

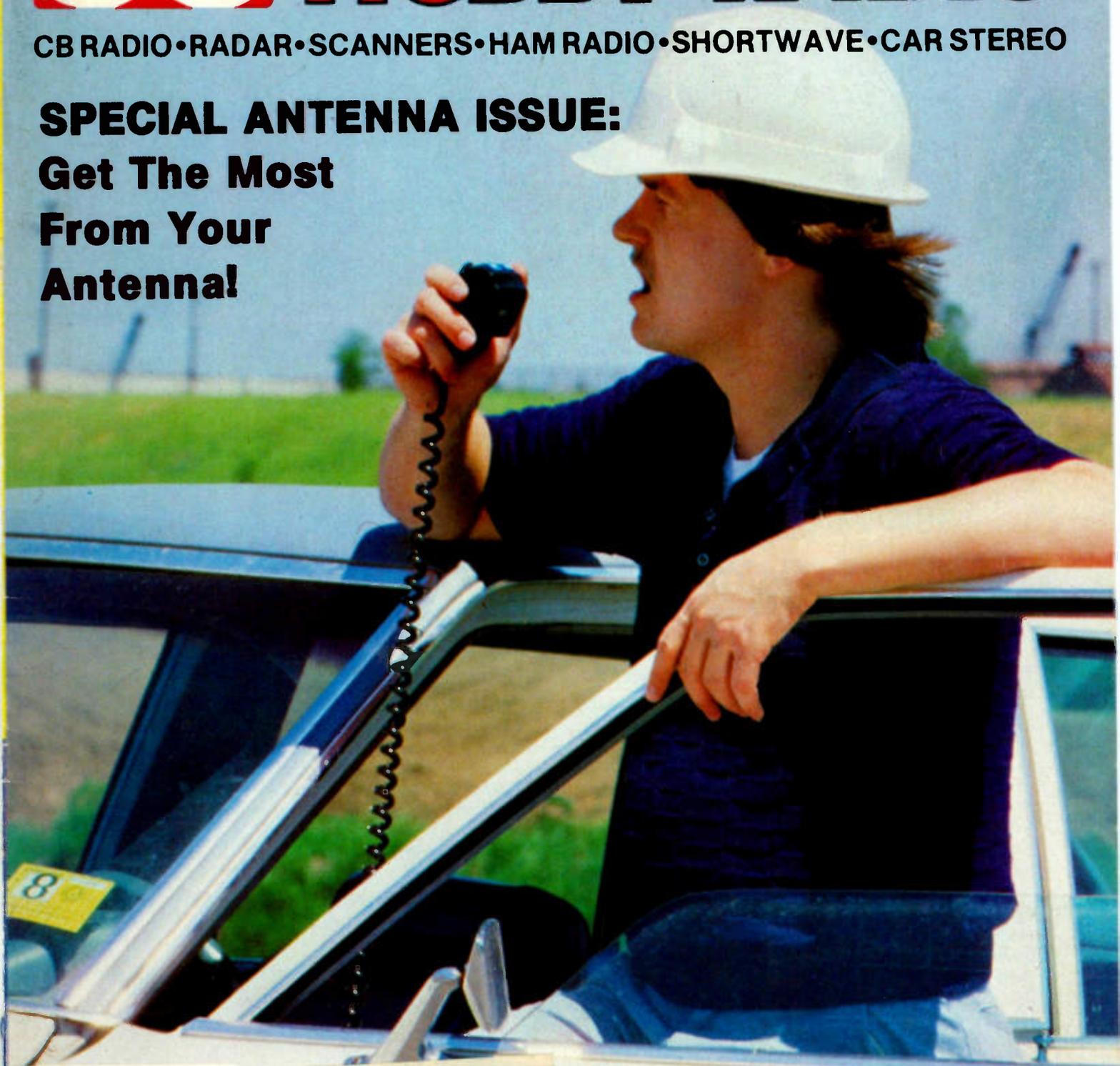
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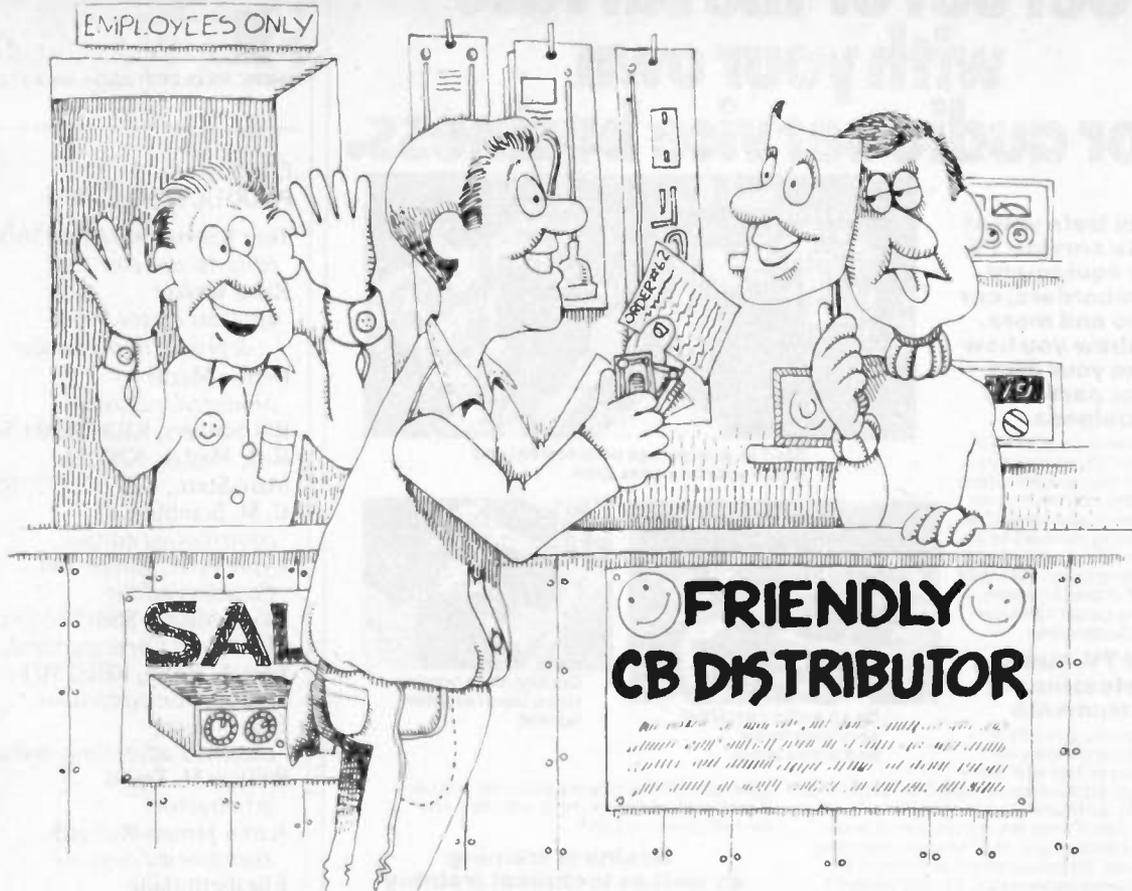
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VOLUME 20 NUMBER 9

SEPTEMBER 1980

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YOUR CB NEWSPAPER

SEPTEMBER 1980

Feds Give Back Seized Linears!

