts



Danger
Radio Activity

TVI complaints
answered
at rear door only

OFFICIAL

CB HORIZONS

Former Reader

NEW! H.E.L.P.

FOR SALESMEN, HOUSEWIVES,
VACATIONERS, MOTORISTS

■ EMERGENCY ■ CONVENIENCE

2-Way Radio
Communication ...



5 3/4" x 4 3/8" x 1 1/2" - FITS IN GLOVE COMPARTMENT

CITI-FONE II is designed for use with your car radio and modification or dismantling of the radio is not required. The standard car antenna (with matching accessory) can be used.

\$49⁹⁵
Complete
with crystals
for one channel

SOLID STATE
9 transistors—2 diodes
5 watts input — 100%
modulation. Operates
directly from cars' 12
volt system.

TO BE USED
IN ACCORDANCE WITH PART 95 F.C.C. RULES AND REGULATIONS

Mail Today for Complete Information!



Please send further information on
"Citi-Fone II".

NAME _____
ADDRESS _____
CITY _____
STATE _____ ZONE _____

THE IDEAL

way to utilize your existing receiver for entertainment or for two-way radio communications with superior performance at a cost far below conventional units.

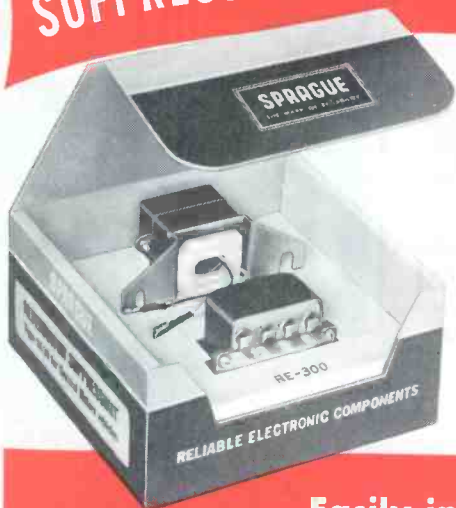
ANOTHER FIRST for



21470 Coolidge
Oak Park, Michigan 48237

MULTI-ELMAC COMPANY

SUPPRESS RFI IN YOUR MOBILE RADIO GEAR!



**SPRAGUE
SUPPRESSIKITS
FOR VEHICLES WITH
ALTERNATOR SYSTEMS**

Easily installed on cars or light trucks with citizens' band, amateur, industrial, or public service mobile radio equipment

★ Four different Suppressikits to choose from—Type SK-10 for Chrysler Corp. cars and trucks, Type SK-20 for Ford Motor Co. vehicles with FoMoCo alternators, Type SK-21 for Ford equipment with Autolite alternators, and Type SK-30 for General Motors Corp. vehicles.

★ Designed to fit most newer vehicles through the 1966 model year. (for older vehicles, see the SK-1 Suppressikit, below.)

★ Well-engineered L-C Networks and/or heavy-duty Thru-pass Capacitors handle the hash and eliminate the siren-like whine caused by the alternator output.

★ Extremely easy to install—no cutting, no soldering, no wiring harnesses. All components are neatly marked and packaged, and come complete with comprehensive step-by-step installation instructions.

★ Provide really *effective* interference suppression through 400 mc, at moderate cost.

★ Will stand up under continuous operation in hot engine compartments.

★ Permit faster, more readable, less tiring communication at greater ranges.

TYPE SK-1 SUPPRESSIKIT FOR VEHICLES WITH D-C GENERATORS



Designed for simple but effective installation. The generator capacitor is built for continuous heavy duty 257°F (125°C) operation. A full 60 ampere current rating plus the high rated operating temperature provide an extra factor of safety against expensive generator burnouts, unlike many suppression assemblies containing general-purpose capacitors. Effectively suppresses RFI through 400 mc. Includes easy-to-follow installation instructions.



GET YOUR SUPPRESSIKIT FROM A SPRAGUE DISTRIBUTOR TODAY!

BB-511042

MONTHLY REPORT— PROJECT S9'er

Project S9'er is a program of awards in recognition for public service duties performed by individual CB'ers and CB Clubs. Clubs and persons wishing to participate should submit a detailed report giving the complete details of specific emergency commission services performed. Club entries must be signed by the club president. Individual entries must be signed by the submitter and co-signed by at least one other licensed operator. All entries will be considered, and outstanding ones will receive a special certificate. Every 2 months we will review the certificate winners and issue a plaque to the one which in the opinion of our judges shows the best CB public service. Once each year we will award a trophy to one of the plaque winners. There is no limitation on the number of entries that may be submitted, as each entry will receive a separate certificate and will be considered for plaques and the trophy.

Name and callsign of each certificate recipient will be announced in S9. Plaque winners will be announced with a resume of their winning deed. Address all reports to: Susan Henriksen, Project S9'er, S9 Magazine, 14 Vanderverter Ave., Pt. Washington, N. Y.

This month's Certificate winners are:

Mrs. L. Potter, KNN5112, Bellevue, Michigan
James Poore, KOM0436, Chattanooga, Tenn.
Bob Woellert, KPH5490, Evansdale, Iowa
Jack Luloff, KPH0241, Evansdale, Iowa
R. Innes, KNPI 132, Northville, New York
Walter Prescott, Jr., KEE0318, Fishkill, New York
Leon Davis, KMD4873, Beacon, New York

For the past two months we have been receiving detailed reports from CB'ers who have helped or aided single citizens or the public in some way. These reports have been given careful consideration and those worthy were given a certificate. As we said when we started Project S9'er, at the end of two months all the certificate winners would be reviewed and one would be chosen to receive a metal plaque inscribed with his name. The first plaque to be given out will be sent to Mr. Charles Smith, Jr. of Collingswood, New Jersey. On May 6, Mr. Smith was driving to Atlantic City on the Black Horse Pike when he had noticed an empty station wagon which had apparently gone out of control and hit a concrete abutment. He slowed down to look, and not seeing anyone around the scene of the accident he kept on driving. While passing he looked into the rear view mirror and saw the rear lights of the station wagon still on. This aroused his curiosity thinking that the police would not leave the car until a tow truck came. So he turned around and drove back to the wrecked car. Looking into the car he noticed a man, very badly hurt, lying on the front seat apparently in shock. Mr. Smith returned to his own car and immediately called for help on his CB rig (Channel 9). The Atlantic City REACT Team came back and sent out his emergency call to the proper authorities who arrived in record time.

We feel Mr. Smith has justly deserved recognition for his deed in saving a man's life, and his plaque has been proudly awarded.

S9

S9—GUARANTEED Largest CB Circulation!

GET ACTION WITH PRECISION MADE, POPULAR PRICED CB UNITS! **CITI-FONE**



FULL 23 CHANNEL SS • Delta Tuning • AC/DC • Triple Tuned RF • Illuminated Meter and Channel Selector • "Dual" Function Panel Meter • Compact 8" x 11" x 4 1/4" • "Noise Immune" Squelch • Double Tuned IF's

\$169.50
Ready to Operate



8 CHANNEL OPERATION • AC/DC • Electronic Switching • Illuminated "S" Meter • 2-Stage Preamp • Transistorized "Noise Immune" Squelch • Delayed AVC • Complete with Crystals for 1 Channel

\$99.95
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Citi-Fone SS Citi-Fone 99

Name

Address

City Zone State

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PACE

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NEW
leader
in
all
solid
state
design
presents
the
most
complete
line of
high
quality
all silicon
transistor
Citizen
Band
2-way
radios



2 watt hand held
PACE MATE — \$119




6-Channel mobile
PACE I — \$129



12-Channel mobile
PACE II — \$169



12-Channel mobile
with S-meter
PACE II-S — \$179



23-Channel complete
PLUS-23 — \$199



Prestige
base or mobile
PACE 5000 — \$250



Prestige portable
PACE VPH — \$384

Write for literature and
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Please do a good deed for some lonesome GI's in Vietnam and send a QSL card or letter to all of the following CB'ers who are fighting for your right to be free:

Sent in by KLD2801's XYL:
S/Sgt. Donald L. Hall, KLD2801
AF-19382143
35th OMS Box 1509 DR-17
APO San Francisco 96337

Sent in by KCC2969:
Sp/4 Ronald G. Ball, KNM6283
RA-15689173
HQ-USASC Cam Ranh Bay
APO San Francisco 96240

Sent in by KMX3947:
PFC Glen A. Grant, KMX2629
US-56396753
"C" Co. 1st Bn. 18th Inf.
APO San Francisco 96345



Here's a photo of Sgt. Ed Hoover, KMX2394, now in Vietnam. Ed says that he gets a laugh when he hears someone gripe about CB'ers being poor swappers because he ran his name in S9's swap column and received no less than 18,000 cards in a 2 month period! He received as many as 148 packs of cards on a single day, and he says to tell readers that he's a little behind in replying to all. Guess there are a few other things to do over there than answer cards. Anyway, Ed really digs receiving the cards (as do all of our GI's over there) as it brings home a little closer. If you haven't yet sent Ed your card, his 10-20 is: Sgt. Ed R. Hoover, COB, 716th MPBN, APO San Francisco 96243.

We invite readers to submit the names and addresses of other CB servicemen in Vietnam (or anywhere else overseas) for publication in S9. Special Vietnam subscription rates are now in effect.

PACE APPRECIATION SWEEPSTAKES

1st PRIZE PACE I
TRANSCIVER



2nd PRIZE
PACE 5803
POWER SUPPLY



12 ADDITIONAL
PRIZES ONE YEAR
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TO S-9



All you have to do to enter the Appreciation Sweepstakes is detach and fill out (please print) the entry blank below. Fill out each blank—write “none” where no answer applies. Then mail it to PACE COMMUNICATIONS CORP., P. O. Box “P”, HARBOR CITY, CALIFORNIA 90710.

RULES: PACE Communications has reserved the described gifts for lucky winners, selected at random. Employees of PACE Communications Corp., or persons less than 21 years of age shall not be eligible. Entries must be received by September 15th, 1966. This sweepstake is void outside the U. S., and wherever prohibited, taxed, or restricted by law or regulation. Any taxes applicable to a prize are the sole responsibility of the winner.

NAME _____ CB CALL _____ MY CB OR SPORTS CLUB IS _____

ADDRESS _____ ADDRESS _____

CITY _____ STATE _____ CITY _____ STATE _____

NEAREST CB RETAILER _____ MY PRESENT CB SET IS _____

ADDRESS _____ MY NEXT SET PURCHASE WILL BE IN _____ MONTHS

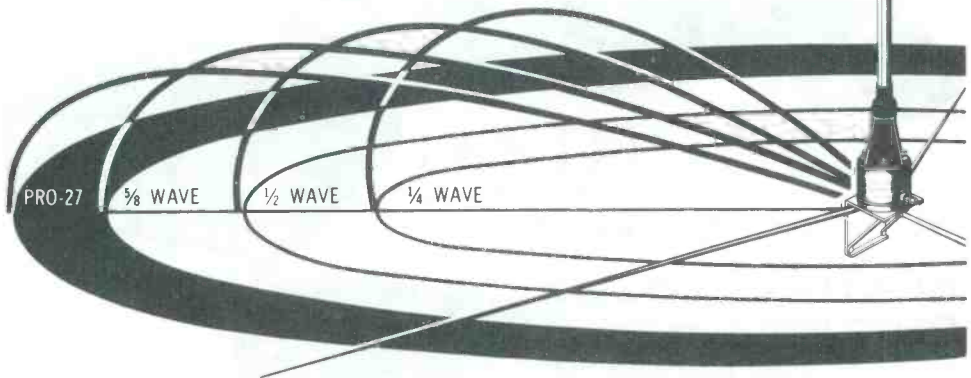
CITY _____ STATE _____ MY FIRST CHOICE OF SETS IS _____

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CARD

SWAPPERS

UNLIMITED

Swappers Awards are given to those readers who have sufficiently proven that they have reached certain specified levels of achievement in QSL card swapping. There are 19 different and distinctive Swappers Awards, and if you would like a complete set of rules, address your request together with a stamped, self-addressed envelope, to: Swappers Awards, S9 Magazine, 14 Vanderverter Ave., Port Washington, N. Y. 11050. Here are the winners of the black, red and gold certificates for the past month.

- SACA 323 Ed Madej, WPE1GEM, Indian Orchard, Mass.
324 T. Johnson, KMM0296, Nashville, Tenn.
325 J. Walker, KLH3541, Biloxi, Miss.
326 V. DeMeis, KOG0204, Philadelphia, Pa.
- PX-25 614 L. Craze, KNN6650, Mansfield, Ohio
615 J. Kuc, WPE1GFM, Indian Orchard, Mass.
616 H. Helms, KMM7648, Ft. Mill, S. C.
617 B. Moore, KNE0681, Basin, Wyo.
618 M. Hall, T-N/DX068/G, Yorkshire, England
619 A. Benoit, XM22662, Alberta, Canada
- PX-50 528 L. Craze, KNN6650, Mansfield, Ohio
529 Ed Madej, WPE1GEM, Indian Orchard, Mass.
530 H. Helms, KMM7648, Ft. Mill, S. C.
531 A. Koslofsky, KOD0829, Brooklyn, New York
532 B. Moore, KNE0681, Basin, Wyo.
533 M. Hall, T-N/DX068/G, Yorkshire, England
534 W. Breident, Jr., KPH3956, St. Louis, Mo.
535 A. Benoit, XM22662, Alberta, Canada
- PX-75 415 Ed Madej, WPE1GEM, Indian Orchard, Mass.
416 J. Guerny, KNJ0361, Salina, Kansas
417 B. Moore, KNE0681, Basin, Wyo.
418 M. Hall, T-N/DX068/G, Yorkshire, England
419 W. Breident, Jr., KPH3956, St. Louis, Mo.
420 A. Benoit, XM22662, Alberta, Canada
- PX-100 381 B. Moore, KNE0681, Basin, Wyo.
382 R. Knautz, KNJ2415, Chicago, Illinois
383 M. Hall, T-N/DX068/G, Yorkshire, England
384 Big Bad Bob, KOD3563, Rahway, N.J.
385 L. Downey, KLN9916, New Miami, Ohio
- PX-125 290 D. Sigo, KNK0460, Goodland, Indiana
291 B. Moore, KNE0681, Basin, Wyoming
292 R. Knautz, KNJ2415, Chicago, Illinois
293 R. Grenon, KBC8333, Pawtucket, R. I.
294 M. Hall, T-N/DX068/G, Yorkshire, England
295 D. Feltz, KNI0326, Keota, Iowa
- PX-150 234 B. Light, KMA2652, Norwalk, Conn.
235 R. Kiplinger, KPM0297, Charlotte, Michigan
236 B. Moore, KNE0681, Basin, Wyo.
- PX-175 199 B. Moore, KNE0681, Basin, Wyoming
200 N. Powell, KMD0346, E. Orange, N.J.
201 G. Davis, 18Q0077, Chicago, Ill.
202 D. Stout, KHC4453, Chatham, Ill.
- PX-200 172 B. Moore, KNE0681, Basin, Wyoming
173 G. Davis, 18Q0077, Chicago, Ill.
- PX-225 139 B. Howell, Jr., KDB0371, Aiken, S.C.
140 B. Moore, KNE0681, Basin, Wyo.
141 G. Davis, 18Q0077, Chicago, Illinois
142 J. Walker, KLH3541, Biloxi, Miss.
- PX-250 194 B. Moore, KNE0681, Basin, Wyo.
195 G. Radenheimer, KHH1363, Middletown, Ohio
196 G. Davis, 18Q0077, Chicago, Illinois
- PX-300 116 B. Moore, KNE0681, Basin, Wyo.
- PX-325 107 D. Clogston, KKA4210, Starks, Maine
108 E. Fell, KNA2993, Napa, Calif.
109 R. Thatcher, KBG7687, Hudson, N.Y.
110 E. Becker, KCG0706, Alexandria, Va.
- PX-350 108 B. Buffington, KID8628, Craryville, N.Y.
109 E. Fell, KNA2993, Napa, Calif.
- PX-500 125 V. Gould, KLP7641, Binghamton, N.Y.
- PX-525 102 V. Gould, KLP7641, Binghamton, N.Y.
- PX-550 103 V. Gould, KLP7641, Binghamton, N.Y.
- PX-575 102 V. Gould, KLP7641, Binghamton, N.Y.
- PX-725 101 W. Wise, KFA4659, Anaheim, Calif.
- PX-750 102 W. Wise, KFA4659, Anaheim, Calif.
- PX-775 101 W. Wise, KFA4659, Anaheim, Calif.
- PX-800 101 W. Wise, KFA4659, Anaheim, Calif.
- PX-825 101 W. Wise, KFA4659, Anaheim, Calif.
- PX-850 101 W. Wise, KFA4659, Anaheim, Calif.
- MSA 234 R. Kiplinger, KPM0297, Charlotte, Mich.
- SSC-2 184 B. Moore, KNE0681, Basin, Wyoming
185 N. Powell, KMD0346, E. Orange, N.J.
186 G. Davis, 18Q0077, Chicago, Ill.
187 D. Stout, KHC4453, Chatham, Ill.
- SSC-5 124 D. Clogston, KKA4210, Starks, Maine
- SSC-9 112 E. Becker, KCG0706, Alexandria, Va.
- SSC-20 104 W. Wise, KFA4659, Anaheim, Calif.
- SSC-36 101 B. Ross, KCG1087, Oxon Hill, Md.
- SSC-37 101 B. Ross, KCG1087, Oxon Hill, Md.
- SSC-38 101 B. Ross, KCG1087, Oxon Hill, Md.

If you would like to be listed as a QSL card swapper in our monthly listing, you must do the following: send us a separate card for each month you would like to be listed (you may send several month's worth of cards at the same time), and enclose 10¢ in cash (no stamps, checks, or money orders) for each month you are to be listed. Try not to write on your cards and don't Scotch Tape your dime to the card. Address the material to: Card Swappers Unlimited, 14 Vanderverter Avenue, Port Washington, N. Y. 11050. Deadline for listing in the November issue is September 12th. Any cards received after this date will be listed in the following issue.

Here are this month's swappers:

- 1W6216 Errol Engraving, 36 Hampden St., Westfield, Mass.
 2Q0152 Karl Weiss, 245 Ashmore Ave., Trenton, N.J.
 2Q6980 Red Morgan, 144 Wilson Ave., Kearny, N.J.
 4B5372 Jim Cross, 755 South Potomac St., Hagerstown, Md.
 5Q2178 Elwyn Beam, Vale, North Carolina
 6Q0054 Glenn Poore, P.O. Box 6101, Chattanooga, Tenn.
 6Q0946 Dave Jones, P.O. Box 1335, Maryville, Tenn.
 8Q0857 Bill Turner, Box 398, Belzoni, Miss.
 11Q1313 George Strainline, 1171 W. Miracle Mile, Tucson, Ariz.
 17Q3785 George Lewis, Route 2, Salina, Kansas
 19A8145 Gene Hecht, 26 Sheridan, Pontiac, Mich.
 19Q9470 Adrian Fallert, 121 N. "C" St., Hamilton, Ohio
 19Q9941 Martin Ripper, 7617 Cavell, Garden City, Mich.
 20Q1360 Ivan Smith, 419 Water St., Danville, Pa.
 KAA4564 Geo. Thayer, A303 Iroquois Dr., Salamanca, N.Y.
 KAG2020 Ardis Johnson, P.O. Box 169, Wingdale, N.Y.
 KAK0958 Jerome Hines, 317 Hart St., Brooklyn, N.Y.
 KBA8387 John Hornyak, 1192 Norman St., Bridgeport, Conn.
 KBA8595 Lee Aspinall, 20 Forest Ave., North Haven, Conn.
 KBB0005 Bob Anderson, 14 Juniper Dr., Ashway, R.I.
 KBB0471 Fran Smithwick, Box 62 - Rt. 1, Ellington, Conn.
 KBB0602 Richard Henderson, 12 Arch Place, Meriden, Conn.
 KBC0264 Everett Decker, Box 411, Westfield, Mass.
 KBC6510 Ralph Bryant, 716 Riverside Dr., Fairfield, Conn.
 KBC7679 Robert Hughenin, U. of Pitts. Dorm., Titusville, Pa.
 KBC8093 Dennis Cidale, 17 Water St., Stonington, Conn.
 KBC8393 Ray Green, 26 Foster St., Pawtucket, R.I.
 KBE0153 Bob Hedgepeth, 8 Morning Star Dr., Seymour, Conn.
 KBG8079 Alvin Allen, 610 Prospect Ave., Spring Lake Hts., N.J.
 KBI0854 George Raybin, 1367 Sheridan Ave., Bronx, N.Y.
 KB12251 Mona French, 19 Essex Lane, Old Bridge, N.J.
 KB14141 Danny Seifert, 163 So. Main St., Phillipsburg, N.J.
 KB16373 Charles Bennett, 89 Valley Rd., Haworth, N.J.
 KB16480 Art Scheid, 2 Essex Place, Hartsdale, N.Y.
 KB18077 John Krejc, 60 Division Ave., Garfield, N.J.
 KB18510 Robert Gannon, 322 First St., Newburgh, N.Y.
 KBJ0753 Richie DuBois, Box 135 - Rd. 2, Walkkill, N.Y.
 KCA0440 Paul Slegle, 8 Rosewood Dr., Madison, N.J.
 KCC2969 Bob Stouch, Box 120, R.D. 1, East Stroudsburg, Pa.
 KCD11906 Howard Taylor, South Dupont Rd., Penns Grove, N.J.
 KCD1967 George Williamson, 804 Parsonage Rd., Seabrook, N.J.
 KCD5165 John Shronk, Box M, Mont Clare, Pa.
 KCD5883 George Fredericks, 701 Sunderland Rd., Teaneck, N.J.
 KCD6125 Neil O'Connell, 22 Cassatt Ave., Berwyn, Penna.
 KCE0012 Herb Morgan, 20 Craig Place, Pennsville, N.J.
 KCF0011 Ed Kacicek, 134 Polk Dr., Manassas Park, Va.
 KCF2446 Robert Crigger, 411 S. Mount St., Baltimore, Md.
 KCG0346 Bailey Curtis, 1028 Harrison Ave., Elkins, W. Va.
 KCG1087 Barney Ross, 425 Garden St., Washington, D.C.
 KCG2216 Doris Cross, 755 South Potomac St., Hagerstown, Md.
 KCG3236 Bob Gallery, 5013 Westport Rd., Chevy Chase, Md.
 KCG3642 Edward Luttrells, Rt. 2 - Box 218A, Winchester, Va.
 KCG3689 Ed. Ross, 1967th COMM. SQDN., APO San Francisco 96267
 KCG4106 Dave Royer, Rt. 1 - Box 133, Finksburg, Md.
 KC12842 Clarence Moore, Rt. #4 - Box 34, Thomasville, N.C.
 KC15174 Tommy Rogers, Box 158, Indian Trail, N.C.
 KCJ0690 James Deavers, Box 214, Bladenboro, N.C.
 KCJ1216 James Gough, Rt. 1 - Box 4, Crozet, Va.
 KCJ3880 Lee Willick, 3709 Hester Circle, Raleigh, N.C.
 KCJ4695 Gwyn Deavers, Box 214, Bladenboro, N.C.
 KCJ5002 J. K. Kirkland, Route 7, Raleigh, N.C.
 KCJ5092 Doug Paynter, 1001 East Jefferson St., Charlottesville, Va.
 KCJ6413 Gary Proco, Route 4 - Box 1192, Christiansburg, Va.
 KCJ7377 Allon Clarke, 1009 Hamilton Ave., Clifton Forge, Va.
 KCJ9615 James Surratt, Rt. 2 - Box 86, Denton, N.C.
 KDA0334 Truman Jones, Rt. 8 - Box 218, Roanoke, Va.
 KDA0389 Matt Moore, 6000 Great Bridge Rd., Chesapeake, Va.
 KDB9372 Claude Hooper, R.F.D. 3 - Box 130, Sylva, N.C.
 KDC0843 Raymond Sheely, Box 95, Petersburg, Ohio
 KDC1358 W.L. McKeever, 435 Lynn Ave., Lakeside, Ohio
 KDC2091 Charlie Kreuger, Rt. 2, Marion, Ohio
 KDD5222 William Holmes, Box 92, Glenwood, Ala.
 KDE4606 Hiram Jackson, Rt. 1 - Box 80D, Bloomingdale, Ga.
 KD13426 Dozier Hendry, 723 South Brevard Ave., Tampa, Fla.
 KEE2743 Harry Hoffpawier, 724 Coolidge Rd., Channelview, Texas
 KEJ1361 Jeff Collier, P.O. Box 3044, North Hollywood, Calif.
 KFA6387 George Prock, 4814 W. 131st St., Hawthorne, Calif.
 KFD1525 Chuck Watrous, 421 W. 12th St., Tracy, Calif.
 KFD4351 Steve Kruft, 1755 - 29th Ave., San Francisco, Calif.
 KFD5345 Cecil Long, P.O. Box 367, Ivanhoe, Calif.
 KFI1219 Jack Sudduth, 8103 16th S.W., Seattle, Wash.
 KFJ0479 Agnes Sudduth, 8103 16th S.W., Seattle, Wash.
 KGC1864 Bob Becker, 2892 W. 55th Ave., Denver, Colo.
 KGE0071 Jack Wera, 216 Olmstead, Winona, Minn.
 KG14987 Arlene Doggett, 8060 Dema Dr., Des Moines, Iowa
 KG16100 Robert Schmink, 357 No. Waco, Wichita, Kans.
 KG16245 The QSL Swapper, 5439 Dober Lane, St. Louis, Mo.
 KG17912 Donn Stoneberg, P.O. Box 11221, Omaha, Nebr.
 KHA0059 Joseph Brav, R.R. 4 - Box 138, Cedar Lake, Ind.
 KHA5150 Virg Mansfield, 600 West 7th, Muncie, Ind.
 KHA8376 Gordon Velpel, 801 S. Franklin St., Garrett, Ind.
 KHA9795 Willis Chandler, 110 W. Kansas St., Indianapolis, Ind.
 KHB1210 Larry Rost, R.R. 2, Muscatine, Iowa
 KHB2113 Sherwood Riskey, R.R. 4-Highway 15 W., Mt. Carmel, Ill.
 KHB3556 John Ernstberger, 3516 S. Hermitage Ave., Chicago, Ill.
 KHC0280 Dick Dill, 505 W. Cherry, McLeansboro, Ill.
 KHC4185 Lou Chappell, 3644 E. Minnie St., Decatur, Ill.
 KHC4453 Dick Stout, Maple Spring Farm, Chatham, Ill.
 KHC5348 Barry Fehlberg, 1801 Summit Ave., Racine, Wisc.
 KHC6483 Jack Wolsieffer, 5 Park Ave., Lafayette, Ind.
 KHD5299 Buster Rogers, 1602 Athens St., Crawfordsville, Ind.
 KHD6388 True Hofacker, Box 271, R.R. 2, Richmond, Ind.
 KHD6834 B.J. Hubbert, 4603 Stanton Ave., Downers Grove, Ill.
 KHD8971 John Northridge, Box 9, Cedarville, Ill.
 KHG3085 Edwin Chisholm, 1825 Avon St., Saginaw, Mich.
 KHG4945 C.M. Cooley, 1006 Hooen St., Hamilton, Ohio
 KHG9031 Jack Pye, 1014 S. Campbell Rd., Royal Oak, Mich.
 KHH1363 Geo. Radenheimer, 3121 Andrew St., Middletown, Ohio
 KHH2658 Doc Earley, West Union, West Virginia
 KHH3585 Mae Breeze, 5660 Hipp, Dearborn Hts., Mich.
 KH14581 John Green, Box 242, Whitehouse, Ohio
 KH15457 Geo. Barker, 343 N. 27th St., Bartle Creek, Mich.
 KH17868 Tim Schafer, 1580 So. Clinton St., Defiance, Ohio
 KH19979 Gene Taylor, 121 N. Adolph Ave., Akron, Ohio
 KHJ0644 Rudy Tobola, 15448 Wormer Ave., Redford Twp., Mich.
 KHJ1206 Marty Snyder, 1516 Lockwood Rd., Barberton, Ohio
 KHJ2246 Gus Cortis, RD. 2, Bantam Ridge, Wintersville, Ohio
 KHJ3477 Donald Belitz, 13474 Enid Blvd., Lake Fenton, Mich.
 KHJ5383 Alan Eckert, Route One, Defiance, Ohio
 KHJ7841 Grace Beaudry, Rt. 1, Rose City, Mich.
 KHJ7895 Bob Best, 12067 Greenlawn, Detroit, Mich.
 KHJ8472 Scrubboard, 1164 Lindsay Ave., Akron, Ohio
 KHJ9508 Jim Fosnough, HHC 3d BDE, APO N.Y. 09162
 KIA0468 Clarence Kernstock, 1200 Filmore Place, Essexville, Mich.
 KIC3500 Ruth Bopp, 350 W. Fifth St., Lewistown, Pa.
 KIC3501 Phil Rodon, 16 Garfield Ave., Batavia, N.Y.
 KID0007 Fred Martz, Davis-Lane Speedway, Hustontown, Pa.
 KID0313 Stan Jesionowski, 31 Summer St., Fredonia, N.Y.
 KID3449 Nicholas Shyshuk, P.O. Box 744, Scranton, Penna.
 KID5293 George Gould, P.O. Box 42, Hudson Falls, N.Y.
 KID5389 James Gross, 1410 Burley Ave., Tyrone, Pa.
 KID5802 R.V. Pollard, 109 Pennsylvania Ave., Johnstown, N.Y.
 KID6418 Jim Schall, 322 1/2 Main St., Leechburg, Pa.
 KID8232 Roy McGregor, R.D. 2, Central Square, N.Y.
 KID8628 Dean Buffington, Craryville R.F.D., N.Y.
 KID9001 Dody Townsend, Box 18, Solvsville, N.Y.
 KID9968 Edwin Kamerer, Box 500, Selingsgrove, Penna.
 KIE0628 Al Gulley, R.D. 3 - Box 392, Coraopolis, Pa.
 KJB0278 Jack Rogers, Box 2017, Kodiak, Alaska
 KJC0223 J.C. McCalla, 273-G Dyea Ave., Ft. Richardson, Alaska
 KJH0032 Jere Caricco, 2301 Norfolk St., Hopewell, Va.
 KJH0080 Robert Grubbs, Route 3, Winston-Salem, N.C.
 KJI1072 Len Siedinski, 18 Ames Ave., Tonawanda, N.Y.
 KJI2342 Larry Fenton, Box 174, Penn Yan, N.Y.
 KKA0488 Cyril Wilson, 6 Collins Terrace, Lynn, Mass.
 KKA0880 Don Benoit, Lambs Grove, Spencer, Mass.
 KKA2775 Manny Santos, 497 Pleasant St., Pawtucket, R.I.
 KKA4210 Dick Clogston, Stars, Maine
 KKA5174 George Brown, 101 Truman St., New London, Conn.
 KKA5305 Chase's Engraving, P.O. Box 237, Versailles, Conn.
 KKA5683 Bob Holmes, Mountain View Farm, King Rd., Monson, Mass.
 KKA5858 Clayton Pearce, 192 Osborne St., Danbury, Conn.
 KKA7064 Irving Norman, 9 Greenfield St., Pawtucket, R.I. 02861
 KKA7402 Big John, Box 368, Weir Beach, N.H. 03246
 KKA7847 Rich Vermette, 288 Elm St., Holyoke, Mass.
 KKA8101 John Moriarty, 86 Beacon St., Florence, Mass.
 KKA8428 Linda Fritzges, 12 James St., North Haven, Conn.
 KKA8441 Leonard Prue, 11 Forthill Rd., Poquonnock Bridge, Conn.
 KKA8891 Ralph Lovering, 254 Prospect St., Northampton, Mass.
 KKA9940 Bob Vogel, 371 Columbia Rd., Dorchester, Mass.
 KKB0087 James Lacey, 46 Oread St., Worcester, Mass.
 KKB0355 Bob Cutter, P.O. Box 104, West Somerville, Mass.
 KKB1198 The Shafer's, 3 Cherry St., Windsor, Vt.
 KKB1587 Bob Lapointe, 60 Prospect St., New Britain, Conn.