More than 400 citizens band radio "boosters" and amplifier kits valued at \$250,000 were ordered returned by Federal Judge Frank Seay to Brewer Labs Inc., a Porter, (Okla.) electronics firm accused in 1978 with illegal manufacture and domestic sale of the devices.

The order, which came after nearly nine hours of testimony, requires that the devices be sold only to a "legitimate foreign market" approved by the Federal Communications Commission.

Presenting a check and correspondence, owner A.B. Brewer told the court that an electronics firm in Japan has agreed to buy the equipment as soon as it is released.

Seay ordered the release within two weeks.

The boosters and kits were seized in December 1978 from the Brewer plant, southwest of Porter, and have since been in the government's custody. The company was found guilty of mailing, shipping and selling illegal power amplifiers and fined \$15,000.

But A.B. Brewer was acquitted of grand jury charges stemming from his company's actions, and given permission to recover the seized items set for release in July '79.

A civil suit was filed late last year by the government seeking a permanent injunction against Brewer. Assistant U.S. Attorney John Osgood said the govern-

ment had agreed to release the items only if assured of "adequate lawful disposition" or a foreign sale.

"This (injunction) is what the government had asked for and I am pleased we got it," said Osgood after the order was announced.

Only the prosecution presented its case, bringing to the witness stand seven witnesses, including three FCC electronic engineers from Dallas and Washington, D.C., offices.

Defense attorneys Alex Kennedy and Ronald Mook, both of Tulsa, agreed after the government ended its case to provisions for the release of the equipment.

John Robinson, supervisory electronics engineer from the Washington FCC office, testified that the CB boosters were outlawed in April 1978 and limited sales of such devices to foreign markets.

Robinson said "boosters cause distortion and harmful interference to other communication systems, including television, radio, police, emergency and aircraft communications."

Linears seized from the Brewer plant had reported power outputs ranging from 50 to 650 watts, said Larry Brock, an engineer at the FCC District Enforcement Office in Dallas.

There was considerable discussion about the amplifier kits, called TX 1000, which Brewer claimed were manufactured as radio transmitters or "ham" radios.

Robinson, however, challenged this claim.

"We tested one sample of the TX 1000 in our laboratory and we were unable to make it function as a transmitter. However, the equipment operated as an amplifier. It came with everything needed to make it function as an amplifier," Robinson said.

In Seay's order, Brewer Labs was ordered to cease manufacture of the kits and boosters for domestic sale. The Porter firm will be regularly examined by an FCC agent and a probation officer, as provided for in the order.

A 1,400 Mile Fender Bender

Fred Montgomery never laid eyes on Larry Freeman, who's one of the few people you're likely to meet up in the Rocky Mountains at Soldier Summit, Utah.

But Montgomery, a Colerain Township (Ohio) policeman, heard Freeman's pleas for help.

Seems Larry, who runs a little service station and towing business in the Rocky Mountain pass called Soldier Summit, needed some help after a minor automobile accident.

But the telephone was dead at Freeman's place, so he called for the Utah State Highway Patrol by CB radio.

The only problem is, nobody heard Freeman in all of Utah.

They heard him in Colerain Township, Ohio; Wisconsin; Georgia, and aboard a Coast Guard cutter off Alaska.

Now, Ed Scovill mans the communications computer for the Utah State Highway Patrol at Orem. Orem's a small town tucked between Provo and Price, in North central Utah and not far from Spanish

Fork—the nearest watering hole to Soldier Summit.

Colerain's Montgomery and the other fellas from other parts of the country started sending computer messages that Scovill picked up on his computer.

The police computers are linked over the National Computer Information Center (NCIC) that keeps the law in touch all over the place.

Montgomery sent his message over the Regional Computer Information Center in Cincinnati. It went to Columbus and then to Salt Lake City and then to Orem in about three minutes.

Officials can't be sure whose message got to Scovill first, but he sent thanks and good luck to all the city slickers who helped and got hold of that Coast Guard cutter, too.

The whole mess was caused by "skip."

Well, it came out all right. Scovill got the call at 9:43 Utah time and had a highway patrolman at Freeman's place about 12 minutes later. Wasn't anybody hurt, just a little old fender bender.

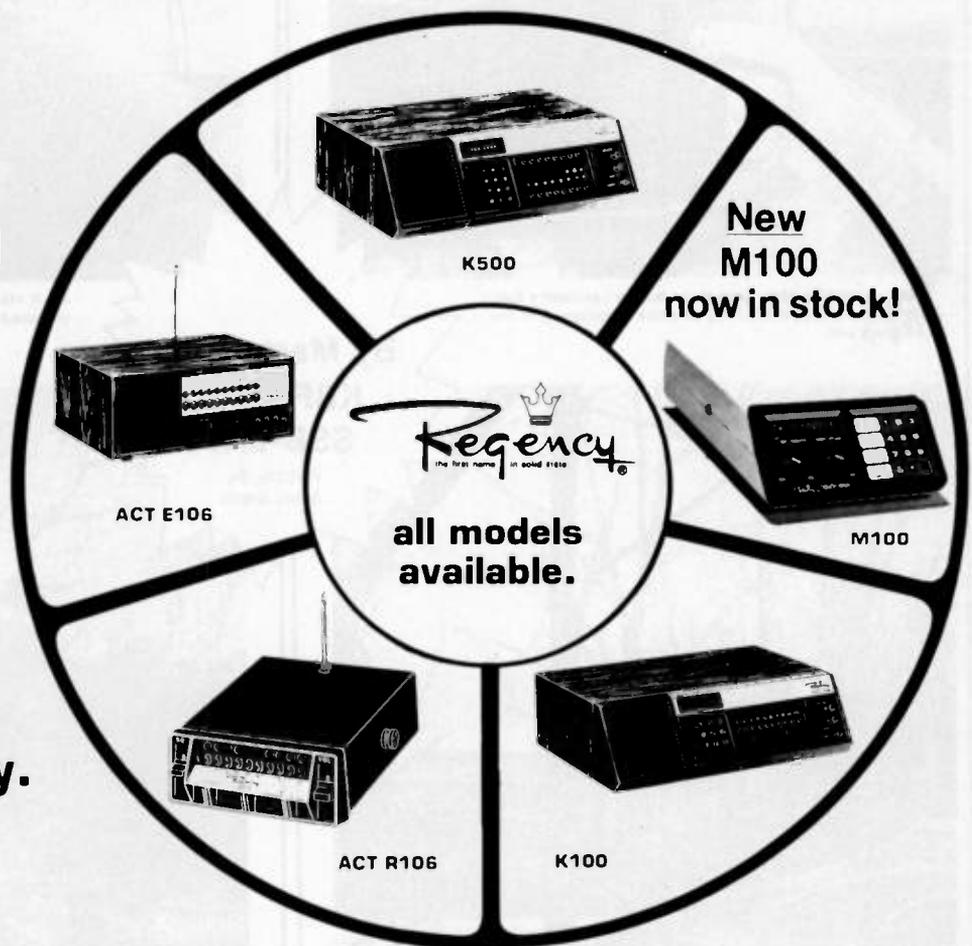
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CIRCLE 117 ON READER SERVICE CARD



Two chromed tuning rings make tuning Lamtech's Bandit a lead pipe cinch. They vary the inductance of the antenna coil.