KKB1678 Peter Palmer, 296 Pride St., Westbrook, Maine
 KKB1757 Tommy Miller, 109 Fallon Dr., Hamden, Conn.
 KKB2581 Dan Patterson, 29 Winslow St., Portland, Maine
 KKB3161 Jim Darrall, 47 Howard St., Lynn, Mass.
 KKB3548 John Monaco, 118 Ledgcrest Ave., New Britain, Conn.
 KKB3757 Harrison Cunningham, 71 Water St., Hallowell, Maine
 KKB4031 Alan McCathorn, 50 Crown St., Bridgeport, Conn.
 KKD0349 Jack Golden, 5025 Broadway, New York City, N.Y.
 KKD0491 Mike Kaplan, 37 Fairview Terrace, Maplewood, N.J.
 KKD0701 Dave Bertbert, P.O. Box 372, Levittown, N.Y.
 KKD1746 Ivan Samuels, 179 Glenview Rd., South Orange, N.J.
 KKD2292 Henry Meyer, 50 Knickerbocker Rd., Plainville, N.Y.
 KKD3924 Carlo Senatore, 396 Chestnut St., Newark, N.J.
 KKD4144 Clair Sigafos, R.D. 2 - Box 259, Milford, N.J.
 KKD5471 Clifton McGuire, 814 Southard St., Trenton, N.J.
 KKD6425 Jim Marra, 160 E. Lakeview Ave., White Plains, N.Y.
 KKD9288 Don Watson, 15 Knevels Ave., Beacon, N.Y.
 KKD9414 The Fonda's, 30 Second Ave., Rensselaer, N.Y.
 KKD9511 Mitch Zimmer, 1213 East 83rd St., Brooklyn, N.Y.
 KKE0366 Al Martinez, 15 Lindy Pl., Old Tappan, N.J.
 KKE0542 John Hendrick, Box 74 - Stony Hollow Rd., Greenlawn, N.Y.
 KKG2224 Walt Roberts, 111 57th St., Brant Beach, N.J.
 KKG3074 Harold Peer, 617 Halliard Ave., Beachwood, N.J.
 KKG4032 Sophia Mitch, 309 South St. Cloud St., Allentown, Penna.
 KKG4482 Dave Petrucci, 316 W. Van Buren Ave., New Castle, Del.
 KKG4980 Chris Terrasi, 626 Ogontz St., York, Pa.
 KKG5549 Ernest Kenter, 4607 Olivehurst Ave., Olivehurst, Calif.
 KKI0042 Edward Salevan, 816 New Street, Milford, Del.
 KKI2915 George Bowen, 831 W. Matthews Ave., Baltimore, Md.
 KKI3946 Don Sherman, R.D. 1 - Box 82, Bel Air, Md.
 KKI4081 Edward Smoor, 13 S. Smallwood St., Baltimore, Md.
 KKI4574 William Haines, P.O. Box 333, Riverdale, Md.
 KKI4718 Ken Queen, 113 1/2 Summit Ct., Clarksburg, W. Va.
 KKK0172 James Cole, P.O. Box 775, Hamlet, N.C.
 KKK0453 Bob Maxey, Route 2, Cumberland, Va.
 KKK0471 J.L. Kirkland, Route 7, Raleigh, N.C.
 KKK1145 Jim Brizendine, 2016 Wayne St. N.E., Roanoke, Va.
 KKK1752 Dave Landley, Rt. 8 - Box 697, Greensboro, N.C.
 KKK2318 James Plunkett, 2903 Ajax Ave., N.W., Roanoke, Va.
 KKK4240 Harry Fortner, 316 Oakland Ave., Statesville, N.C.
 KKK4410 Smylie Grantham, P.O. Box 364, Raeford, N.C.
 KKK5253 James Blythe, Box 354, Conway, N.C.
 KKK6850 Byron Pепitone, P.O. Box 3096, Chula Vista, Calif.
 KKM2052 Linton Slappey, P.O. Box 52, Plains, Ga.
 KKM4156 Fred Monday, 77 Brownwood Ave., Asheville, N.C.
 KKM7376 Donald Wilson, 1529 Bush Blvd., Birmingham, Ala.
 KKM7788 Claude Witt, 814 S. Webb Ave., Crossville, Tenn.
 KKM8296 Archie Hudgins, Rt. 2 Ward Mt. Rd., Shannon, Ga.
 KKM9266 Raymond Bobo, Route 2, Murfreesboro, Tenn.
 KKN2985 Charles Martin, Rt. 6 - Harrison Pl., Cleveland, Tenn.
 KKN3002 Robert Miller, 1430 N. Houston, Athens, Ala.
 KKP1645 Henry McLeod, P.O. Box 126, Perry, Fla.
 KKP4260 Clark Dickinson, Rt. 2 - Box 50, Perry, Fla.
 KKP5236 Bob Peter, 198 Hibiscus St., St. Augustine, Fla.
 KKR2939 E.B. Sanford, 111 King St., Columbus, Miss.
 KKR5223 Charles Keathley, 3005 Loma Dr., Little Rock, Ark.
 KKT3900 Leonard Ferguson, 4217 Nagle, Bryan, Texas
 KKT4093 Sam Asberry, Rt. 3 - Box 982, Humble, Texas
 KKV7967 Tom Richie, 817 Hillside Dr., Sherman, Texas
 KXX1831 Joe Stechney, 555 W. Mahoney Ave., Mesa, Ariz.
 KXX1952 Howard Rebel, P.O. Box 765, Corona, Calif.
 KXX2834 George Strainline, 1171 W. Miracle Mile, Tucson, Ariz.
 KXX4867 Wade Blythe, 14639 Lakeside St., Sylmar, Calif.
 KXX7505 Pete Gabel, 4240 Palmero Dr., Los Angeles, Calif.
 KXX8504 Ken Weiland, 137 South Poinsettia Pl., Los Angeles, Calif.
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 KLA7428 Jack Evans, P.O. Box 108, Ivanhoe, Calif.
 KLD0781 John Taylor, 1402 126 St., Everett, Wash.
 KLD2559 Joe Jingle, Box 395, Whitefish, Mont.
 KLE1482 Doyle Fruit, 800 20th, Eunice, New Mexico
 KLH4994 Jack Doggett, 8060 Dema Dr., Des Moines, Iowa
 KLBH8504 Sanford Kelley, 2707 Endicott, Kansas City, Kans.
 KLI1123 Dick Arthur, 3424 James St., Topeka, Kans.
 KLI1246 Joe Wehr, R. R. 3, Harlan, Iowa
 KLI1365 Glenn Earney, 928 Olympia Dr., Ferguson, Mo.
 KLI1434 Gerald Stalons, 3903 Garfield, Lincoln, Nebr.
 KLJ3281 Cecil Manet, 2207 West 9th St., Muncie, Ind.
 CLJ3382 Earl Gordon, 419 W. Grand Ave., Decatur, Ill.
 KLJ3850 Wayne Gorham, R. R. 3, Lafayette, Ind.
 KLJ3945 William Turner, 1728 Ford Ave., Owensboro, Ky.
 KLJ4024 Loren Snyder, 542 9th Ave. South, Clinton, Iowa
 KLJ4663 Bev Chappell, 3644 E. Minnie St., Decatur, Ill.
 KLJ5345 Arlo Cookson, 1548 North Church St., Decatur, Ill.
 KLJ6057 Bill Hittle, 1601 So. 4th St., Richmond, Ind.
 KLJ7350 Gary Aikens, 9770 Merrion St., Chicago, Ill.
 KLK1015 George Thompson, 13112 Windward Trail, Orland Park, Ill.
 KLK1573 Dave Weil, Sumava Resorts, Indiana
 KLK1623 Ada Gordon, 419 W. Grand Ave., Decatur, Ill.
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 KLK2458 Lincoln Ide, 7842 So. McVicker, Oak Lawn, Ill.
 KLK4317 Pat Cavanaugh, 3620 West Southland Dr., Franklin, Wisc.
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 KLK5969 Lois Jacobson, 9115 Baldwin Dr., Rockford, Ill.
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 KLK9927 George Lucchetti, 6520 N. Hiawatha Ave., Chicago, Ill.
 KLL0297 Bob Hubsch, 179 Westwood Dr., Park Forest, Ill.
 KLL0800 Gil Davis, 2405 Sunset Blvd., Anderson, Ind.
 KLL0863 Clarence Dietrich, 810 Colgrove, Waterloo, Ind.
 KLL1418 Bill Bagley, 2806 So. 4th St., Rockford, Ill.
 KLM1447 Lee Collins, 4814 Sundale, Drayton Plains, Mich.
 KLM3314 Paul Monhart, 2170 W. 63 St., Cleveland, Ohio
 KLM4842 Betty Hazen, 231 No. Mead St., Zanesville, Ohio
 KLM5752 Carl Martin, 130 Clark St., Elyria, Ohio
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 KLN2522 Anthony Gover, Bronston, Ky.
 KLN2610 Joe Tyika, 1410 Maple St., West Bellaire, Ohio
 KLN2907 Bill Tenny, Rt. 4, Cheboygan, Mich.
 KLN3125 John Daugherty, 129 Elmore St., Zanesville, Ohio
 KLN6051 Ray Buell, 3313 Trade Winds Ave., Dayton, Ohio
 KLN6367 Tom Getgood, 426 Mitchell St., Sanford, Mich.
 KLN6945 Al Wardeska, Vincent Star Route, Marietta, Ohio
 KLN7229 Bernard Weber, 820 Silver Lake Rd., Fenton, Mich.
 KLN7344 John Arnold, 8 E. Main St., Trenton, Ohio
 KLN7666 Bob Pomisel, 3304 Rockingham, Kalamazoo, Mich.
 KLN7841 Grace Beaudry, Rt. 1, Rose City, Mich.
 KLN8233 Don Gorda, 1854 Warwick, Lincoln Park, Mich.
 KLN8474 Jerry Teynor, 310 E. Irving St., Bucyrus, Ohio
 KLN9155 Evans Johnson, 115 McKee, Manistee, Mich.
 KLN9260 Tom Maley, 173 Wilson Ave., Niles, Ohio
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 KLO2146 Harold Hicks, 211 East Main St., Trotwood, Ohio
 KLO2529 James Jones, 523 West Main St., Zeeland, Mich.
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 KLP3284 James Phillips, 599 West 8th St., West Wyoming, Pa.
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 KLP8791 Jim Smith, R.D. 3, Fort Plain, N.Y.
 KLP9151 Bob Lance, 10 Fredella Ave., Glens Falls, N.Y.
 KLP9557 George Booth, 971 Sweeney St., No. Tonawanda, N.Y.
 KLP9660 Harold Clark, Ashford Station, Ellicottville, N.Y.
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 KLOQ423 Roy Clinch, 3558 Gifford Rd., Vernon Center, N.Y.
 KLOQ457 Charles Goughnour, 207 Coldren St., Johnstown, Pa.
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 KMA0254 Al Thurston, 16 Eleanor St., Seymour, Conn.
 KMA0434 Paul Malachowski, 6 Shady Lane, Wilbraham, Mass.
 KMA0449 Don Jenner, 96 Proctor St., Waterbury, Conn.
 KMA0517 Earl Holbrook, 29 Maynard St., Attleboro, Mass.
 KMA0722 John Hall, 2 Crescent St., Portland, Me.
 KMA0801 Regis Drakopoulos, 27 Douglas St., Haverhill, Mass.
 KMA0885 Dave Barney, Box 733, Center Rutland, Vermont
 KMA1670 Ken Cooley, 21 Ascutusy St., Windsor, Vermont
 KMA1779 Les Olson, 68 Symonds Ave., Collinsville, Conn.
 KMA2028 Edwin Keller, 10 South St., Plymouth, Mass.
 KMA2465 Tom Vecchitto, 117 So. Vine St., Meriden, Conn.
 KMA2652 Bill Light, 28 Newfield St., Norwalk, Conn.
 KMA2668 Steve Shear, 177 Cherry St., Malden, Mass.
 KMA2766 Chuck Saverse, High Manor Park, Rockville, Conn.
 KMA3375 Mark Connors, 31 New Winchendon Rd., Baldwinville, Mass.
 KMA3491 Chris Marneili, 45 Milton St., New Britain, Conn.
 KMA3505 Perry Green, 27 Moravia Woods Rd., Avon, Conn.
 KMA3521 John Franzen, 102 Mount View Dr., Holden, Mass.
 KMA4245 Henry Tadrzenski, 143 Newell Ave., Bristol, Conn.

KMA4497 Paul Polonsky, 19 Mill St., Beverly, Mass.
 KMA4715 Charles Lynn, 9 Summer St., Skowhegan, Me.
 KMA5863 Dave Hakes, 11 West St., Adams, Mass.
 KMA5991 Ron Rumary, 102 East St., Plainville, Conn.
 KMA6391 Joseph White, 56 Warren St., Everett, Mass.
 KMA6504 Don Lemoine, 118 Miller St., Springfield, Mass.
 KMA6706 Larry Searles, 97 Crescent St., Rutland, Vt.
 KMA7383 Joe Crowley, 66 Andrews Rd., Wollaston, Mass.
 KMA7457 Laurel Blood, 204 Valley View Dr., Meriden, Conn.
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 KMA7755 Milton Hazel, 202 Thunderchief, K.I. Sawyer AFB, Mich.
 KMA8131 Butch Blanchard, Hathaway St., Adams, Mass.
 KMA9261 Carroll Rogers, Box 178, Middletown, Conn.
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 KMD0490 Fred Decter, 339 Leslie St., Newark, N.J.
 KMD0992 Howard Huncke, 518 Mountain Ave., Springfield, N.J.
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 KMD1962 Hank Schurmer, 471 Stratford Rd., So. Hempstead, N.Y.
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 KMD2632 Donald Heide, 2732 Batchelder St., Brooklyn, N.Y.
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 KMD4083 Rick Trevena, 103 Bryson Ave., Staten Island, N.Y.
 KMD4112 Charlie Rosenberg, 8 Abbey Court, Plainville, N.Y.
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 KMK5383 Greg Ferree, 113 Francis Dr., Asheville, N.C.
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 KMM1624 Bob Keast, Camden, Tenn.
 KMM1952 Bennie Taylor, 1209 Ferron Ave., Anniston, Ala.
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 KMM3176 Roberta Thomas, 115 Larchmont, Chattanooga, Tenn.
 KMM5807 Willis Knights, 903 Beech St., Newport, Tenn.
 KMM6140 Arthur Shipley, 1719 Parker Rd., Albany, Ga.
 KMM6842 Bill Ealy, 3915 Tacoma Ave., Red Bank, Tenn.
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 KMT3371 Willy Goodwin, 4301 Nagle, Bryan, Texas
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 KMX3943 Jim Hope, 356 N. Fuller, Los Angeles, Calif.
 KMX5223 Fred Osterman, 621 N. Philadelphia St., Anaheim, Calif.
 KMX7611 Bruce Beececraft, 4515 Bellflower Blvd., Long Beach, Calif.
 KMX7748 Bob Callahan, 1817 Anacapa St., Santa Barbara, Calif.
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 KNH2587 Frank Mauler, R.F.D. 1, Olmitz, Kansas
 KNH2593 Card Swapping Dale, 125 E. Holden, Lemay, Mo.
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 KNJ8755 Jay Hodges, P.O. Box 318, Centralia, Ill.
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 KNJ9342 Max Reed, Box 320, Byron, Ill.
 KNK0383 Whitey Overton, R.R. 2, Clayport, Ind.
 KNK0460 David Sigo, Rt. 1 - Box 153, Goodland, Ind.
 KNK0580 Russ Draggist, R.R. 1 - Spring Bay, E. Peoria, Ill.
 KNK0706 Roy Powell, 706 S. Manhattan St., Indianapolis, Ind.
 KNK0717 Bob Major, 1136 E. Elmhurst, Decatur, Ill.
 KNK0846 Ed. Gressing, 7917 W. Medford Ave., Milwaukee, Wis.
 KNK1121 Rick Constable, North James, Goodland, Ind.
 KNK1126 Richard Danhauer, St. Paul Church, R.R. 2, Leitchfield, Ky.
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 KNK1188 Charles Primus, R.R. 2, Vincennes, Ind.
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 KNM7185 Victor Fortnoff, 1759 Kingsley Ave., Akron, Ohio
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 KNM7694 Keith Carnes, 2277 Oak Park Ave., Muskegon, Mich.
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 KNP7485 Daniel Trotto, 73 Hancock St., Little Falls, N.Y.
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 KNP7793 Pat Ryan, 203 The Portage, Ticonderoga, N.Y.
 KNP8792 Fred Wink, 3907 Isabella Ave., Allison Park, Pa.
 KNY0801 Patrick Schamun, 514 Lakewood Rd., Pensacola, Fla.
 KOA0002 Charles Yering, 85 Grove Ave., Groton, Conn.
 KOA0048 Paul Chartrain, 63 Joliette St., Manchester, N.H.
 KOA0066 Tom Garceau, 16 Moreau St., Manchester, N.H.
 KOA0708 Jerry Miller, 3 Fort Hill Rd., Groton, Conn.
 KOA0725 Phil McGinness, 27 Foster Dr., Beverly, Mass.
 KOA1143 Joseph Valera, 7 Belmont St., Fitchburg, Mass.
 KOA1239 Timmy Hayes, 20 Tracy Dr., Burlington, Vt.
 KOA1305 Don Getz, 7 Ertel Dr., Rockville, Conn.
 KOA1600 Lou Pelser, 9 Randall Rd., W. Peabody, Mass.
 KOA1862 Dick Rock, 15 Butler Ave., Chicopee Falls, Mass.
 KOA2106 R. Bradlee, 271 Carleton Dr., Cheshire, Conn.
 KOA3372 John Peplau, 52 Deerfield Ave., Middletown, Conn.
 KOD0014 Larry Gorin, 45 Kershner Pl., Fair Lawn, N.J.
 KOD0052 Bruce Gard, 41 Kershner Pl., Fair Lawn
 KOD0060 Marty Hughe, Box 584, Oxford, N.J.
 KOD0133 Bob Beinish, 5303 Ave. I., Brooklyn, N.Y.
 KOD0402 Barry MacGregor, 21 Nicholas Dr., Albany, N.Y.
 KOD0974 Marc Berman, 9 Anding Ave., Merrick, N.Y.
 KOD1488 Harry Clark, Box 236 Station "A", Marlboro, N.J.
 KOD3563 Big Bad Bob, 871 Falesky St., Rahway, N.J.
 KOG0003 John Saddle, 227 Printz Ave., Essington, Pa.
 KOG0186 Jim Moon, 108 Tenby Rd., Havertown, Pa.
 KOG1282 Richard Dieter, Box 882, Cherryville, Penna.
 KOG1742 Myles Moyer, 419 Crowell St., Lebanon, Pa.
 KOG1979 Donald Trayer, 341 Miller St., Bangor, Pa.
 KOI0316 Buck Short, 440 Overhill St., Morgantown, W. Va.
 KOI0491 Wayne Adams, Star Route #2, Box 54, Keyser, W. Va.
 KOI0503 Artie Johnson, Route #1, Harpers Ferry, W. Va.
 KOI0909 C.A. Kline, 51 Harvard Rd., Hagerstown, Md.
 KOK0189 Ricky Ricks, Forest Hills Rd., Wilson, N.C.
 KOM0594 Harry Blackwell, Rt. 1 - Box 68, Alexander City, Ala.
 KOM0962 Robert Williams, P.O. Box 178, Crossville, Tenn.
 KOM2155 John Driver, 2607 Lockwood Ave., Chattanooga, Tenn.
 KOM3237 Jim Ricks, P.O. Box 895, Lake Park, Ga.
 KOR0096 Neil Ward, P.O. Box 225, Newport, Ark.
 KOR0758 Joe Lamorgese, 1713 Nina St., Jacksonville, Ark.
 KOR1122 Joe Ward, 860 S. Cedar St., Mobile, Ala.
 KOR2255 Bob Moose, 711 Green St., Morrilton, Ark.
 KOT1172 Sandy McIntyre, 305 West Alamo, Brenham, Texas
 KOT2308 David Long, 703 Durden, Brenham, Texas
 KOV0047 B.J. Hewitt, 1017 East Jones St., Sherman, Texas
 KOV1413 Senus Henschel, P.O. Box 10753, Oklahoma City, Ok.
 KOV3113 Charlie Moreland, Box 402, Grand Saline, Texas
 KOX0094 Walt Hafner, 4203 W. 154 St., Lawndale, Calif.
 KOX0107 Bryant Russell, 2009 Del Amo Way, Bakersfield, Calif.
 KOX0442 Rich Hall, 242 W. Wedgewood, San Gabriel, Cal.
 KPA0040 R.W. Asher, 590 1/2 W. Plumb, Reno, Nev.
 KPA0139 Art Nicola, 369 Paul Ave., Salinas, Calif.
 KPA0810 Ray Strickland, 577 S. Veach, Manteca, Calif.
 KPA1346 Emma Baker, P.O. Box 641, San Pablo, Calif.