All it takes to tune Lamtech's Bandit is a twist of the chromed tuning rings.

**By Marc Stern,
KBFS-8072
SSB-0A71**

Photos By
Marc Stern



After tuning, Lamtech's Bandit should look like this (of course, the position will vary with the vehicle), with both rings together.



American Antenna's new magnetic mount with their new fiberglass antenna attached. It, too, is designed for easy tuning.

**SPECIAL ANTENNA
FEATURE**

GET THE MOST

FROM YOUR

CB ANTENNA



Many times in your CB life you run across the need to retune your mobile's antenna (whether you've got it mounted on your recreational vehicle or four-wheeler makes little difference, it still has to be done.)

And you're not alone, other operators have to do it too, and sometimes more often than you'd think—especially when giving a new mobile antenna a workout.

It's not one of life's particularly happy times, is it? Most often you have to either run back to a CB shop because your SWR meter isn't working or you have to go over to a friend's house. That can be a pain in the neck, especially if it's a nice Saturday and you want to do something else.

Or, if your meter is working, you have to trek out to the driveway and do the work yourself. And this isn't an easy chore, especially if it's hot and there's a pennant race going on back on the *tube*.

So, okay, you're out there (or at the shop or your friend's) and what do you notice? Probably you see the SWR reading is way out of whack from the last time you did it. The cause could be in the coax, in the connection at the back of the rig, or in the antenna and rig themselves.

The next step you'd probably take is to run a diagnostic check of the rig itself with a field strength meter to see if you were putting out a signal (if you had

one—if not you could just check your rig's meter to make sure a signal was getting out.)

With today's solid-state rigs it's unlikely the unit itself is the cause.

Next you'd run an impedance check on the line and with a volt-ohmmeter to see that it measured 50 ohms. If that's okay, the place you'd suspect is the antenna.

So now you begin the slow process of adjusting the antenna for its best match. With your SWR bridge in place at the back of the CB rig and all the coax jumpers and cables connected correctly, the process begins.

First you lower the stick, then you raise it, then you set it back where it was. Then you lower it

again and then you raise it a little again, and a little more. Each time, though, you have to run back and check your SWR meter reading (unless you've got a friend helping).

Now, to your dismay, you find you have to begin shortening the antenna whip itself. So now you have to dismount the whip and begin snipping off pieces. A little snip here and a little snip there. It's really a pain in the neck, but it has to be done.

And, all the while you have to remount the shortened antenna and begin all over again.

Now, why should your SWR

change? It could be many things, but most likely it's a combination of age and weather or it could be just plain neglect. If you can, you should check it out at least once every other month. It could also be corrosion setting in in your antenna, which *can* happen, especially if you live near the beach.

It can also change from the normal everyday driving you do. The bumps and ruts in the road can weaken even the strongest locknut or set screw (if you have a steel antenna).

Now, what about fiberglass antennas? The corrosion and age just mentioned could likely be the cause of a radical SWR change. So, you'll have to go back and retune this type of antenna, too.

Most people don't know why an antenna works the way it does. Seems like most folks just install it on the mobile, tune it up and then forget about it unless the rig starts performing poorly.

A CB antenna is designed to resonate at a frequency of 11-meters. Most CB whips are called half-wave antennas.

Scientists speculate a radio wave looks something like a wave you see at the beach. It rides up and down with a positive side and a negative side. They further speculate that both parts (the positive and negative) carry the same electrical information. So, rather than needing a full-wave antenna, you only need a half-wave because it carries all the electrical information the other half does. Thus, most CB antennas are based on the half-wave principal.

Even a quarter-wave ground plane antenna also relies on the half-wave theory. It uses the antenna stick itself for one-quarter of the wave and your mobile for the other quarter, thus it becomes a half-wave and is able to work.

(If you were to have a full-wave CB stick mounted on your mobile it would have to be more than 36 feet long, a little much for your



With its tuning slide in place, this is how the American Antenna fiberglass stick looks.

average car or R/V.)

The trick to making your antenna work correctly is to have it put out all the power it can at the frequency on which it was designed to operate. Your antenna has to resonate at the specified frequency.

If your rig, coax and antenna are unmatched things don't work correctly. If they're not resonating at 11 meters, then, like the strong splash of a rock in a pond, part of the wave created will eventually come back and swamp the original wave. (Trying throwing a rock in water and you'll see what I mean.) This return wave is called a standing wave and it can be reflected back into your CB system if the system isn't correctly matched up—thus the need for



Tuning the American Antenna fiberglass stick is a matter of sliding a sleeve up and down to vary the capacitance (voltage) of the antenna.

an SWR reading. This is the standing wave ratio, and the higher above 2 to 1 it is on a meter, the more out of whack things become. If it's too far out of line then your signal could just come back and burn up your RF finals, something you DON'T want to happen. (Don't worry though, it would take a really bad mismatch to do this.)

Okay, so now you can see why a correct matchup is so important. It's also important from a performance standpoint. The higher your SWR, the more standing wave the outgoing signal has to cut through and the poorer your performance. (Watch a motorboat going through a heavy oncoming chop and you'll see what I mean. You need more power going out to overcome the



Putting the Wilson V-1 vertical together is a snap with its lengths of tubing. All it requires is inserting the tubes and tightening the clamps.

power coming back at you.)

Now, with that short course in how an antenna works behind us, it's time to focus on a couple of new developments which help cut the drudgery of retuning (or tuning up) your antenna.

As I said earlier, on most antennas you have to physically shorten or lengthen a steel antenna stick or you have to trim the coil in a fiberglass. The reason for this is to make your radio wave see the correct electrical antenna length for proper performance.

With a steel whip, you are essentially just changing the physical length of the antenna. Its loading coil determines its basic electrical length. The stick is like the frosting on the cake.

On some antennas, like American's *K-40*, however, not only are you adjusting the length of the stick, you are also changing the antenna's inductance characteristics slightly (there's a small magnetic field set up in the loading coil on any ground plane antenna. It's a function of radiating electrical energy being applied to the coil.)