- KPA1706 Larry Jones, 1006 Santa Fe Ave., Albany, Calif.
 KPA2958 Frank Spenger, 482 Pebble Dr., El Sobrante, Calif.
 KPDI1340 Grace Ingersoll, 1202 Maple, Clarkston, Wash.
 KPE0337 Max Owen, 4802 W. 34th Ave., Denver, Colo.
 KPF0957 Jim Aurandt, 975 St. Clair Ave., St. Paul, Minn.
 KPF1020 Lew Martin, 962 West Third St., Winona, Minn.
 KPH0806 Jim Rookairds, 743 Wallgate, Waterloo, Iowa
 KPH2426 Victor Bagley, 6946 College, Kansas City, Mo.
 KPJ0231 Max Ramsey, 433 Michigan St., Wabash, Ind.
 KPJ0638 John Florelli, 2050 Grant St., Downers Grove, Ill.
 KPJ0667 E.A. Davis, 113 W. Wayne, South Whitley, Ind.
 KPJ1155 Terry Shepard, 223 1/2 E. Main St., Morrison, Ill.
 KPJ1260 John Manzenberger, 621 U St., Bedford, Ind.
 KPJ2143 Wheeler Dealer, 1323 Poplar St., Murray, Ky.
 KPJ2888 Lynn Durlfingler, Box 130, Fowler, Ind.
 KPJ3025 James Glaze, 3951 Grover Ave., Hammond, Ind.
 KPJ3446 Art Kerschke, 2420 Landwehr Rd., Northbrook, Ill.
 KPJ3598 Larry Dunn, 419 South Main St., Lacon, Ill.
 KPJ4718 John Snyder, 2336 W. 164th St., Markham, Ill.
 KPJ5550 Robert Clark, R.R. 1, Philo, Ill.
 KPJ5990 Keith Stuyvenberg, 617 North Superior St., Appleton, Wis.
 KPJ6568 Earl Howard, 406 S. Beacon St., Muncie, Ind.
 KPJ6866 Lewis Ballard, 309 N. Lafayette, Jerseyville, Ill.
 KPJ9130 Dick Schreiber, 715 Lincoln Hwy. E., New Haven, Ind.
 KPJ9416 Russ Eisner, 727 California Ave., South Bend, Ind.
 KPM0119 M.E. Welch, 870 Brownwood Rd., Mansfield, Ohio
 KPM0297 Bob Kiplinger, P.O. Box 61, Charlotte, Mich.
 KPM0695 Jerry Zimmer, 1416 1/2 Rickenbacher, Columbus, Ohio
 KPM1197 Phillip Shingledecker, 635 Walnut St., Lakeside, Ohio
 KPM1315 Bob Gould, Route 1, Adrian, Mich.
 KPM1717 Steve Gurren, 1555 Banklick St., Covington, Ky.
 KPM1807 David Heighton, 6215 Apple St., NE., Louisville, Ohio
 KPM2860 Tom Stelzer, R.R. 5, Defiance, Ohio
 KPM3350 Ronald Dailley, 123 E. Main St., Paris, Ky.
 KPM3638 Steve Derbyshire, 1362 Meadowbright Lane, Cincinnati, O.
 KPM3640 Charlie's Diner, 529 Carolina Ave., Chester, W. Va.
 KPM4092 Brian Bradford, 127 Heter St., Bellevue, Ohio
 KPM4279 Lee Kenstner, 1167 Jefferson St., Muskegon, Mich.
 KPM4732 Kyle Mishnes, Howard Place, Wheeling, W. Va.
 KPM5143 Harold Glaze, 7745 Montgomery Rd., Kenwood, Ohio
 KPM5521 Don Poynter, R. 3 - Box 46G, Corbin, Ky.
 KPM5630 Joe Cromer, 327 E. Third St., Monroe, Mich.
 KPM5845 Fred Parks, 1103 Polk, Bay City, Mich.
 KPM6003 Chuck Engelhart, 120 Kilbourne St., Bellevue, Ohio
 KPM6107 Bob Alexander, 953 Sheridan Rd., Marion, Ohio
 KPM6591 Gilbert Olsen, 5099 Potawatami Trail, Flushing, Mich.
 KPM9083 Dave Houdek, 392 Hollywood Dr., Saline, Mich.
 KPQ0065 Terry Split, 66 East Sunbury St., Shamokin, Pa.
 KPQ0836 Alvin Sharp, 428 E. Prospect Ave., Washington, Pa.
 KPQ0907 Roger Stern, 885 Wyoming Ave., Kingstons, Pa.
 KPQ0978 Tim Coutu, 176 Saranac Ave., Buffalo, N.Y.
 KPQ1637 Sheldon Millard, 35 1/2 Thayer, Jamestown, N.Y.
 KPQ1808 Al Guley, 194 A.W. Terrace, Baden, Pa.
 KPQ1810 Bill McKenna, 708 Linden Place, Elmira, N.Y.
 KPQ1827 Ronald Robinson, 716 Vine St., Scranton, Pa. 18510
 KPQ1854 Gary Hagen, Pleasant Valley Rd., Hammond, N.Y.
 KPQ2341 Ivan Smith, 419 Water St., Danville, Pa.
 KPQ2692 Harry Haught, 29 Marion Ave., Milton, Pa.
 KPQ2770 Jay Hawker, P.O. Box 227, Saratoga Springs, N.Y.
 KPQ2859 Curt Weis, Rd. 5 - Box 130, Latrobe, Penna.
 KPQ2971 Ed Krutz, 20 Furnace, Little Falls, N.Y.
 KPQ3170 William Wertman, 403 Liberty St., Watstown, Pa.
 XM11611 Robt. Moore, 8656 Cartier St., Vancouver, Sunny, B.C.
 XM112136M. L. McDougall, General Delivery, Prince George, B.C.
 XM151085 Darrell Valair, 3300 32nd Ave., Vernon, B.C.
 XM21704 Lynn Mantz, 752-7th St. S.E., Medicine Hat, Alb., Canada
 XM22444 Paul Cross, 9758 - 145 St., Edmonton, Alb., Canada
 XM22525 Gerry Runders, 85 Gamble Ave., Toronto, Ont., Canada
 XM412800 Skippy Massam, 66 Guthrie Ave., Toronto, Ont., Canada
 XM414097 Sidney Clarke, 40 Trethewey, Toronto, Ont., Canada
 XM42820 Dorson Valiquette, 7140 Justine Dr., Malton, Ont.
 XM431853 James Myers, P.O. Box 218, Val Caron, Ontario
 XM442709 Larry Serratore, 70 Tunis Ave., Sarnia, Ont.
 XM491497 Rene Primeau, 19 Nelson Rd., Lucerne, Quebec, Canada
 XM51800 Jim Varey, 9064 Godbout, LaSalle, Quebec, Canada
 XM531778 Arnold Mackeage, Box 616, Lennoxville, P.Q.
 XM532248 Andre Lefebvre, 350, 73 Ave. Sud., Sherbrooke, Que.
 XM552163 Carole Huot, 1663, Cite de l'Eglise, Sillery, Que.
 XM552222J.C. Mainguy, 799, des Chenes Est., Quebec, Canada
 XM56790 Jeanet Daneault, 410 105 Ave., St. Georges de Champlain, P.Q.
 XM56814 Andre Daneault, 552 8' Ave., Grand-Mere, P.Q.
 XM631022 Bill Meaking, 2581 Creighton St., Halifax, N.S.
 XM631107 Y. Houle, Warship H.M.C.S. St. Laurent, Fleet Mail Office, Halifax, Nova Scotia, Canada
 XM65624 Arthur Cogle, P.O. Box 551, Woodstock, N.B.
 Atl.1220 Kenneth Armel, 225 Pine St., Winchester, Va.
 Cent2263 Vern Weiss, 749 W. Water, Kankakee, Ill.
 Cent5000 Frank Zaitz, 5439 Dober Lane, St. Louis, Mo.
 Cent93026 Carl Swapping Dale, 125 E. Holden, Lemay, Mo.
 North99 Everett Decker, P.O. Box 411, Westfield, Mass.
 North1052 Charlie Stauffer, R.D. #1, Holtwood, Pa.
 North5015 Don Schmitt, P.O. Box #14, Gettysburg, Pa.
 North8247 Big Bad Bob, 871 Falesky St., Rahway, N.J.
 North1048David Burgard, 535 N. Bedford St., Carlisle, Pa.
 WPE1DRU Errol Decker, P.O. Box 411, Westfield, Mass.
 WPE1GEMEdward Madej, 193 Oak St., Indian Orchard, Mass.
 WPE1GHX Roger Murphy, 3 Allen Court, Keene, N.H.
 WPE1GRF Dick Clogston, Starks, Maine
 WPE2N10 Sheldon Shuff, 105-57 Flatlands 8th St., Brooklyn, N.Y.
 WPE2NDD Francis George, 420 Lexington Ave., New York, N.Y.
 WPE3FQQ Donald Schmitt, Box #14, Gettysburg, Pa.
 WPE3FSN Andrew Cwialina, 1674 W. Chestnut St., Shamokin, Pa.
 WPE3GYF Charlie Stauffer, R.D. #1, Holtwood, Pa.
 WPE4ENC Jimmy Bullock, 1628 Long Ave., Nashville, Tenn.
 WPE4WRJ Ken Armel, 225 Pine St., Winchester, Va.
 WPE9IGM N.K. Littell, R.R. 6, Lake Edgewood, Martinsville, Ind.
 VE7PEIAF Kenn Clapp, 6204 Dawson St., Burnaby, Canada
 WIA/L2054 Ralph Cooper, 112 St. Johns Rd., N.S.W., Australia
 K9HVS Martin Perry, 3 Indiana Ave., Danville, Ill.
 JA3-2320 Yutaka Tanaka, 66 I Bancho Koshien Nishinombya Hyogo, Japan
 PR-1550 Sten Wretstrom, Skanorvagen 28, Johanneshov (Stockholm) Sweden
 OZDR1261 Palle Nielsen, Humlebaekgade 13'', Copenhagen N. Denmark
 ONL170 Jacquet Camille, UBA P.O. Box 634, Brussels, Belgium
 SWL REF11.100 Jacques Parmantier, 12 Avenue du Colonel Fabien P.153 93-St. Denis, France
 SWL Philip Kurman 1729 S. Durange Blvd., Los Angeles, Calif.
 SWL/KH6 Rich Caldeira, 94-245 Leowahine St., Waipahu, Hawaii
 TN/DX.068/G M.A. Hall, 30 Montagu Crescent, Leeds 8 Yorkshire, England
 RFB69 Chicken Heart, 579 Dublin Way, Sunnyvale, Calif.
 3M3533 David Bubeck, 109 East Main St., Schuykill Haven, Pa.
 Central Printing, 920 Vandeventer, Fayetteville, Ark.

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Here's your chance to listen in on the closest thing to international intrigue to come along since U.N.C.L.E. The main difference is that these stations are for real—all part of the radio communications system of the famous INTERPOL organization.

INTERPOL is the abbreviation for International Criminal Police Commission, a Paris headquartered group which coordinates certain activities of member country's police departments. Since 1923, when INTERPOL was founded, they have gathered highly detailed records on all phases of jewel and narcotics smuggling, counterfeiting, white slaving, and numerous other shady enterprises, together with amazingly accurate tabs on those persons involved in same. This information is passed between Paris and the member nations in an almost constant flow on a number of different radio frequencies.

Most of the communications are carried on in standard CW or teletype, and from time to time some of the communications are in voice. We believe that our listing is the first time this information has ever appeared publicly in a national magazine—as you might imagine, INTERPOL isn't particularly keen on publicizing their communications network's inner workings. This list was obtained from official station registration records of the International Telecommunications Union of Geneva, Switzerland. Our list does not indicate stations of INTERPOL in the U.S. as the ITU records were not clear on these.

<u>CALL</u>	<u>LOCATION</u>	<u>FREQUENCIES</u>
4NX8	Belgrade, Yougoslavia	C
4XP40-66	Tel Aviv, Israel	E F I L
4XP63	Jerusalem, Israel	C
7RA20	Algiers, Algeria	B C D F E H I
AYA27-49	Buenos Aires, Argentina	H I L M N R
CNT	Rabat Morocco	C D E F G H I
CSI60-66	Lisbon, Portugal	B C D E F G H I
DHA33	Wiesbaden, W. Germany	B C D E F G H I
EEQ	Madrid, Spain	C D F G H I
FSB51-65	Paris, France	B C D E F G H I J K L M N O P Q R
GMP	W. Wickham, England	C D E H I M
HEP	Zurich (Waltikon), Switz.	B C D E F G H I
IUV81	Rome, Italy	B C D E F G H I L
LJP20-34	Oslo, Norway	B C D E F H I
LXF50	Luxembourg	B C D E F H I
LZH7	Sofia, Bulgaria	C
ODW21-23	Beirut, Lebanon	E H I
OEQ20-28	Vienna, Austria	A B C D E F H I L
OGX	Helsinki, Finland	B C D E H I
OMX	Prague, Czech.	E
ONA20	Brussels, Belg.	B C D E F G H I

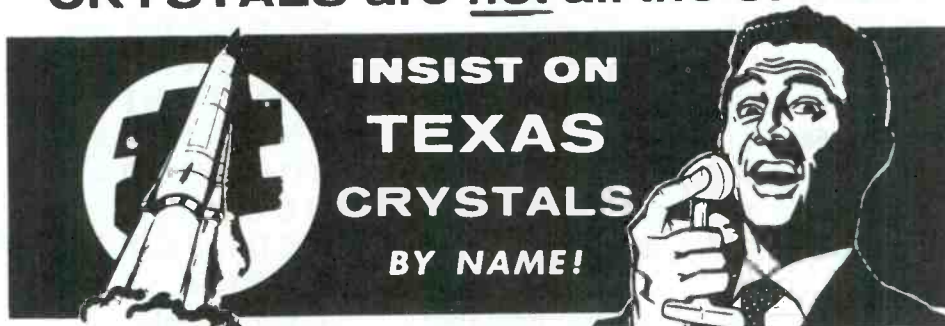
OWS3 -4 Copenhagen, Denmark
 PDB2 Utrecht, Neth.
 SHX Stockholm, Sweden
 SUA81 Cairo, Egypt
 SXP Athens, Greece
 TCC2 Ankara, Turkey
 XJD48 Ottawa, Ont., Can.
 XJE57 Almonte, Ont., Can.
 Saarbrucken, Germany

B C D E F H I
 B C D E H I
 C D E G H I
 C
 C
 H I L
 G I P R
 E H L M N
 E

FREQUENCIES: A 2593 kc/s
 B 2840
 C 3593
 D 4632.5
 E 6792
 F 7532
 G 9200
 H 10390
 I 14817.5

J 18190
 K 18380
 L 19130
 M 19360
 N 19405
 O 21785
 P 21807.5
 Q 24070
 R 24110

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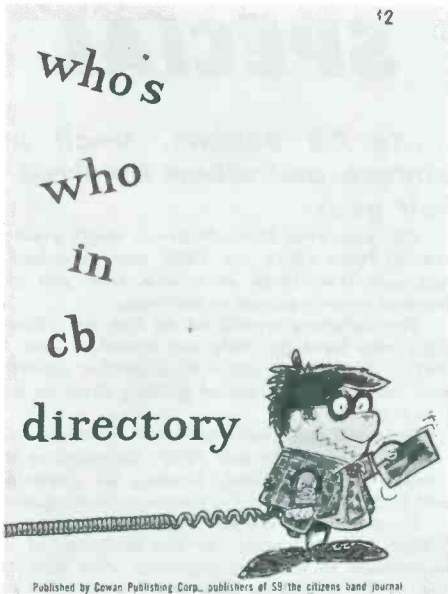
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Who's Who In CB Directory
% Cowan Publishing Corp.
14 Vanderventer Avenue
Port Washington, N. Y. 11050

Name: _____ CB Call _____
Address: _____
City _____, State: _____, Zip: _____

I enclose \$ _____ for _____ copy(ies) of Who's Who in CB. I _____om _____om not listed in this Directory.

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... to CB dealers, small manufacturers, distributors, QSL printers, and others involved in selling to CB'ers and servicing their gear.

Did you ever have business cards printed? What did you pay for them — probably you spent at least \$4.75 per 1000, and then had to spend considerable time and effort in giving them out. Trouble is, of course, that you give them out mostly to people who are already aware of your products or services.

The solution would be to run off about 100,000 cards and have them given to active CB'ers who have possibly not heard of you. OK, let's compute some costs — 100,000 business cards at \$4.50 (you got a discount for quantity) per 1,000 is about \$450.00, and you still are faced with the problem of getting them to new potential customers. You might as well forget it! But wait!!!