Or take a fiberglass whip such as the *Firestik*; because it operates on an entirely different principle, it needs the copper



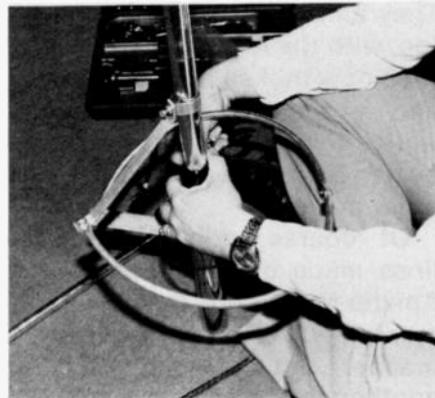
One of the first assembly tasks on the Wilson V-1 vertical lightweight is assembling the loading hoop.



really don't need ground planes (as do steel whips) for proper operation. Because they are much like capacitors, they work quite well. Your mobile acts as one-half of the capacitor, when combined with the outside world. Stretching a point, you could say such an antenna needed a "plane" to work. But, why do fiberglass marine antennas work well without proper ground planes?

So what are the new developments? They're antennas from a new company called Lamtech and another from American Antenna, makers of the *K-40*.

CB whips can be divided into three categories: base-loaded, center-loaded and top-loaded. The chief difference lies in where



Inserting the coax cable fitting is a snap on the Wilson V-1 vertical. Its light weight and compact size make it ideal for campers and trailers.

the manufacturer puts the loading coils. Most fiberglass antennas are top loaded. And all of them provide good to excellent performance.

Fine examples of base-loaded antennas include the *K-40*, the Turner line, the AEF line, the Lamtech *Bandit* (more about this particular one later) and many others; including antennas made by Hustler, Hy-Gain, Antenna Specialists, Antenna, Inc., and Radio Shack. Avanti also offers a good line.

Center-loaded antennas are made by Hustler, Radio Shack and many other manufacturers. They all offer good performance and raise the ground plane for better performance. (continued)

loading coil running through its entire length. Rather than operating just by length and inductance (with the appropriate ground plane), it operates as a capacitor. One half of it (plate, if you will) is the antenna itself and the other half is the outside world and mobile itself. (A capacitor stores and discharges alternating current and is made up of two plates and a non-conducting insulator between them.)

As an aside, fiberglass sticks



At a campsite, assembling the V-1 is as easy as this. If you've collapsed the antenna pieces into one another then all you have to do is extend them and tighten the clamps.

Top-loaded antennas are made by just about every manufacturer. They all offer good performance, too, with the loading coils on top. K-40 now makes a good antenna and a good magnetic mount, while other top-loaders are made by Hy-Gain, Firestik, Pacer and other makers.

Of course, don't forget the lines made by Shakespeare and Anixter-Mark. All the antennas mentioned here offer good performance. But, at one time or another they might well need to be tuned, and you have to go through all the adjustments with all of them in one way or another.

A novel tuning arrangement is used by the *Bandit* by Lamtech of Holland, Ohio. When you first take it out of the box you notice something different about it. All you have to do is put the antenna stick into the base. But, then you notice two chromed rings and grooving around the base of the antenna.

Those rings, I learned after reading the information that came with the antenna, are the way you tune the antenna. They guarantee low SWR across all 40 channels. They even guarantee covering the new sideband channels when they become authorized.

After hooking the antenna up

to my mobile, I ran some checks with my meter and it turned out the antenna was easy to tune (a snap, really) and didn't require locking and unlocking of a set screw. Just a twist of a ring and back inside to key the mic and take a reading.

The SWR readings came out very low, just as the literature said they would.

How they do this is interesting. As I noted earlier, most base-loaded antennas (this is a base-loaded model) have their loading coil in the base. And most consist of a single coil.

However, the *Bandit* has three coils. The top two are for the tuning rings, while the bottom acts as a ground.

Now, as I noted earlier, when you key your mic switch you send an electrical signal heading toward the antenna. When it hits the loading coil a funny thing happens. Not only is the signal stepped up to frequency, it also starts to generate a magnetic field (inductance).

The top two tuning rings vary this field so you can tune the antenna up quickly. They do this by changing the inductance of the coil.

This way, too, the impedance of the antenna always stays at 50 ohms, right where it's supposed to be if you get a 1 to 1 match. Of course, it can vary slightly, too, if you settle for an SWR reading that is higher than 1 to 1.

Altogether, it's very easy to use this antenna. And, it may be the thing of the future. If you look at the May S9 "On the Counters" column you'll see that Valor Enterprises of West Milton, Ohio, is also offering a very similar tuning arrangement.

Now, when it comes to tuning up fiberglass whips, it's sometimes a pain in the neck. If you take your average stick, you may have to do cutting, peeling and snipping and then resealing and re-covering. And, if the SWR is still too far out you have to do it all over again.

Well, American Antenna may have come up with the answer to this problem. Its beauty is also in its simplicity.

To tune their new fiberglass antenna all you have to do is slide a plastic sleeve up and down the upper part of the antenna stick.

With this method, you no longer have to remove the antenna tip; slice into the stick's outer shield; peel back the layers and expose the loading wire; trim a turn or two off; lay the wire back flat; close the shield and reinstall the antenna tip. It's really easy.

What the sliding sleeve does is vary the capacitance of the fiberglass antenna. As was explained earlier, this stick itself acts as one-half of a capacitor and the move up the stick raises the voltage. When you move the sleeve down, you lower the voltage.

These antennas, too, can also be equipped with magnetic mounts, which also make them use more of the car for their grounds.

The result is they are very quiet antennas and perform very well.

American's development, too, could be the harbinger of things to come, too, although no other antenna has yet appeared on the market with quite this type of tun-



Leaning against a four-wheel-drive truck, this is what the Wilson V-1 vertical looks like fully assembled.

ing system.

The SWR readings given by the K-40 fiberglass stick, when it was equipped with a magnetic mount, were all very low, too, indicating the whole system was working at peak efficiency.

Let's stay with antennas for a while longer, but move away from mobile antennas to base antennas. These are super for recreational vehicles, campers, or trailer campsites.

The Wilson V-1 vertical is the whip we'll be looking at first. Its performance puts it right up there with other permanent base antennas, but there's a real difference—this one's a lightweight which breaks down for easy storage in your R/V, and goes up in five minutes or less.



One of the first things you should do before you put up your antenna is insert the coax. It makes things lots easier.

When you first receive this antenna, you'll notice it comes shipped in a very sturdy package. You'll also notice that if you follow instructions you'll have no trouble at all getting on the air pronto.

In no time at all, you'll find the ground plane hoop together, along with its brackets and clamps. This is the basic part of the antenna and stays together all the time.