Suppose you could get your business card run off to the tune of about 100,000, and do it at the rate of 20¢ per 1000? Included in the price is the distribution of your business card to some 100,000 active, buying, CB operators — with no duplication, no waste. Sound too good to be true? It isn't, because S9 Magazine has worked it out and offers you this service.

Here's how it works. You send us your business card (or any ad which can be reproduced 1" high by 2½" wide, or the makings of an ad or business card which you want our art department to design), together with \$20. We will print your card or ad in our November issue of S9 — just in time for the Holiday buying season. Your card will then be circulated among the most active group of CB'ers ever assembled in a single group. Each card will be presented with instructions for removing from the magazine and posting at the station for handy use.

All you do is fill out the below coupon, send us the card or text, enclose \$20 (we cannot bill or allow agency commissions on these special ads) and send it in. *Deadline is September 15th, but earliest responses will get the prime positions.* Bet you never thought that you could reach potential customers so easily and inexpensively.

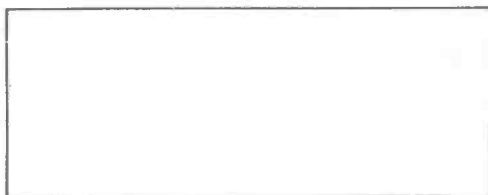
BUSINESS CARD BONANZA

S9/the citizens band journal

14 Vanderventer Avenue

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Here's my ad copy or business card for your Business Card Bonanza for the November issue of S9. I'm enclosing \$20.



Please send me information on selling S9 _____.

I now sell S9, please increase my supply from _____ copies to _____ per month.

Signature: _____

Company: _____

Address: _____

City: _____ State: _____ Zip: _____

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SEND US ITEMS FOR THIS COLUMN!

Address correspondence to:

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60 DIVISION AVENUE
GARFIELD, N. J.

A.P.R.E. Bulletin Board

New appointments this month to the
A.P.R.E. Staff include: R. E. Blumenthal, 2031
Oxford St., Halifax, N. S., Canada.

COMING EVENTS

3rd Annual Jamboree sponsored by the Bell City CB Radio Club, October 1st and 2nd, rain or shine, Lake Compounce, off Route 72, Bristol, Conn. Contact: P.O. Box 753, Bristol, Conn.

1966 Round-up. Site: Fort Wayne Coliseum, September 18th, sponsored by the Maumee Valley CB Radio Club. Grand prize, Color TV. Contact: P.O. Box 1031, Fort Wayne, Ind.

Cowan Ass'n Jamboree and Dance. Dance, September 24th, Jamboree, September 25th. Contact: O. W. Clawson, Box 38, Cowan, Ind.

Stateline Channel Masters CB Club, CB Jamboree, Sunday, September 18th, Geriaks Farm, Interyale Road, Stamford, Conn. Contact: Box 587, Port Chester, N. Y.

The Citizens Radio Ass'n of Crawford County Inc. is sponsoring their 3rd Annual Jamboree, September 4th, at the Crawford County Fairgrounds which is located on Route 77, just east of Meadville, Pa. Contact: Box 356, Meadville, Pa.

North Georgia CB Club of Dalton, Georgia will hold their 4th Annual Hootnanny CB Jamboree, Dalton, Georgia, Highway 71 north, 5 miles north of Dalton, Ga., September 3rd, 4th and 5th.

Spa Ten Four's CB Jamboree, September 25th, Kaydeross Park, Saratoga Lake, Saratoga Springs, N. Y. Rain or shine. Monitor channel 9.

4th Annual CB Jamboree, Saima Park-Richardson Road, Fitchburg, Mass., September 18th. The event is sponsored by the Radio 23 CB Club, Inc. Contact: P.O. Box 133, Fitchburg, Mass.

2nd Annual CB Jamboree, Sunday, July 24th Meadow View Acres, Canton, N. J. Sponsored by the Bridgeton-Ears CB Radio Club. Contact: Meadow View Acres, Buckhorn Road-Canton, R.D. 2, Salem, N. J.

CB Jamboree, October 15th and 16th, sponsored by the Metropolitan Dade CB Clubs newest club the Aid In Distress. The event will take place in the Tri-County area of Dade, Broward and Palm Beach. More info forthcoming. Contact: A.I.D., 525 N.W. Le Jeune Road, Miami, Fla.

CENTRAL

The Tri-County CB Club, Pana, Illinois, recently elected the following officers: President, Jim Jensen, KLL0142; Vice President, Harry E Beeson, KPJ2481; Secretary, Beverly Bergsneider, KPJ5290; Treasurer, Bert W. Deere, KHD1286; Sergeant-at-Arms, Dave Walters, KPJ1768.

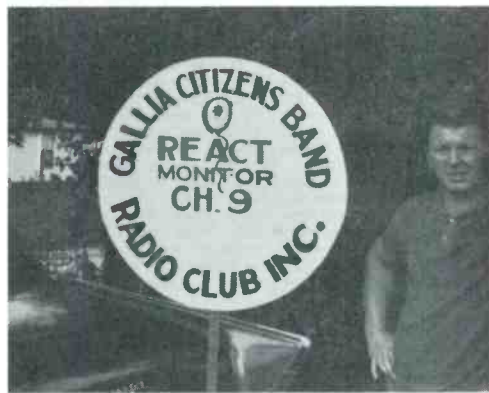
The Twin Lakes CB Club of Leitchfield, Kentucky was busy Sunday, June 5th. It handled all the tracking and communication for the annual Explorers Scouts Canoe Race sponsored by My Old Kentucky Home Council of the Explorers Scouts.

The race, 24 miles long, was held on Rough River Reservoir with 35 boats and 15 Councils taking part in the 7 hour race, beginning at 8 A.M. and ending around 3 P.M. for the slowest boats. 2 base and 8 mobile, or floating, CB units were used to give full coverage to the water-churning affair.

The June 9th issue of the Leitchfield Gazette had a long front-page article commending the Twin Lakes CB Club for its excellent coverage of the race.

Several picnics and other affairs are planned to be held by the club at Nolin Lake this summer.

The corresponding secretary of the Twin Lakes CB Club, Rev. Richard Danhauer, KNK1126, Route 2, Leitchfield, Kentucky, says that the club appreciates the many notices of summer and fall CB jamborees, and invites all neighboring states holding a jamboree this fall to contact him.



The Gallia County Citizens Band Radio Inc., Friday erected four new emergency signs on the outskirts of Gallipolis for the convenience of motorists passing through the Old French City.

The Gallia County Citizens Band Radio Inc., was recently appointed headquarters of a newly formed Radio Emergency Associated Citizens Team called REACT.

To help the club serve Gallia County and the surrounding area, the Gallipolis police have installed a new citizen's band radio, and are operating on channel 23. The REACT team is operating on channel 9.

Robert Cox, president of the Gallipolis club, pointed out, "From an accident scene on a remote country road, a citizen whose car is so equipped can instantly alert an ambulance, doctor and hospital staff.

"Through an organized effort we expect to utilize its potential to its fullest extent," Cox concluded.

The local group has two primary purposes:

1—To provide Gallia County with an efficient round-the-clock system of radio communications instantly adaptable to emergency situations.

2—To promote correct and efficient use of CB's.

Northeast Iowa Citizens Band Radio Club Inc. A good turnout was present at the June business meeting. Don Schoenfeld, KLH1476 gave a report on the progress made with the float for the Fourth of July parade to be held in Evansdale, Iowa.

Volunteers were asked for to establish the children's games for the picnic. Any ideas on these will still be appreciated.

Mike Nordstrom, KN10442, gave us the information on the first aid classes. The planned drill for the emergency unit was discussed with Al Harper, KGI-7567 giving us the details.

Ray Zummak, KGI8139 gave us information on a jamboree in Hannibal, Missouri.

The Northeast Iowa Citizens Band Radio Club Inc. at its June meeting approved a subscription rate for its club publication, the Citizens Bander. The rates are as follows: per copy to non-members, 10¢; per yearly subscription, \$1.10.

Two classes have been started for first aid. Floyd Warnek and Ted Faust are the instructors. These

are being held at the "Y" in Evansdale. Thanks to Mike Nordstrom, KN10442 and Fred Roquet, KNH-9366 for getting this job done.

Hub Area Radio Klub (HARK), Oelwein, Iowa. Meetings held 3rd Tuesday night of each month.

Beautiful Fontana Park, southwest of Hazelton, was the site selected by the Hub Area Radio Klub (HARK) for their June meeting . . . Ray Zummak, of Waterloo, who represented the Northeast Iowa CB Club Inc., made several comments concerning what CB'ers can contribute toward public relations . . . for example, over the past month HARK has assisted many motorists when in trouble along the highway, and this should prove a value in organized CB Clubs . . . This service will be used by HARK to further better relations with the motoring public. . . .

At the meeting a movie was presented by Supervisor Robert Buckman and Park Supt. T. V. Van Laningham. The movie title was "The Year of Disaster." . . . A wiener roast and refreshment was served following the meeting. . . . Plans are to have the July 19th meeting also at Fontana. . . .

Buchanan and Delaware County CB Club, Independence, Iowa. Meetings held 2nd Thursday night of each month.

About 75 members including their wives attended a wife appreciation day, June 12th, at Fontana Park at Hazelton, Iowa. Originally, it was to be held at Keith Pearson's cabin on the Wapsipinicon River, it was changed to Fontana Park due to bad weather conditions. Dinner was served by the men, which included ham, baked beans, potato salad and coffee.

Members of the Buchanan and Delaware County CB Club were on standby duty twice this month due to bad weather conditions in the area. A member of this club had some bad luck due to the storm and high winds, his antenna was blown down. We are sorry to hear this, Smokie, KLK0264. With the aid of some CB'ers in the area a new antenna was erected.

Here is a new items for the Believe It or Not column: A local CB'er ran out of gas not too far from his home, ask Ed Mudder, KPJJ7100.

News Item: On your way into Independence, Iowa be on the lookout for the new signs put up by the local club members. "MONITORING CHANNEL 11." Congratulations on this accomplishment.

Mr. & Mrs. Gordon Altland (formerly KHC1072, Independence, Iowa) now of Illinois were visitors at the home of Slim Gramenz, KG16008, Waterloo, Iowa, last weekend. On his return trip back to Illinois, he stopped at Independence to visit some of his friends.

WESTERN

Desert Sands Citizens Radio Club, Inc., 10/20 California City, California. On March 10, 1966 assisted in aiding a person who had a respiratory attack. This particular couple had just left the California City Inn and were on the way back home when the attack struck the man in his automobile. His wife at once asked for help. J. W. Harris, KKK9923 happened to be near so also was one of the city's volunteer fireman who ran to get an oxygen resuscitator. J. W. Harris, KKK9923 put out a 10/33 via 100 mw walkie-talkie and within 2 minutes four other volunteer firemen were at the scene. CB radio in this instance aided, but was not the prime means of contact in saving this man's life. It did, however, provide support and backup personnel. It was also so impressive to the manager of the inn that he had a CB radio installed in the inn and is going to have one installed in his personal car and also the car of the owner of the California City Inn.

Desert Sand Citizen's Radio Club, Inc., 10/20 California City, California. On March 8, 1966 at 1415 hours this club was alerted to participate in the search for a lost woman, last seen near the California Borax Mine, Boron, Calif., a distance of approximately 35 miles. By 1500 hours 12 mobile CB units of the club arrived at the Kern Sheriff's base camp and by 1600 hours the search was well under way supervised by the Sheriff's Department of Kern County.

One of the 12 mobile units acted as master controller for the other 11. The master unit was parked next to the sheriff's mobile control unit and by this method all units could be controlled from one focal point. Instruction, progress of the search, and/or directions as to what areas to go into for search operations were handled on a 10/6 from the sheriff's car to all CB units through the CB master unit. At 0020 hours, the morning of the 9th the woman was found; tired but very much alive. Again thanks to citizen's band radio and the proper and sensible use of this service.

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and See the
Difference*



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The Pleasant Grove Radio Communications Unit of the C.A.P., held a general get together at Granite Flats in American Fork Canyon on June 10th at 7:00 A.M. All C.A.P. members and prospective CB operators spent the balance of the day in recreation until time of disbursement. This is a regular yearly feature of the C.A.P. communication unit for its members. An advance guard of radio operators went up the canyon the previous day to make preparations for the outing and breakfast the following day.



Rev. Keith Miller, KNE9889, 210 East 2nd North in American Fork, Utah is a duly ordained minister of the Assembly of God Church and keeps in contact with his flock by CB radio, both mobile and base communications on a daily basis. Being a man of God, he feels that Gods teachings has truly taken to the air waves and in on call 24 hours a day should one of his friends, members, or any body need help. Keith, as he is known to his CB friends is kind, affectionate, level headed, broad minded and devoted to his work. He is also a member and chaplain of the Utah County REACT Drill System Teams. . . . Rev. Miller has three little harmonics, namely, Joan, David and John as well as a sub harmonic his wife, all are devoted CB operators and enthusiasts. All CB operators in this area and mobile stations passing through are invited to give Rev. Miller a call, particularly if they need spiritual help or care to meet a true man of God.

Desert REACT, 10/20 Ridgcrest and China Lake, California. Dateline: June 16th, 8 P.M. A regular monthly meeting was held and the following members were present: Jack Raffel, KXX3382; Billy Ridge, KMX7539; Martha Tyler, KMX0800; Helen Wright, KXX1888; Ted Wright, KFA2936; Danny Reagan, KMX2576—Unit No. 1; Nancy Reagan, KMX2576—Unit No. 2. The first order of business was the reading of an discussion of minutes of the last meeting held the 17th of May 1966. The business of selecting decals and patches was discussed with the final agreement being a combination of red, gold and black also it was agreed that members would buy patches and decals for 25¢ higher than cost so as to raise more money for the clubs fund. The motion was seconded and carried by all present. A motion was also made to purchase maps and sell to anyone that might need one, this motion also being seconded and carried. Club outings were also discussed and Jack Raffel was appointed as program chairman, being seconded and carried by all. Meeting was adjourned at 9 P.M.

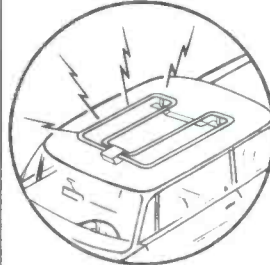
Utah State CB Jamboree. Utah CB'ers met and enjoyed their annual outing at the Lagoon Recreation Center, just 10 miles north of Salt Lake City, Utah on June 26, 1966 in the Oak Terrace. Highlights of the day was: free beer, bingo, dance, soda water, general chit-chat, prize drawing, professional rides, concessions, etc. . . . Mrs. Lois Brown was in charge of ticket sales. . . . The UCBA, Utah Citizens Band Ass'n and the WCRA, Weber County Radio Ass'n played host to the balance of the CB operators and clubs throughout the state. . . . Plans are presently being made for a larger, bigger and better Jamboree, same time, same place next year. . . . Festivities commenced at 10 A.M. and continued until midnight of the same day, with many CB mobiles traveling in convoy, to and from the Jamboree area. Thes um of \$1.50 was charged all persons attending to defray expenses. A very fun-loving day was experienced by all who attended and all are looking forward to the next Jamboree next year. . . . Hats off again to all members of the committee who were responsible for our good time at the outing.

June 7th, California held its primary election for governor and other important offices. The National Broadcasting Company working with the California Election Service asked CB'ers to participate in the

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MODEL CB-42
CB 11 Meter 27 MC

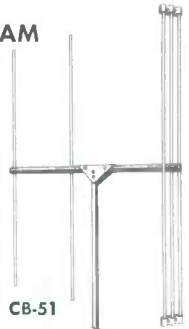


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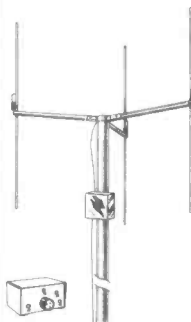
The DRR Antenna has been designed to incorporate the electromagnetic efficiency of naturally resonant quarterwave whip antennas with a low profile which can be easily installed on vehicle roof tops and precisely tuned over a wide range of frequencies. Because of its unique design features, the DRR Antenna will normally outperform quarter-wave mobile installations, both in transmit & receive modes. Other frequencies available — from 27 to 180 MC. CB Net \$29.95.

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Maximum in range, efficiency and performance. A vertical three element beam giving an 8 DB forward gain with an expanded beam width in the forward direction, and at the same time by use of a reflector screen (triple reflectors provide higher front to back ratio than normally provided on a 3 element beam) the front to back is greatly improved. Actually the increases of front to back will give the effect of a greater forward gain. Longest element — 18 2/3", boom length, 9'3", turning radius — 10'4". CB Net \$39.95.



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A beam type antenna that actually is three beams in one. Elements can be used individually or all at the same time for OMNI-DIRECTIONAL reception. Direction is selected immediately by a twist of the wrist at the control desk and without the use of costly, slow moving rotators. The Orbiter consists of three half wave dipoles, gamma matched so as to utilize coax feed and so constructed electronically that any one dipole can be selected as a driven element while the other two become a reflector screen. The forward pattern is a little over a half of a circle, therefore, as each dipole is selected the overlapping patterns give a full 360° coverage. Available for frequencies — 27 Mcs to 175 Mcs. CB NET \$71.95.

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election returns. Mobile units were assigned a number of voting precincts to go to and receive a snap tally of the vote for the most important race, that being for the governor. West Valley REACT members were honored to be part of this vast service to the CES and NBC. As soon as we received the snap tally from the precinct, we would call in the report via our mobile rigs to control who in turn had an open direct line with NBC. As soon as NBC received it, it would be computed with the rest of the votes coming in and then flashed on television immediately. The voters of California were informed immediately and exactly as to how this very important primary race was going. We were also informed that if all went well on this occasion, then in November when the gubernatorial election is held, we would again be asked to participate in that California history making election.