The rest of the antenna consists of five pieces of aluminum tubing which fit together, one on top of the other. They are held

together with sturdy clamps supplied by the company.

There are, of course, a number of lightweight antennas from most major makers. To find others, for instance, try your local Radio Shack store, or Shakespeare or Avanti. Their whips perform very well.

There are two ways you can store the Wilson V-1 in your recreational vehicle (camper, trailer or motorhome). You can break it down, leaving only the base section together (about 5 feet long), and then reassemble it when you get to your campsite.

Or, you can collapse it within itself. It makes a self-contained package which can easily be stored out of the way on the floor of your R/V. All you have to do when you get to your campsite is run it up by sections, making sure each piece stays roughly 4 inches into the piece below. When it's fully extended, it's a full 5/8 wave antenna.

Since it is loop-loaded (base-loaded) you don't need any radials. This feature makes it quite a compact unit.

All you need is a sturdy base piece of mast (roughly an inch) and your stick will be up. Make sure, though, the base tubing is sturdily anchored. Put it on a board with a piece of piping attached and then drive your vehicle onto the board. This antenna is so light it shouldn't need guying. (The same goes for any of the vertical lightweights.)

What about operation? Once you're off and running, it's pretty easy to tune up. I'd suggest attaching the antenna coax early on. It will make things much easier.

The impedance on this antenna is commendably low, and if you have to retune it, since it's so light, you can take it down and readjust the sliding top piece very quickly, although you may not have to.

This antenna, which weighs only five pounds, can take up to 2 kilowatts of power, so it

shouldn't burn out. It covers the complete CB frequency spectrum, and, in fact, extends slightly over the band edges. So, when the new sideband channels become operational you won't need a new antenna.

The V-1 has a gain of 3 dB and the signal pattern is omnidirectional.

One suggestion I'd like to make: slightly lubricate all the shaft pieces with a nonconducting petroleum jelly. It will make them go together much more easily.

One of the best features of this particular antenna is that when you get home from your campsite you can either use it for your home base station or break it down and put it away. Since it is



Raising the vertical is an easy task. Its light weight makes it ideal for campers and trailers.

aluminum it should need very little care and feeding.

Aside from the many other fine antennas on the market, this one seems to be a fine addition to any system. It's also relatively inexpensive.

Antennas, as most CB'ers know, are the most important part of a good system. Your rig's quality makes no difference if the antenna just isn't up to snuff. A poorly adjusted antenna means your signal won't get out as well as it could.

A few manufacturers have finally made it easier to adjust antennas. One of the earlier easy-

adjustment antennas was from Pacer and its adjustment was easy and quick, but the new improvements make adjusting your antenna even easier.

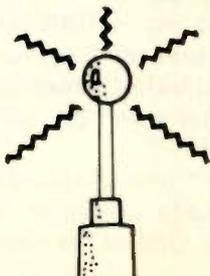
It has been said by some people that you can make a window resonate and use it as an antenna (especially if it has a metal frame), and that's true, too, but you need very expensive, specialized equipment to do it. Radio amateurs call them antenna tuners.

But, with new antenna developments coming along, you don't have to invest all kinds of money in an easily adjustable CB stick. All the antennas mentioned in this article are inexpensive and they all perform well. You can have super performance for modest cost, which is a plus for most of us these days.

There will probably be more antenna developments coming along in the future, and we'll keep on the lookout for them. In the next couple of months we'll show you how to cut your own antenna for the CB frequency and what it takes to do it. We'll also offer some other antenna advice. If you have any questions or comments or ideas you'd like to see here, pass them along to us at S9. We'll be glad to look at them and share them with other readers.

One last little suggestion before we go QRT. When you're putting up any new antenna at your base station, try and make sure there's an in-line SWR meter included in the lashup.

This way you'll be able to tell instantly if there's something wrong with your system. This might also be a good idea for your camper or mobile home, too, when you are going to be at a campsite for an extended length of time.



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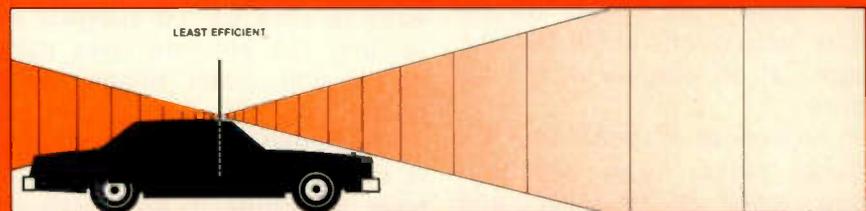
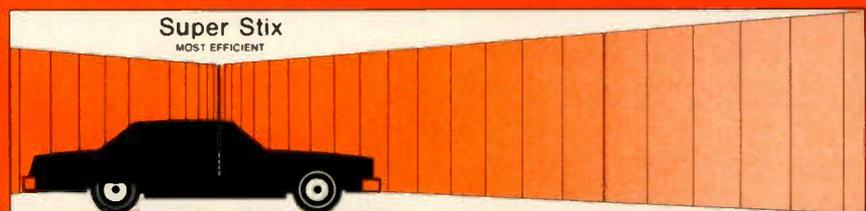
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coming events

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Bowling Green, Kentucky March of Dimes CB Jamboree, September 21. Held at the Southern Kentucky Fairgrounds. Sponsored by the Bowling Green-Warren County CB Radio Club, Inc. For more information contact the Bowling Green-Warren County CB Radio Club, Inc., P.O. Box 376, Bowling Green, Kentucky 42102

Mexico, Missouri 11th Annual Coffee Break, September 21 at the 4-H Center. Trophies, prizes and refreshments. For information contact Robert M. Miller, Route 4, Mexico, Missouri 65265, or phone (314) 581-2203

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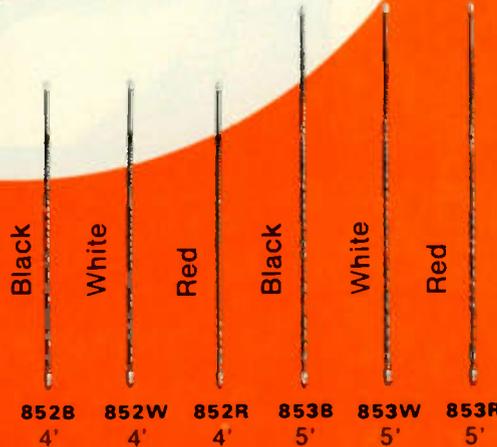
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★ ★ BUILD A 6-ANTENNA ★ ★ MASTER CONTROL CENTER

Use It For Switching From One Antenna To Another And To Accessories.

by Uncle Ned



1. All the parts required for this project are available at local Radio Shack stores or local electronic parts supply houses.



2. Seven holes are required in the back plate for the coax connector plugs—one master output and six accessory inputs.

CB is fun. That's why we're here. But one of the most satisfying aspects of CB radio is experienced only by those who know how to gather together a few odds and ends of electronic parts, solder them together, and end up with a functioning piece of equipment.

This particular project is simple and the basis for a whole range of related projects. The parts are all common and can be found at your local electronics supply house or surplus store. The kit we built came to about \$25 (or less) in parts, and we assembled it easily in less than three hours of unhurried work. We call it the All-Purpose Antenna/Accessory Command Post.

The command post is a multi-position rotary switch which is able to select from any one of six output lines and feed that line to a single input. The input in this case is the antenna *output* of your transceiver, while among the possible output loads which you might choose to connect would be a standard vertical omnidirectional antenna, a more specialized directional antenna on a

3. The single plug at the far left is the master output. A short length of coax cable connects this plug to the antenna input of your mobile or base transceiver.



rotating mast, a dummy load, an RF output meter, etc.

We fit our command post into an off-the-shelf 3x5x4 accessory box. Parts layout is in general noncritical, but since you will be working with RF wavelengths, exposed wire connections should be kept as short as possible to minimize inductive coupling between conductors. The same holds true for the length of wires used for interconnections and the way in which you arrange them. A rat's nest

of wires not only looks unsightly, but worse, it is a prime candidate for cross-coupling and interference between lines.

Future articles will focus on how to build simple but accurate pieces of test equipment which can be connected as accessories to the command post. In anticipation of this, we went to the effort of using RG 58 shielded coaxial cable for our hookup wire, and of specifying connectors which were balanced for a 50 ohm im-

★ SPECIAL ANTENNA FEATURE ★

pedance line.

The only tools you'll need are a screwdriver, a small adjustable wrench, a drill motor and a set of drills, a metal file, and a soldering iron. A scroll saw with a metal-cutting blade is handy but not required.

Begin by laying out the holes and cutouts on the metal box. You will need one hole in the front of the box for the switch shaft and seven holes in the back of the box for the six output and one input connectors. You may wish to have a single rectangular cutout on the back of the box rather than the seven separate holes. If so, scribe out a rectangle about 1½ inches high by about 3½ inches wide; this should give plenty of room to clear the output connectors arranged in two rows of three each and the one input connector off by itself.

Either drill four locating holes (for the cutout) and then take out the rectangle with the scroll saw, or drill all the individual connector holes and the hole for the switch and then clean up the edges with the file.

We used BNC receptacles largely because they are much less expensive than their UHF counterparts. Also, when this project was finished we wanted it to take a permanent place on our CB shelf. RG 58 is a lot more flexible and easier to handle

large enough to clear the connectors without touching; and the phenolic board is attached to the wall of the box.

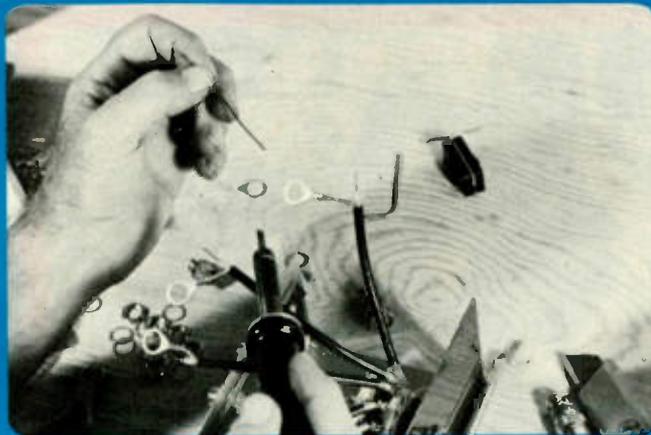
The switch is a ceramic, two-decade, single-pole, six-position rotary switch. Be sure when you buy this item that you specify a non-shorting switch; it makes a difference. Two-decade means that there are two "wafers," or two separate switches, laid out flat and ganged together to make a single unit. You will want all shields to go to one wafer and all center conductors to go to the other. The common terminal, in this case what we are call-

keep track of where you are is to start at one end of the switch, connect one wire at a time, go from switch to BNC connector and label each BNC connector when you get there, numbers 1 through 6.

Keep the exposed parts of the center conductors as short as possible, and make your solder joints neat and shiny. Too much solder is bad because it can short out to another nearby connection, and rough solder joints usually indicate a poor bond.

You will need to use a solder lug to attach the coax shield to the stud of the BNC receptacle. Recall that the shield connects to the outer casing of

5. Short lengths of shielded cable should be used to wire each plug to the switch.



4. Each plug should be kept electronically isolated from the others. This is why a non-conductive fiber board is used to hold the case of each plug.



the BNC connector.

When you get to the BNC connectors, try the following sequence: Push the BNC connector through the hole in the phenolic board until it seats; solder the shield onto the end of the solder lug and slip the lug over the stud; follow that with the lockwasher and the nut; tighten down the nut until the connector is firm; finally, solder the center conductor to the center post of the BNC receptacle.

That's it. Just a few more things and you're ready to roll. Screw the switch to the front place, fit with a knob, slide the chassis into the cover, and button it up. Before you get on the air, it's a good idea to check the wiring with an Ohm Meter to make sure that you didn't wire up any unintentional shorts.

The command post is done. To get from the command post to the back of your transceiver you'll need a jumper cable. The length depends upon how far away you want to set the two (we chose 18 inches as more than ample for our set-up), but in any case you'll need a male BNC on one end—the one that goes to the com-

than the larger RG 8 which we have feeding our roof antenna.

The outer casing of the BNC receptacle is connected to the shield of the incoming coax when it is mated with its plug. If all seven BNC connectors were to be mounted directly to the back of the metal box, their shields would all be shorted together. This is definitely a bad thing. Rather, the BNC receptacles are mounted onto a sheet of phenolic insulator board; the holes at the back of the box are made

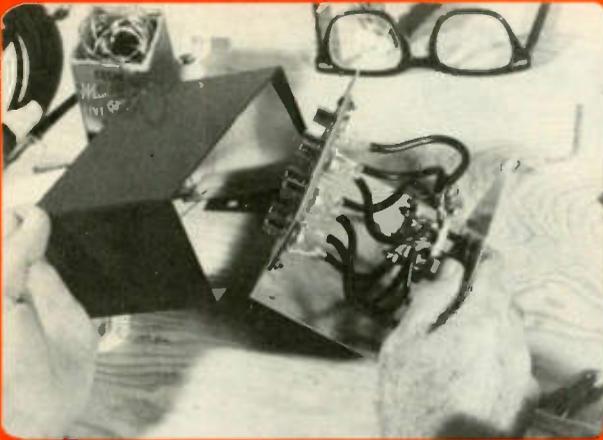
ing the input is almost always offset a little bit from the rest of the terminals. This makes it easy to locate and gives a starting reference for locating the rest of the terminals.