June 28th, the membership of West Valley REACT was honored to be the guest of the Van Nuys Police Department for a two hour guided tour through their new facilities here in the San Fernando Valley. The main interest to us of course, and the most time spent, was in the communications department. Sgt. W. G. Henrichs our guide, was very helpful to us by answering all of our questions. The vast communications work they perform is one of amazement when you stop to think that each dispatcher handles approximately 1000 to 1500 calls during their shift. West Valley REACT certainly urges other REACT teams to contact their local police department and inquire about a tour of their facilities, it will be worth every minute spent there.

Pictured above is one of the four public information signs, indicating the name of the club and the local monitoring channel, of the Gallia County Citizens Band Radio Inc. These new signs were recently installed on the four main highways leading into Gallipolis, Ohio. Also in the picture is Bob Cox, president of the club, inspecting the new signs.

The local club, Gallia County Citizens Band Radio Inc. as it is known, is an up and coming organization starting from a few members a short time ago to its present membership of more than fifty. Earlier this year the club was accepted into the national emergency organization, REACT, thereby offering 24 hour assistance to any one who might need it.

A new CB unit was recently installed in the local police station to provide official help whenever called for. The club stands ready to help the area law enforcement agencies any time their services are needed. One way in which they help, is by patrolling the area at night every year around Halloween, this has cut down vandalism considerably in the past few years.

In April of this year several members took a standard first aid course, which will help them in their effort of being better able to serve the community and themselves whenever first aid is needed. Also it will help in one of the club projects now being formed, which is a search and rescue unit. They will have a truck, fully equipped for nearly every situation, ready to move into action at any time.

Another of the clubs community projects is giving help in any possible way to the Guiding Hand School, a local school for mentally retarded children. This past year gifts and other items were given the children at Christmas time, which made this Christmas a more merrier one for all.

The 1966 officers of the club are: President, Bob Cox, KLN4539; Vice President, Bob Wood, KH16002; Secretary, Gladys Grant, KNM3393 and Treasurer, Opal Stover, KDC0866.

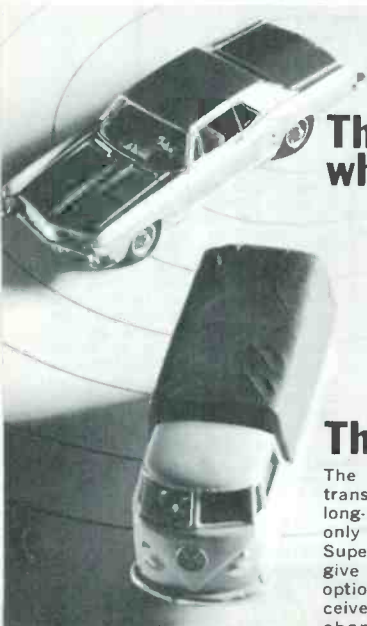
The meetings are held the first and third Wednesday of every month at the local K. of P. Hall. Many of the summer meetings are held outside at one of the areas picnic spots.

The meetings are open to the public and everyone is cordially invited to attend.

One of the clubs projects for the future is a Jamboree or Roundup to be held at the local fair grounds. Committees have been appointed, and everything is in the planning stages, but will be progressing in the months to come. As of now it is scheduled for some time in 1967.

NORTHERN

A wide spread distress call was transmitted on the eleven meter band June 7, 1966. Roger Williams General Hospital in Providence, Rhode Island, had a sixty-seven year old patient who was desperately ill. The hospital had been using O Negative Blood all day and was dangerously low when this man had to have an emergency operation. A plea was broadcasted on a local



**This car was 7 miles out
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This one more than 20 miles out.

The car further from home base has the Squires-Sanders 23'er CB transceiver. It's the one transceiver that provides powerful, readable, long-range communication. It features the exclusive Noise Silencer, the only positive way to stamp out noise caused by ignition, power lines, etc. Supersensitive receiver, 100% modulation, maximum power transmitter give you long-range two-way communication, in your car or (with the optional AC power supply) at home base. "23'er", full 23-channel transceiver, all crystal supplied, \$235. Its 5-channel counterpart model "S5S", channel 9 crystals supplied, \$185. See Squires-Sanders communications products at your dealer.

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AM radio station for anyone having this type of blood to call the hospital immediately. An unidentified CB'er called Mrs. Mary Darigan, president of the John F. Kennedy Chapter of REACT in Providence, and told her of the plea. Mrs. Darigan confirmed the story with the hospital and immediately called all available REACT units in areas covering most of Rhode Island. The request was transmitted over all twenty-three channels every five minutes. Periodical contacts were made with the hospital on the progress of the donors. The technician in the blood bank at the hospital reported hundreds of phone calls being accepted at the switchboard. Finally, after two and one half hours, a sufficient amount of this rare blood was obtained, the operation went on as scheduled, and the patient pulled through.

Congratulations to the following people on an exceptionally fine job: Mary Marigan, KMA0217, Warwick, R. I.; Diane Grandchamp, KBD2369, Cranston, R. I.; Gene Walters, KKA0816, East Providence, R. I.; Ronald Orabona, KKA7652, Cranston, R. I.; Mike Berigan, KOA0604, Cranston, R. I.; Bill Burns, KOA3035, Cranston, R. I.; Rich Paiva, KOA3412, East Providence, R. I.; Ray Handy, KMA5542, Cranston, R. I.; Bob Sirkin, KOA2672, Cranston, R. I.; Dennis DeConstance, KKA9327, Providence, R. I.; Jim Southworth, KMA9622, Providence, R. I.; John Goward, KMA1007, Cranston, R. I.; Bob Kelly, KMA0948, West Warwick, R. I.; Charlie Veirling, KMB0007, Providence, R. I.; Jeff Jacober, KOA0741, Cranston, R. I.; and special credit goes to Charlie Hendrec, KOA2859, of Warwick, R. I., for volunteering to transport a donor from Warwick to the hospital.

A newly formed REACT unit has been organized in the Pocono Mounts area of Pennsylvania with headquarters in Stroudsburg, Pa.

The new unit, Monroe County REACT, 40 Stofflet St., Stroudsburg began community operation June 12, 1966 with a meeting and charter presentation at the YMCA in Stroudsburg.

Officers elected were: President, George Diehl, KMG-0636; Vice President and Secretary, Emery Evans, KMG4078; Treasurer, Ronald Zeiner, KMG3559; Director, Waldron Smith, KMG3644; Communications Officer, Steven Berman, KMG3223; Public Relations, Richard Fabel, KMG3947; Vice President, Gary Fabel, KMG3947 and Chaplain, Rev. David G. High.

The unit will hold its general membership meeting the first Tuesday of each month and a coffee break the last Sunday of each month. First aid and life saving classes have been arranged to further aid the members to carry out their duties.

June 11, 1966 at 9:45 P.M., Ernest Taruse, member of the Attleboro Police Department, received word that a six year old boy had been reported missing. Little Raymond McGarty had left his house to go fishing in Butterfly Pond about a mile away from his home at 5:00 P.M., and had not returned.

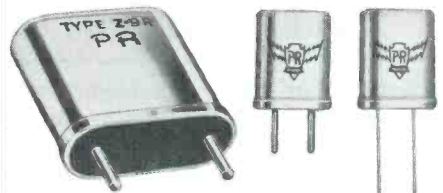
Mr. Taruse confirmed the story ten minutes later and immediately contacted Ray Filado and Ray Perry, of the Pawtucket CB Minutemen, to start and organize a search. Cavello's Construction Co. donated one of their garages near the scene of the disaster for the control center of the search. A Lafayette HB-400 and a Magnum 27 antenna were donated for a base set up. The search began with Ray Ducharme at the controls directing all the mobile units under the call letters KBA5933. After covering the immediate area for three hours with no success, the search was temporarily called off.

Sunday morning, Attleboro police called for all available volunteers, Civil Defense volunteers, and all off duty policemen to aid in the search. Mrs. Mary Darigan, KMA0217, President of the John F. Kennedy Chapter of REACT in Providence, contacted Mr. Robert Kelly, KMA0948, Air Officer of the Coventry Radio Patrol, who in turn called his team to Attleboro. Mrs. Darigan also contacted her REACT team to keep channels 9 and 15 clear of all unnecessary transmissions. Steady contact was made with the Attleboro police as every radio and television station in Southeastern New England kept the general public well informed of all the latest happenings. Firemen were canvassing the bottom of the pond with no luck, and the chief of police instructed the search to widen to the streets of Attleboro. More CB'ers drove to the scene to see if they could be of any assistance. REACT monitors were continually answering calls from people wanting to help find this youngster.

The search continued through Sunday, starting again on Monday with still no trace found. All hope for the boy being found safe and sound was fading fast. Late

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Monday, helicopters were brought in for a complete air search, results were negative.

Tuesday morning, sixty National Guardsmen were called in for a last desperate attempt at finding this boy. This reporter accompanied by Richard Thurston, KBC5366, traveled to the scene. Locating the area without assistance was a useless endeavor, so trying not to interfere with important communications, we asked for directions. Immediately, Ray Ducharme sent a mobile unit to guide us in to the makeshift base control. Dick and I, with camera in hand, interviewed Mr. Ducharme who, by the way, was completely exhausted. We also interviewed the mayor of Attleboro and the Civil Defense Director of Attleboro who were quoted as saying that they did not realize how important and useful Citizens Band Radio could be in an emergency under a well organized team. A proposal will be made in Attleboro to have the Pawtucket C3 Minutemen work in conjunction with civil defense in an emergency.

At about 2:30 P.M., a report was received that the body of little Raymond McGarty had been found at the bottom of Cranberry Pond, another pond across the street from Butterfly Pond. Dick Thurston diligently volunteered to scuba dive for the fishing pole at the bottom of the pond.

I, personally, was amazed at the fantastic job exhibited by the Minutemen. The following are the names of most of the units of KBA5933 that volunteered three days of their time to participate in this tragic experience: Ed Bourgault, John Henry, Frank Wilkins, Hector Beaupre, Ernie Krause, Don Perry, Al Morris, Joe Silva, Rogert Fournier, Ed Perry, Mike Laplantie, B. Desmarais, Daniel Burns, A. Pathier, Ray Perry, Al Terriene, Max Garuard, Joe Feline, Norm Acain, Bob Perry, Marice LaPorte, Able Sabas, Ed Standard, George Adams, Ronald Fournier, Larry O'Connell, Bob Almeida, Walt Curan, Art Krause, Mrs. John Krause, Cecile Pothies, and a personal thank you to Dick Thurston for assisting me and taking the above pictures.

SOUTHERN

Venice, Fla.—A Florida West Coast REACT member, living in a small community south of Sarasota called Venice, assisted the Florida Highway Patrol and county sheriff's department early Sunday morning, June 5th.

Mark A. Stires, KKP2650, Venice REACT monitor, received a report of a local high speed chase by the highway patrol. Several minutes later the speeding auto crashed just south of Venice. Stires rushed to the scene with his mobile rig to help if needed. Upon arrival, the reactor was given details by the highway patrol.

The auto was chased some fifteen miles at a rate of speed over 115 mph by the highway trooper. After crashing into a pole, the driver of the vehicle ran on foot into underbrush, followed by the trooper firing his pistol after he was quoted as saying, "Stop or I'll shoot."

Seconds later several sheriff deputies and other law enforcement officers arrived to assist the lone trooper. In the meantime, the CB'er quickly noted the license plate number and called in by CB radio to Venice police who monitor channel 21. It was checked out to be a stolen vehicle and the driver was an escapee of a road gang and was reported dangerous.

Bloodhounds arrived and were let loose to find the prisoner.

Stires, still at the scene, was asked by FHP officer to watch the stolen automobile and to let no one touch or move about the car, since footprints and fingerprints were fresh.

Later, while still searching for the missing escapee, fingerprints were dusted by the sheriff's department. About three hours later a report was received that the escapee had caught a bus out of Venice and the whereabouts of him was not known.

Florida Highway Patrol Trooper Tindle, the person on the high speed chase, later cited Reactor Stires for assisting the law officers and in exchange, Stires explained what CB and REACT were.

The CB radio operator is secretary of the Venice Area CB Club, Inc. and is a South Sarasota County Rescue Squad volunteer.

CB'ers save lives on Fourth of July. They call it "Operation Safety Alert."

It's the way some Americans celebrate the "glorious Fourth."

"Operation Safety Alert" is a way of saving lives—on the "glorious Fourth" and other holidays when

highway traffic rises to its peak.

These safety-minded Americans who take part in "Operation Safety Alert" view with alarm the ever-rising death toll on the nation's highways and give their holiday time to help protect the lives and limbs of their fellow men.

In this number are the Crescent City Citizens' Band Club—and its distaff side. The ladies support their husbands in their amateur radio activities in the interest of safety.

The ladies and their husbands operate Citizen Band receivers, so named because their use is limited to voice radio communications between citizens. They are not to be confused with so-called ham operators.

For short, these operators are called CB'ers. They operate under Federal Communication Commission regulations, and their equipment is limited to an output of five watts. There are 23 channels assigned to them.

These CB'ers have piled up an impressive record of public service by aiding both the New Orleans Police Department and the Office of Civil Defense. Last year on July 4th—also on Labor Day—they were on duty manning observation posts along the Chef Menteur Highway (U.S. Highway 90 East) and U.S. Highway 11 to Slidell.

The greatly increased holiday traffic adds to the danger of accidents on this stretch of highway, wholly within the city of New Orleans. So far this year this stretch has claimed 11 lives in traffic, according to the Metropolitan New Orleans Safety Council.

The CB'ers save lives and help prevent serious accidents by reporting obvious hazardous traffic violators to the police. They report to radio centers in communication with the police. This radio description is then rebroadcast over the police radio to enforcement units, who in turn, apprehend the miscreants before they can endanger lives.

Mrs. Donald T. Ward and Mrs. Marie Fisher are among the active CB'ers who work side by side with their husbands. There are others.

This year again the ladies with their CB mates will man both the Chef Mentur Highway and U.S. Highway 11 to help cut down the upsurging number of holiday accidents in that area. They will be on duty from 6 P.M. on July 1 to 10 P.M. on July 4th.

A group of 15 special observation posts marked with signs, "Operation Safety Alert," will be set up at strategic points along the highway. Obvious traffic violators who pass here will be immediately reported to the police for apprehension.

Cooperating in this holiday "Operation Safety Alert" to save lives are the Metropolitan New Orleans Safety Council, the city of New Orleans, and the New Orleans Police Department.

CB'ers are on their life-saving duty in other emergencies, too—like Hurricane Betsy.

CANADA

Greater Montreal REACT Teams Registered held the drawing for a 12 inch portable TV. The tickets were drawn at a sugaring off party held by XM Mont Royal. There were about 300 local CB'ers in attendance. Winner of the TV was Michel Laroche, one of 14 children who had recently moved to Montreal to help solve dire financial problems. Mr. Laroche, who is not a CB'er, is a member of the band that was on hand. Strangely enough, he borrowed 30¢ from his date so he could buy 2 tickets. Shown in the photograph are from left



to right, Roger Gendron, XM52-704, president of XM Mont Royal and interim first vice president of REACT. Mr. Laroche, and interim president of REACT, Jack B. Coleman, XM52-4155. Mr. Gendron drew the winning ticket. Proceeds from the drawing go to help REACT buy proper equipment for their mobiles.

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Sales Manager
Pearce-Simpson, Inc.**

This is hurricane season for the State of Florida and the city of Miami in particular. At this time of the year, storms spanning in the Caribbean area can suddenly develop into full fledged blows with winds up to 150 to 200 miles an hour. This was brought home very emphatically a few weeks ago when Hurricane Alma came tearing up the West Coast of Florida just close enough in to deluge this area with tremendous rainfall and at certain times, extremely high winds. During storms of this type, wire lines are always torn out, communications are disrupted and from a civil defense and public safety point of view, chaos can take place at any moment. It is during times like these that citizens band radio comes to the forefront in bringing order and in taking the place of disrupted wire line communications. The sometimes maligned CB'er now becomes the civic hero (he generally is all of the time, in spite of obstacles to himself and to his network). There are so many instances we can relate concerning the feats of the CB'er during times such as this, that it would be impossible to list them all. It's not even fair to designate any given area such as ours or to single out one type of natural catastrophe, since the same principle pertains to the tornado and flood areas of our country where the same type of communications breakdown occurs. Having been associated with CB since its birth 8 years ago it is wonderful to watch the change in the attitude of the community towards the CB'er. Once looked upon as a nuisance, he is now categorized as a wonderful auxiliary to civil defense and police agencies.

It is only in times of emergency such as these that we suddenly stop and reflect upon the great changes which have taken place.

How are you assisting in these efforts? Every four months we publish a true CB in Action story. See what your neighbor is doing to aid his community. Remember CB is important and it is comprised of people like yourself. Be active, follow the rules and continue to have the best interest of your community in mind at all times.

WIN A COMPANION 11 CB

"CB in Action" is your story. You can win a Companion 11 if we run your account of any event in which CB played an important role in helping you or your community. Send your story to Les Hench, Sales Manager, Pearce-Simpson, Inc., P.O. Box 800, Biscayne Annex, Miami, Florida 33152.

The Montreal Bilingual Radio Club recently held a sugaring off party for its members. Also on hand were Mort and Linda Heller, KLP9144, from Plattsburgh, New York. Mort, who is going over to Viet Nam with the U.S. Air Force at the end of April, came up to spend time with his friends in Montreal before he leaves. There was fun for everyone including prizes for the children. George Borduas, XM52-3900, who is the clubs activities director has quite a few events planned for the future. Any persons interested in joining the MBRC should send for information to MBRC, P.O. Box 42, Montreal 19, Quebec, Canada. While membership fees are \$3.00 per year associate membership fees are \$1.50.