It is really unimportant which terminal is connected to which output connector (except, of course, for the terminal which goes to the *input*), and vice versa. However, you will probably want to label the switch positions and their corresponding output jacks on the back panel. An easy way to



6. The entire switching assembly is mounted inside a metal case. Be careful not to let any of the wires touch.

PARTS LIST	
Qty	Description
1	Minibox, Cowl type, 3"H x 5"W x 4"D, LMB No. 453
1	Switch, rotary, ceramic, 2 deck, 1 pole, 6 position non-shorting on each deck, CTS No. T215
7	Receptacle, BNG UG 1094/U
1	Adapter, BNC to UHF, UG 255/U
1	Plug, UHF, PL 259
1	Adapter, to use RG 58 coax w/PL 259
1	Plug, BNC, UG 88/U
1	Phenolic (Micarta) insulator sheet, 1/8" thick x 1 1/4"W x 4 1/4"L
4 ft	RG 58/U coaxial cable, 50 ohm
1	Knob, pointer, ALCO No. PKP 1109



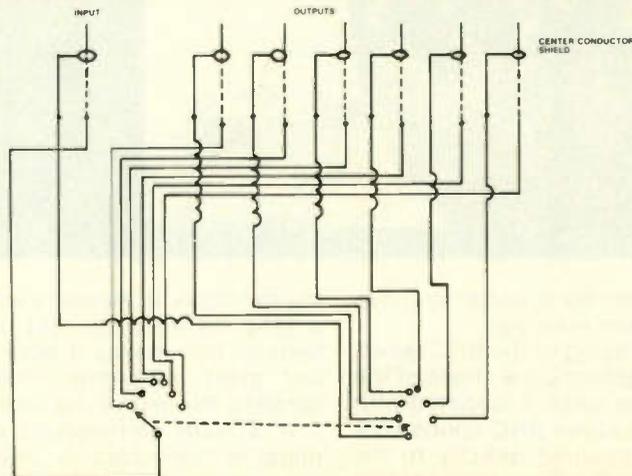
7. A metal lid is required to further shield the wires and plugs from any outside electrical interference. What may have seemed complicated in the beginning has turned out to be a very simple soldering project.



8. The switchbox is shown in use beside a base station. Your own markings may be added to the face plate later.

mand post—and a male UHF connector on the other end—the one that goes to your transceiver. If you use RG 58, as we did, then you'll also need a metal adapter insert which fits into the rear of the UHF plug and makes it able to accept the smaller cable. That, and a one-piece UHF-to-BNC adapter to go from your antenna lead-in to one of the six positions on the command post, is all you need.

You're done. It's been easy, you've got yourself a handy little piece of equipment, and maybe you've learned something—that it's *fun* to "do it yourself." Suddenly a whole new world of CB enjoyment has been opened for your exploration.



9. Check your wiring with this diagram by tracing each wire from plug to switch.



TOMCATTIN' WITH TOMCAT!

ACROSS THE CHANNELS WITH S9'S EDITOR
TOM KNEITEL, TOMCAT/SSB-13



A MATTER OF JURISDICTION? As we have all seen, the FCC lays claim to controlling much of what the nation has going for itself in the way of telecommunications—radio transmissions are only one of the things which come under its somewhat broken wings. But Uncle Charlie also has his talons into cable TV authorizations, into *Ma Bell's* tariffs and operations, telegrams, and all sorts of other little things. But, through all of this, it is absolutely fascinating to note that the FCC sees its own jurisdiction quite differently in respect to many of the things within its far-flung empire.

For one thing, CB'ers have long complained about the FCC's attempts to stifle their operations; sometimes spelling out that certain things cannot be said over our frequencies; other times telling us that we can't talk to other licensed CB'ers in distant areas of the nation. We have said that such regulations violate our Constitutional rights to free speech—the FCC apparently does not agree with that theory. Yet—has the FCC ever given a violation notice for anything which has been said over one of the landline telephones under its jurisdiction? Have they told *Ma Bell* that landline calls cannot be made over 150 miles?

Indeed, just recently the public appealed to the FCC to make "unsolicited" phone calls illegal—those are the annoying calls (usually) dialed by automatic equipment which attempt to solicit funds for charities or try to sell you some product, or give you a political pep-talk. The FCC decided that most of the calls which would fall into that category lie within its "restricted" jurisdiction in that they don't cross state borders and they were therefore staying clear of the problem because "the constitutional questions involved in such an effort to regulate free speech and the limited effectiveness such an effort could be expected to have."

Try to fit that quote into the format of CB radio regulations and enforcement and you'll note that there is a somewhat inconsistent flow of hogwash

being fed to the public somewhere along the line. Y'see, the FCC reports that the Communications Act says that they only control telephone calls which cross state lines—with radio transmissions it's a hogwash of a different color; let's forget that of the approximately 4,550 comments which the FCC received from the public on the topic of unsolicited phone calls, 4,500 people said they should be stopped! The 45 folks who wrote to say they should continue to be allowed all represented business, industry associations, telephone companies and other groups with a vested interest in these efforts!

In the meantime, freedom of speech via CB radio has a somewhat different interpretation! And be sure to watch your language on those long-distance landline calls!

UNCLE CHARLIEMAN RIDES AGAIN

ON THE OTHER HAND, never let me hear anybody say that CB'ers aren't innovative and that the FCC has no sense of humor. Case in point, one Albert F. Merrill, of San Jose, Calif.

According to the FCC, on two occasions in 1977 the FCC licensing facility at Gettysburg (Pa.) received requests from Albert Merrill for a duplicate copy of Amateur Extra Class license WA1LZV. That callsign had once been assigned to a fellow named John L. Merrill of Dover, N.H. When the FCC checked their files, however, they learned that the callsign was no longer current and that it was not in active use.

But, says the FCC, by early 1978 Albert Merrill learned that John Merrill's current callsign was N1JM. Not only that, it appears that the FCC even sent Albert Merrill a copy of John Merrill's license. In any event, the FCC alleges that Albert Merrill was "transmitting on the Amateur band and identifying himself as John L. Merrill . . . and using . . . the callsigns WA1LZV and N1JM." The FCC was also not particularly overjoyed about their feelings

that Albert Merrill may have used John Merrill's name in an effort to obtain a duplicate copy of his ham ticket.

The FCC, by one means or another, say they monitored transmissions Albert Merrill was making, and they claim that they were aware of the "unlicensed" status of the operations. Finally FCC "engineers" decided to "approach" him with their charges. At first, Albert Merrill (they say) "denied making the transmissions." Apparently later he admitted making them "but gave a false identification by using his deceased father's credit cards."

"After further questioning" by the FCC's crack engineering team the FCC reported "Merrill gave his true identity, admitted that he had impersonated John Merrill to obtain a duplicate copy of his license." A definite *black mark* regarding these events was placed against his name in the FCC's computer so that future retributions might be made—*Uncle Charlieman*, aided by his faithful Model 1984 computer *never* forgets!