Jim Wynne, Miami Marine Engineer, world champion ocean power boat racing driver and winner of the 1966 Miami-Nassau Ocean Power Boat Race makes contact from his turbine powered "Ghost Rider" to communications control on his Pearce-Simpson Catalina 75 watt marine radiotelephone.

Forty-five boats streaked across Government Cut, Miami, at 7:00 A.M., April 25th, leaving a wake that could be seen for miles. This was the Miami-Nassau Ocean Powerboat Race called "the most rugged race in the world."

Pearce-Simpson, Inc., Miami-based manufacturer of marine electronic equipment, acted as official radio and communications control center for the fourth consecutive year. Pearce-Simpson designated officials manned communication units at the starting point and maintained a constant contact with race checkpoints reporting race results and/or boats in distress.

The turbulent Gulf Stream swamped two boats before they could reach the Bahamas. Stanley Norman, English driver of Surrey, lost his 25 ft. Halmatic off Cat Cay. Ron and Bud Tuppen of Lake Worth saw their 23 ft. Formula sink in the same general area. All were rescued quickly.

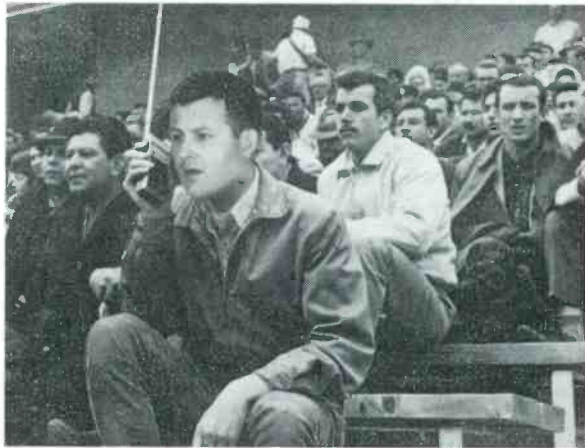
Miamian Jimmy Wynne, a bearded marine engineer, took first place driving a 28 ft. Formula Special with twin 500 hp Daytonas through four foot seas in three hours fifty-one minutes and four seconds. Wynne's "Ghost Rider" skimmed across the water at speeds ranging up to 67 land miles per hour. His quick-moving craft, like 12 out of the first 25 to cross the finish line, was equipped with a Pearce-Simpson marine radiotelephone.

The Miami-Nassau Ocean Powerboat Race is sponsored by the Bahamas Powerboat Association and Captain Sherman F. Crise, the originator of the event, was Race Chairman.

Entries for the bluewater classic were drawn from all parts of the world and nation and included many veterans of the grueling 180-mile sustained dash across the Gulf Stream.



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TWR-8, full 2-watts input power hand-held portable. Extra small—conveniently carried—14 transistors. Delivers solid signals under conditions where other units drop out. 2-channels—earphone for privacy in crowds, etc. 2-antennas: 10 section whip and 9½"

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MW-2, 100MW, 9-transistor, 2- C-B channels. Package includes crystals for Chan. 11, battery and 9 volt adapter for 117V AC operation. hand strap. Polished chrome grill and trim—woodgrain panel. An exceptionally low price—
22.95 each



MW-3, 100MW, 10 transistor C-B unit w/3 switchable channels—important in system work as golf tournaments, conventions, etc. Exclusive! Silent standby w/attention tone triggered by incoming signal! Complete with earphones, crystals for Chan. 11, battery (provision for AC adapter available as accessory), handstrap.
42.50 each



AM-100, 100MW personalized 9-transistor C-B unit and excellent AM broadcast radio for news, music, sports. Wonderful for football, baseball games. Hear broadcast, switch to talk with friends in stands, etc. Supplied with leather carrying case, earphone in case, crystals for Chan. 11, telescoping antenna.
Complete 37.50 each

Send for QIK-FACTS bulletins on 2W and 100M^w equipment.

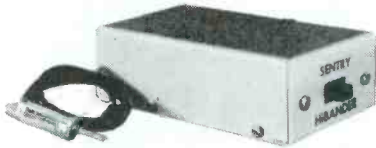
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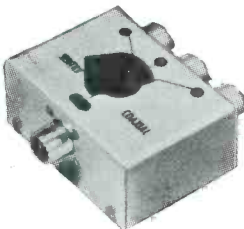


The SENTRY TalkPOW'r is an advanced 3-transistor booster providing up to 40 db voltage gain for soft voices, up to 20 db clipping for average microphones and voices. Advanced feedback circuits minimize noise and distortion. . . . Space-age etched-circuit construction gives maximum reliability. Completely self-contained; A mike cable is the only connection to the transceiver.

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Kit \$15.00

Printed Circuit Board and complete instructions with parts list and schematic \$ 2.00



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The SENTRY COAXIAL SWITCH permits one cable to do the work of three. Handles more than 250 watts of RF power . . . may be cascaded. This versatile switch uses standard SO-239 (UHF series) connectors, has negligible insertion loss and leakage. Sturdy construction is protected by a durable satin-etched finish.

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PAC-1 MICROPHONE AMPLIFIER



Get full carrier modulation with the SENTRY MICROPHONE AMPLIFIER/SPEECH CLIPPER. Easy to install, this amplifier uses the advanced 6DS4 Nuvistor tube, operates from a power source of +100 to +280 volts DC and 12.6 volts or 6.3 volts AC or DC. Ideal for amplifying "weak" voices, yet maintains 100% modulation.

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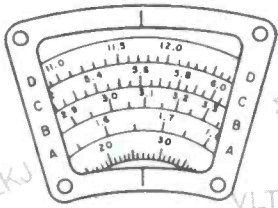
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THE SWL SHACK

BEST BETS FOR LISTENERS ON THE DX BANDS by RICK SLATTERY

Our SWL mailbag is constantly growing larger and it really is good to see so many new reporters joining the ranks. There are still a few bashful souls out there who haven't sent in reports, however, and perhaps the growing column will inspire them.

One bashful type is our own Uncle Tom Kneitel, Ye Editor of S9. We used to hear from him once in a while but he seems to be snubbing us now. We spoke to him a few weeks ago and he was just setting up a new 10-20 with a Lafayette HA-225 receiver, Ameco dual Nuvistor preamp, a panoramic adaptor, an "LM" (navy) frequency meter, and a few hundred feet of wire. His big problem was that he was about 2500 feet the gigantic shortwave transmitting complex and antenna farm operated by ITT in Suffolk County, N. Y. He was last seen trying to sneak over the fence to hook a line to one of their fantastic antennas. Oh well, maybe we'll hear from him eventually, even if it's a report on one of ITT's new transmitters!

A new reporter here is Francis F. Garrett, KHJ9482, Zanesville, Ohio. On his Lafayette HA-230, Frank hooked HCJB on 17890 kc/s at 1830 EST; ELWA (Monrovia), 15155 kc/s at 1700 EST; Trans World Radio (Bonaire) 11820 kc/s at 1000 EST; Radio Budapest, 11910 kc/s at 2030 EST. Let's hear from you again.

Here's something from Bill Harvey, KMA7668, New London, Conn. Bill says that Radio Prague sends a nice QSL and a free program guide for a correct detailed reception report. He heard them on his Matsushita receiver from 2000 to 2100 EST on 7115 kc/s, but says that they can also be heard on 7345, 9505, 11990, 5930, 6055, 15285, 21450 kc/s. Their address is: North American Service, Radio Prague, Prague, Czechoslovakia. Bill also sends in the following data: Radio Berne (Switzerland), 6120 kc/s at 2130 EST; Deutsche Welle, 11925 kc/s at 1850 EST; Radio Moscow, 9665 or 9685 kc/s until 2135 EST.

Jim Sterbutzel, KID2774/K3FCQ, Connellsville, Pa., stumbled upon some "spy" transmissions. One was heard several times on about 3200 kc/s around 2100 to 2300 EST running CW with 5 digit numbers. A second station is around 5300 kc/s with periods of Spanish music and coded numbers. Jim wrote to the FCC to report the station on 5300 and was told that they were aware of the station, but they didn't comment on the nature of the transmissions. These stations are becoming as thick as flies around a honeypot.

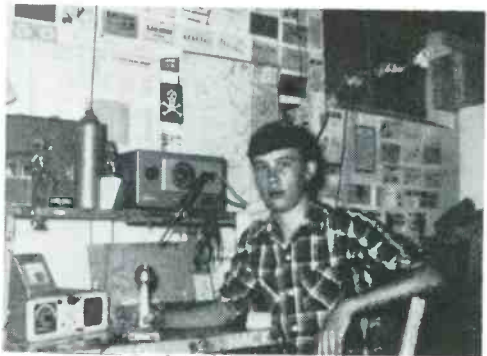
We recently inquired as to the present status of the American SWL Club. A letter from Stewart MacKenzie, Publisher/Treasurer, advises that they are, indeed, still in business. If you wish membership data on the ASWLC, contact Stew at 16182 Ballad Lane, Huntington Beach, Calif. 92647. They welcome S9'ers at ASWLC.

Greenicks from Vancouver, and another sizzling report from Mike Thompson, boy wonder with the ancient Rogers-Majestic Model 20 receiver. Mike graduated from high school last June and now that that's out of the way, perhaps he'll be able to spend some more time at the dials. Anyway, mazel-tov on graduating—it's hard enough as it is, but complicated with DX'ing makes it a double job. Mike has: Radio Berlin International, 11875 kc/s at 2315 EST; Radio Australia, 17840 kc/s at 2000 EST; Radio Norway, 11785 kc/s at 2200 EST; Far East BC, Manila, 11850 kc/s at 1200 EST; Radio Habana, 15270 kc/s at 1400 EST; Radio Rome, 15385 kc/s at 2000 EST. On his 6 transistor receiver (with a 70 foot longwire antenna) he dug out Radio Luxembourg on 1439 kc/s and even got a QSL! Nice going.

Gilbert Kurman, Los Angeles, Calif., reports hearing N.H.K. (Japan) 11780 kc/s at 2300 EST; Vatican Radio, 0000 EST on 3950 kc/s; Radio Lisbon, 11849 kc/s at 0105 EST. Weather reports were heard on utility stations NMC (San Francisco) 2662 kc/s at 1130 EST; NMQ (Long Beach, Calif.) 2694 kc/s at 0000 EST; KLH (San Pedro, Calif.) 2451 kc/s at 2330 EST; and KOE (Eureka, Calif.) 2451 kc/s at 1200 EST.

A new reporter is Rodney Wilhelm, Glens Falls, N. Y. who says to look for Radio Nederland, 9590 kc/s at 1841 EST. He heard it on a Heathkit GR-64.

David Krutz, KPQ2971, 20 Furnace St., Little Falls, N. Y. 13365, wants to hear from other SWL-DX enthusiasts. He reports hearing United Arab Republic BC on 11915 at 0515 EST, and also station CFCF in Montreal heard all day in the 6 mc/s band. Receiver is a G.E. World Monitor.



Vic Prezioso, KMD3411, of Pearl River, N. Y. sent in a spiffy shack photo showing him seated at

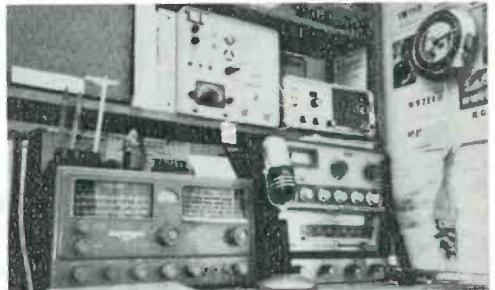
the operating position with a Hallicrafters S-94 VHF monitor and Tecraft Falcon CB rig. Vic is a 100% swapper. He asks if we can give him any information on a station he hears on 35.22 mc/s announcing "KEAB60, Pageboy, New York." This is a "radio paging" service which is used by doctors and others who rent little pocket receivers from "Pageboy." When they are away from their offices, the Pageboy operator intercepts the call and then broadcasts the customer's code number on the air over and over again until he tunes in his receiver and knows to call up to get his message. You might get a QSL letter from KEAB60, we've seen a few. Their address is: Page Boy Inc., 66 Willoughby St., Brooklyn.



Another shack photo comes from Ricky Trevena, KMD4083, Staten Island, N. Y. It shows a Webcor tape recorder, Navy surplus RBO receiver, Hammarlund HQ-129-X receiver, Lafayette HA-52 VHF re-

ceiver, e.c.i. Courier CB rig, and an antique Hallicrafters S-20R. Rick has swapped over 3000 cards and is a member of the Garden State CB Radio Club with his dad.

George Stradtman, Jr., Bloomsburg, Pa., picked up Radio Sweden, in English 0900 EST on 15420 kc/s; RJR (Jamaica), heard in English and Spanish around 1750 EST near 9638 kc/s; and we're looking forward to hearing from you soon again, George.



Mike Troy, KAK0464/WA2TYV, Port Chester, N. Y. is a familiar name to regular S9 readers (remember his great article "CB'er or Con Man?" a few issues back?). Here's a shot of his radio shack showing gear representing the following manufacturers: National, Gonset, Regency, Heath, Lafayette. Mike sends data on Radio Kiev (USSR) 1930 to 2000 and 2330 to 2400 EST in the 31 meter band on Monday, Thursday and Saturdays during the summer. On the TV bands, Mike skipped in with WLBT, Jackson, Miss., Channel 3. On CB he received XM63058 in Nova Scotia skipping around on CB Channel 9, and an Argentinian CB'er,

continued on page 86

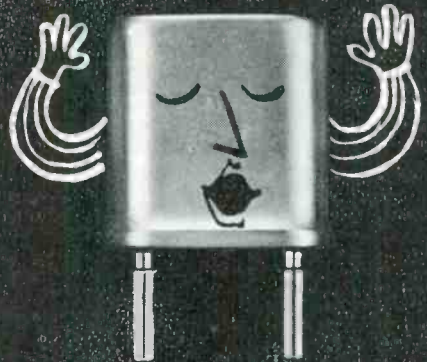
SO, WHAT'S NEW?

CTS Knights Golden Line CB crystals have always been *fully guaranteed . . . always will be.* CTS Knights crystals are *all* "first cuts" from virgin quartz. That doesn't mean that there has never been a defective crystal. It does mean that if you get one, we'll replace it at no cost.

I guess that's something like a lifetime guarantee. Let's call it that so that there'll be a degree of standardization in the industry.

BIG NEWS FLASH

lifetime guarantee?



Holy Crystal, Batman!

ALL CTS KNIGHTS CRYSTALS ARE HEREAFTER "LIFETIME GUARANTEED."



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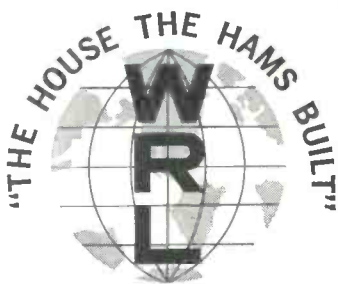
Dept. S99B

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WASHINGTON OUTLOOK

Does our tired old eyes good to see that the FCC monitors are on a summer holiday, or else CB'ers have shown exceptionally good operating habits. We say this because this is about the smallest listing we've run into since the one run last December, when we thought that the FCC had gone out of business! Here's all we were able to come up with.

- Operator sent notice to show cause why his license should not be revoked:

KLTO136, Sergio Esteves, Caguas, P.R. (failing to respond to official notices).

KIG0210, James V. Gomillion, Honolulu, Hawaii (failing to respond to official notices).

KFA7776, John James Kingery, Bell Gardens, Calif. (for failing to respond to official communications).

KNM5584, Melvin R. Waldecker, Detroit, Mich. (numerous violations including using station as a hobby, communications relating to the technical capabilities of CB gear, etc.).

KMI3459, Flora M. Tillett, Annandale, Va. (same as above).

- Licenses revoked:

KIJ0417, Israel Garcia, Naguabo, P. R. (failing to respond to official communications).

KHJ8262/W8RXH, Charles J. Kulabonish, Bridgeport, Ohio (transmission of obscene, indecent or profane language).

KGI3090, William B. Hopkins, Ballwin, Mo. (failing to respond to official communications).

7Q1110, Joe A. Fisher, Miami, Fla. (failing to respond to official communications).

- \$200 monetary forfeiture:

KMT1050, Rowland E. Webb, Kirbyville, Tex. (using station as hobby, failing to properly identify station).

- \$100 forfeiture:

KHI0760, Robert C. Ashbrook, Bloomingdale, Mich.

- Reduced from \$100 to \$25:

KCG3649, William R. Klob, Glen Burnie, Md.

KEH4790, Bruce Rowan, Dallas, Tex.

- They set aside actions against:

18Q0742, Lawrence B. Dube, Great Lakes,

Ill. (show cause proceeding dropped because Dube settled on a monetary forfeiture and has taken corrective measures to preclude a recurrence of the violations which brought about the original FCC action).

KIJ0367, Noel Farinacci, Ponce, P. R. (cancelled \$100 monetary forfeiture which was brought about by operator's failure to respond to FCC correspondence, but cautioned Farinacci that if he fails to answer future FCC correspondence he might receive either another monetary forfeiture or a revocation of his license, or both).

KKM1716, Sarah A. Horne, Quitman, Ga. (same as 18Q0742).

- The FCC stayed action against:

KEH6538, E. B. Christopher, Howe, Tex. (pending further review, the FCC's initial decision to revoke his license, per show cause notice).

- The FCC denied:

KNM5983, William J. Cargill, Milan, Mich. (his request for reconsideration of the FCC revocation of his license was denied and he was ordered off the air by August 9th).

- In other FCC actions, they:

Amended Part 87 of their rules which govern the Aviation Radio Services, to permit the use of 121.5 mc/s by additional ground stations. New stations permitted on his emergency channel would be aeronautical advisory, multi-com, flight test, instructional and search and rescue mobile stations, all providing the individual applicants for operation here could show a need for the use of the channel.

Named Rosel H. Hyde to the Chairmanship of the FCC, replacing E. William Henry. Chairman Hyde has been a long-time FCC veteran, having served in the post of Vice-Chairman of the FCC since 1952, except for several rather brief periods when he took on the duties of Chairman. Hyde is a non-controversial personality, as Washington executives go—a Republican, and well liked by all those who have worked with him for the many years he has been on the scene.

Named Nicholas Johnson, age 32, to serve a seven year term as an FCC Commissioner. Johnson was previously Federal Maritime Administrator.

They are now considering the permitting of SSB transmission on CAP channels.



READER MAIL

continued from page 6

Canada). Copies of our petition form will be mailed out to all clubs and individuals who request them.

Garry McGrory, XM-23-1965
Box 147
Calgary, Alta.
Canada

This may be the answer. Let's all get out and get these petitions filled in and returned to the Calgary GR Club.

GOOD BUDDY WEEK?

Dear S9,

Why do all CB'ers down south call all CB'ers "Good Buddy?" They also leave out the sound of the letter "n" in the word "transistorized." Why?

Tony Russomanno, KKE0173
Whippany, N. J.

You ought to hear what "they" say about Yankee accents.

SCARCER THAN EVER

Tom,

I've been a CB'er since March and have learned a lot from S9. One complaint is that it's rough to get copies of S9 on the newsstands hereabouts. I know I should subscribe, but I haven't gotten around to it yet. There seems to be only one location within miles and miles of my house where you can get S9. I think that if you could promote more locations to sell S9 that your circulation would double—at least it would in the San Gabriel Valley of California. Friends in Bakersfield tell me they have the same trouble getting S9.

By the way, your magazine and ad on the Johnson Messenger 100 really influenced my purchase of this set.

Richard N. Voorhees, KOX1044
La Puente, Calif.

It's unfortunate that in many areas S9 is rough to find, but we can't go in and force a store to carry the publication. We would appreciate any leads our readers could give us in regards to CB shops which do not now sell S9. Send us their name and address and we will furnish them with sufficient information to enable them to stock S9 each month. It would also help if CB'ers would make it a point of asking for S9 frequently in shops which do not sell it, so at least the owner of the shop would realize that he is missing out on a sale. Too frequently a CB'er walks into the CB shop, doesn't see S9 and doesn't even bother to ask why it's not on sale. The shop owner would be only too happy to stock S9 or anything else from ping-pong balls to chop sticks if he thought that there was a demand for these things by CB'ers. If you don't see it, ask. If he doesn't sell it ask WHY! If he wants it, tell us! If he takes it as a result of your sending us the lead, I'll send you your choice of any S9 "Bonanza" gifts. That goes for any of our readers.

OPERATOR'S MANUAL

Sirs:

Please send us 50 copies of your CB Operator's Manual. It's the most informative, compact, and easiest to understand manual we have ever seen.

Harold Geist
Morgan County Sheriff's Posse, Inc.
Fort Morgan, Colorado

Tom:

Here is our check for 200 copies of your CB Operator's Manual. Send them as soon as possible so that we can pass them out at our next meeting.

Lee Stone, Treasurer
CB 7-11 Radio Club
Spokane, Wash.

Single copies of the new revised edition are available for 25¢ each (postpaid) from S9. Bulk copies are available for 10¢ per copy in lots of 25 or more (postpaid).

SECRETS?

In your June editorial you said that those CB'ers who work skip are in for a big surprise but that you were pledged to secrecy as to the exact details. What kind of talk is that? Aren't your readers entitled to ALL of the facts and the entirety of your knowledge or are we wasting our money in subscribing to S9?

Dave Lane
Corpus Christi, Texas

S9 does not promote illegal use of CB, nor do we condone it. In fact we feel that those who flagrantly violate the rules which they have sworn to follow deserve any trouble which they eventually earn for themselves. Anybody who expects to find us encouraging the violation of the rules here IS wasting money in subscribing to S9. Rule violators are the ones who make it rough on all of us—2% making the other 98% suffer. I don't like it and not too many readers do either.



KBG4303 RIDES AGAIN

continued from page 9

of service stations from coast to coast—you've seen their ads on TV, in magazines, on the radio, billboards, etc. They spend mucho shekles to promote their names, goodwill, and (hopefully) create new and loyal customers for their products. What if one of these companies would start a program to have CB installed at all of their stations (or at least the ones in rural areas)—speak about public service—WOW! Not only public service, but speaking strictly from a \$ and ¢ aspect, think about the goodwill being created with some 850,000 CB licensees (operating about 2,300,000 CB rigs) who, we feel, would certainly be predisposed to support service stations which promoted CB radio and offered the advantages of Citizens Band communications to the public. And don't forget, about 20,000 new CB'ers are added to the rolls each month!

Perhaps the CB equipped service stations could be shown on the company's road maps—and possibly signs indicating CB coverage could be erected on all main roads within the station's coverage area. What a feeling of comfort it would be to know that you could, in the event of trouble, pick up your mike and call "KXX1234 to any XYZ service station on the channel." And it's even a free "radio" commercial for the oil company!

Seems to us that many CB manufacturers would be happy to work out some sort of special deal with any oil company wishing to order CB equipment in large quantities.

We at S9 would be anxious to help promote such a program, act as intermediaries, offer copious amounts of publicity on the project, or do anything else necessary to get something such as this "on the road."

Copies of this editorial are being sent to all major oil chains and we will keep you posted as to any progress we make. By the way, we know that we have many readers who operate

service stations, and we would appreciate any help or advice they might wish to offer. A nice "booster" letter from the service station to the "Home Office" wouldn't hurt either.

O.K., oil companies—you want to improve

WE NEED CB DEALERS!

AS distributors handling all Major brands of CB equipment, antennas, and accessories we can offer local dealerships to aggressive CB dealers and installers. Write at once for information and your costs on the brands you prefer to handle. Dept. 624

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Model

SSB-27 CB Transceiver

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Yours Now! Not at some future date. A practical reality for immediate delivery. *Dealer inquiries invited. Protected territories available for those qualified with SSB experience.

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SUPER STAR BURST MODEL SSB-1000
EXTENDED RANGE MODEL
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public service. Here's your chance! S9 Magazine is willing to extend itself at any length to expand you in this direction.

S9

ANTENNAS

continued from page 50

too far. For example, if you're tuning your antenna with an SWR meter and cannot get SWR down from 1.2 to 1.1, it might not be wise to toss out antenna and coax line. The chart shows that power loss between these two values is about a piddling one per cent. But if you check differences at the bottom of the chart, you can see that far greater loss occurs when SWR goes from 1.8 to 1.9. You'll see that the final entry on the chart indicates a 25 per cent power loss when SWR is 1-to-1, which means that fully one-quarter of the antenna power is lost.

S9

SWL SHACK

continued from page 82

callsign 1A515, working skip like maaaaaad in English and Spanish on CB Channel 8. The broadcast band turned up TGJ (Guatemala) on 880 kc/s (through WCBS?), KGBS (Los Angeles) on 1020 kc/s (through WINS's sidewash?), ZBM-1 (St. Georges, Grenada) on 1235 kc/s, Radio Belize on 834 kc/s.

Steve Jones, KLO0519, Lawrenceburg, Ky., has enough of a report to fill this column even if nobody else bothered to write! His recent Ham QSL's include: TG8CJ, HI8JAT, UA1KED, HP9FC/MM, and CR6GV (what, no K2AES?). Steve's favorite "spy" station is on 3225 kc/s and he reports that they have changed over from Spanish to English now. "Can Can" music is played until 2300 EST when they start with the coded numbers, the broadcast commencing with "1234567890 0987654321 188 188." Then into coded 4 digit numbers (188 of them), then the countdown bit again, and a repeat of the whole broadcast. We're taking bets that this station is located right here in the States, judging from the signal.

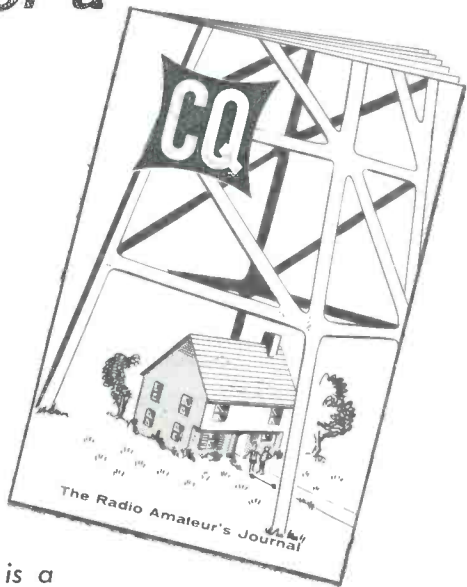
Be sure to listen for the really great DX program heard over Radio New York Worldwide, Station WNYW formerly WRUL), each Saturday at 1808 EST on 15440 and 17840 kc/s. A repeat broadcast is heard Sunday at 0808 EST on 17730, 15155, 15440, and 17880. This program airs late DX tips, special reports from listeners throughout the world, latest news of international broadcasting stations, etc. The staff at WNYW also has organized the Radio New York Worldwide Listeners Club, now numbering 2400 members in 72 nations. You get a numbered membership card—send details of yourself and your station to: Mr. Irwin Belofsky, Pres., Radio N.Y. Worldwide Listeners Club, 485 Madison Avenue, New York, N. Y. 10022. Include a stamped, self addressed envelope. Mention that you are an S9 reader. We at S9 most enthusiastically support this very worthwhile club which is doing so much for the hobby and we urge our readers, in turn, to support the club. We are kicking around the possibilities of a column on WNYC's DX club activities to appear exclusively in S9 each month. This would supplement the monthly DX bulletin sent out to members by WNYW.

Next month we'll have a complete listing of all of the marine telephone stations to be heard by North American listeners—this includes frequencies, calls, power, etc. of Telephone Company, Coast Guard, etc. stations operating in the 2 mc/band. We'll also include intership and other special frequencies.

Send in those shack photos and reports.

S9

"What's an ad for a Ham magazine doing in a CB mag like S9?"



Well, for one thing, CQ is published monthly by the publishers of S9. Being chock full of technical articles, and construction projects for the radio amateur, the hobbyist and the electronic experimenter, CQ is a must for anyone interested in radio as a hobby. CQ could very well heighten your understanding of and interest in communications activities. CQ can be an invaluable supplement, providing a wealth of technical data and ideas.

CQ sells for 75¢ per month, BUT S9 readers may subscribe at substantial savings. You can obtain a one-year sub with the special coupon below for only \$4.50 per year, A SAVING OF A FULL 50%!!!

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

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.

Embossed QSL's 25 samples 25¢ (refunded) ACE PRINTING SERVICE, 3298 Fulton Rd., Cleveland, Ohio.

CITIFONE OWNERS—CD5, CD5A, and CD SS"—Our special transformer kit will increase your signal 60% with no loss in modulation. Hundreds of satisfied users—\$13.50 postpaid, NO C.O.D.'s. Specify model, simple instructions included. RUSS HELLEN's CB Center, 1481 Florida St., P.O. Box 9134, Memphis, Tenn. 38109.

SWL Program Guide, English programs of forty shortwave stations listed by the hour. "The Key to SWLing." \$2.00. SWL, 218S Gifford, Syracuse, N. Y. 13202.

WORLD'S finest radios. Recorders, Transceivers, Portables. Free catalog. Mini-tronics, 1983-9639 Via Del Rio, Corona, Calif. 91720.

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QSL's two-color 12 pt. glossy white stock. 500—\$6.00, 1000—\$10.00 postpaid. Samples free. Lile Guill, Rustburg, Va. 24588.

QSL's—BROWNIE W3CJI-311 Lehigh, Allentown, Pa. Samples 10¢ with catalog 25¢.

QSL's, CB, WPE. Samples 10¢. N & S Print., P.O. Box 11184, Phoenix, Ariz.

GENERATOR NOISE FILTER. Eliminates car generator whine, \$2.50. Also Voltage Regulator Filter, \$2.50. Highest quality. Engineered Products Company, Springboro, Ohio.

QSL CARD COLLECTORS! I have lots of extras. Send self-addressed, stamped envelope and 25¢ for 10 different. Bob, 270 Chapel Rd., Wheeling, W. Va. 26003 (KPM5077).

NOTICE

From S9

A licensee of a Citizens radio station may advise the Commission of a change of name or of mailing address by letter. No application or fee is required, and no superseding license, change of call sign, nor acknowledgment will result from such notification. Supply the following information:

Station Call Sign _____

Licensee's name as shown on license _____

Licensee's address as shown on license _____

Licensee's new name and/or mailing address _____

_____ Zip Code

Licensee's signature _____

You may use this notice to furnish the information if you desire. Mail it to: Federal Communications Commission, 334 York St., Gettysburg, Pa. 17325.

FEDERAL COMMUNICATIONS COMMISSION

WANTED: Antique radios, early 30's and before. Will buy or offer CB gear in exchange. What have you got kicking around the attic, what kind of condition is it in, what do you want for it? No haggling, state lowest price or deal first letter. Box BJS, % S9 Magazine, 14 Vander-venter Ave., Port Washington, N. Y. 11050.

FREE SAMPLES—CB QSL CARDS—\$2.50 per 100 in 3 colors. Garth Printing Company, Box 51S, Juland, New Jersey.

QSL Cards—Full Color, Glossy Stock. Free Samples. F. B. Mathews, 1616 Rural Street, Rockford, Illinois 61107.

CB DEALERS ONLY—The 1966 edition of the dealer's most profitable friend, "THE LIFE-LINE COMMUNICATIONS EQUIPMENT CATALOG," number CB-4-N, of connectors, test equipment, tools, and accessory items is now available. For your copy, including a complete direct-to-the-dealers price list, write: LOGAN RADIO COMMUNICATION SUPPLY COMPANY, 2110 Avenue J, Lubbock, Texas 79405.

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CB DEALERS!—If you haven't got it—you can't sell it. Why send your business somewhere else? Here at Graham Radio, we have thousands of CB and amateur radio units and accessories at dealer wholesale prices, and available for immediate shipping. Write for our latest dealer catalog. Graham Radio Inc., Dept. S, Reading, Mass. 01867. Tel. (617) 944-4000.

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Crystals Guaranteed any channel—most sets \$1.99 ea. \$3.80 pr. cash with order shipped postpaid radios and accessories. Crystal King, Box 439, Big Rapids, Michigan. Dealers invited.

MINIATURE LICENSE PLATE. Your call sign embossed in raised letters on 7" x 2½" weather-proof plate. \$1.00 postpaid. RGN, Box 145T, Yale, Michigan.

Have 1-BC 1335 units with xtals, mikes, & CQ conversion article by Leo Sands. \$10.00 cash or P.O. money order will buy both. Both with all tubes & in working order. Also 1-BC 604 with 12v dynamotor & xtals for \$5.00. Will ship REA collect on receipt of payment. Roth Radio & TV Service, 13617 Bell Rd., R. 2, Franksville, Wis. 53126.

MINIATURE LICENSE PLATE. Your call embossed in raised letters on 7" x 2½" steel plate. \$1.00 postpaid. RGN, Box 145U, Yale, Michigan 48097.

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WRITE: K-S—800 South Main, Salinas, Calif.

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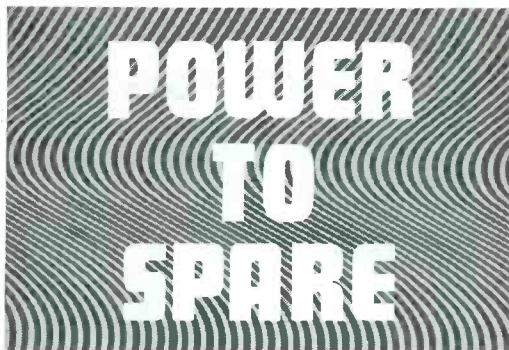
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PICTURE of yourself, home, equipment, etc. on QSL cards made from your photograph. 250—\$7.50 or 1000—\$14.00 postpaid. Samples free. Write Picture Cards, 129 Copeland, La Crosse, Wis.

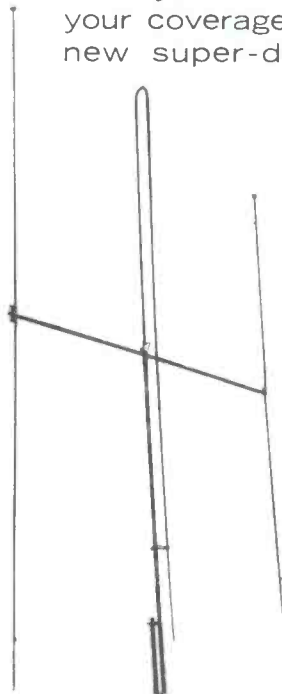
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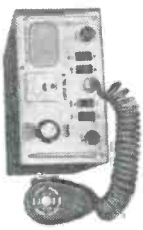


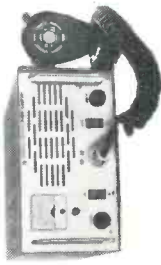

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