In March of 1978, Albert Merrill applied for a CB license. Unfortunately (for the FCC) the computer was programmed to send rockets up into the air and flash red warning lights only in the event Albert Merrill might ever attempt to make contact with the agency in relation to ham radio. Somehow the computer issued him a CB license bearing the callsign KBGM-6942; a monumental goof and something for which the computer was later probably severely reprimanded, forced to issue itself a Show Cause notice, pay a monetary forfeiture, confiscate its own memory banks, and stay in its room for the entire weekend. The stupid computer had totally failed to take due note that Albert Merrill was supposed to be persecuted and harassed by the FCC *regardless* of what he wanted from the agency. Folks, I mean to tell you, this is a *heavy* agency—*Uncle Charlieman's* computer is still programmed to issue the S.S. TITANIC aviolation notice for improper station identification if and when it ever arrives at an American port.

What eventually did the computer in and caused it such heartache was Albert Merrill himself—obviously there's no escaping from *Uncle Charlieman*, he's got all of us by the baluns because he knows that once hooked on communications we all must cross that damned computer's path countless times over the years. Maybe Albert Merrill figured that when it issued him a CB license he had beaten the system—the American dream, to outwit a computer! So, armed with what was apparently unjustified self-confidence, in September of 1978 he applied for a Novice Class

ham ticket. That sure pulled the ol' cork! I am almost certain that at the very instant his request was fed into the FCC computer the teletype machines at the CIA started clattering and frantically ringing bells, at least 200 fighter aircraft of the Tactical Air Command were put on Red Alert, and the President was immediately summoned to Camp David for high level conferences.

Merrill was promptly dragged before the bar of justice to answer the FCC's "charges"—let's face it, he had the nerve to apply for a ham license after the unhappy events heretofore described and then he got the FCC to issue him a CB license when he used his own name!

FCC "Administrative Law Judge" Joseph Chachkin must have realized that his mission was clear cut. He "dismissed" Merrill's excuse that he "did not know that it was improper to use another person's callsign and to operate without a license." The Judge noted that his "unlicensed operation and impersonation of an FCC licensee on and off the air were willful and intentional violations, not accidental." And, further in his landmark decision, he pointed out that Merrill's "repeated misrepresentation of his identity to the Commission to obtain a copy of another person's Amateur Extra Class License, plus his other action to further his scheme to operate without a license made it clear that the misrepresentation of his identity to the FCC was willful since he knew he needed a license to operate."

Reflecting upon the seriousness of this incident, and in the great tradition of jurisprudence (FCC style), Judge Chachkin concluded that Merrill's "misconduct" was not only sufficient cause for the FCC to deny him a ham license regardless of whether or not he had passed the test for that license, but also to revoke the CB license which had been issued to him. Although the FCC didn't contend that there was anything irregular about the manner in which Merrill had applied for his ham or CB licenses, nor anything contrary to the way in which he had used his CB license, the Judge said that his decision was "mandated, since any lesser sanctions would undermine the integrity of the Commission's processes." Apparently the fact that Merrill had earlier confessed his switched identity stunt racked up no points nor earned him any sympathy from the FCC.

Tell us about integrity, Judge Chachkin!

It sure doesn't look like the FCC is even remotely aware that the hairbrained "decisions" handed down by their little kangaroo court go a long way towards making the agency look the fool; that they

only cause the public to perceive the agency and its regulations/enforcement with suspicion, outright contempt or (at best) as a pathetic example of an impotent bureaucracy which has been disconnected from reality and its ability to either serve or lead the public—but which is still deluding itself with outrageous and bizarre window dressing displays such as Merrill's "trial."

Is it wrong for someone to ask the FCC to provide a duplicate copy of another person's ham ticket by misrepresenting himself as the licensee? Is it wrong to transmit without a license, using the callsign of another? *Yes! Of course it is*—just like it is against FCC regulations to be an Outbender, or use a linear, or to use a CB handle without also using your CB callsign! All of these things are "illegal," but they are hardly on a par with, say, the World War II Tokyo Rose broadcasts—and even Rosie eventually got off the hook! How long does the FCC expect Merrill, and the many hundreds of other unfortunates who have been condemned by the FCC's two-bit "justice" system for various "rule infractions," to do penance, to be persecuted and harassed, to be denied licensed access to the use of the public air-

ways? There are persons who have committed serious felonies who have been punished and restored to their place in society in less time than the FCC's evil and inept computer is willing to take to remove its fatal black mark from the names of hundreds upon hundreds of citizens.

I really think that it's wrong, morally—possibly legally too—for the FCC to place citizens in perpetual across-the-board limbo for being guilty of relatively minor "offenses" where the only measurable damage which was done was to the FCC's elusive and fragile "integrity," which (I might add) I suspect is small enough to easily fit inside a newt's navel with enough room left over to accommodate the aggregate intelligence of a battalion of "FCC Administrative Law Judges" impersonating real judges!

Tomcat!

CB Usage Tips From S9

(CUT OUT & PLACE AT OPERATING POSITION)

Preferred & Designated Channels

- Channel 8 Agricultural operations
- Channel 9 Emergencies and travel info.
- Channel 13 Maritime and RV's
- Channels 16 to 18 Single Sideband only
- Channel 19 Trucks/Vehicles in transit*
- Channels 31 thru 40 Single Sideband Only

*Note that in many areas there are also 1 or more additional channels designated and/or normally used for in-transit vehicles, often Channels 10 and/or 12. This is especially true in metro areas and their suburbs where Interstate Highways are on 19 and secondary roads such as parkways are on alternate channels. Base stations are requested to avoid using all area in-transit vehicle channels in order to permit their full, free, unobstructed and exclusive use by in-transit vehicles.

Stations using power mikes should be cautious that their audio levels are set to a level which will not cause voice distortion, over modulation, or splashover on adjacent channels.

Single sideband stations now generally operate on Channels 16, 17, 18, and 31 through 40, although this may vary in specific areas. Stations using standard AM transmission are requested to avoid use of local Sideband channels, likewise Sidebanders are requested to confine their transmissions to those channels established locally for their use.

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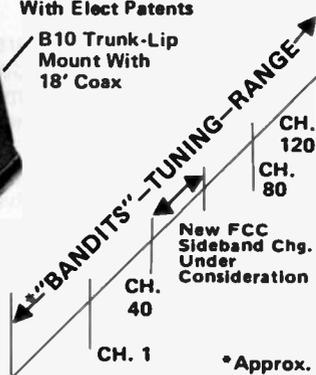
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ON THE SIDE

S9'S MONTHLY COLUMN FOR SIDEBANDERS

BY BILL SANDERS / SSB-295, KW-5304, KBAH6794

FIXEM-UP: GETTING NATIONAL NUMBERS

Single Sideband operators don't use "handles." Instead we identify by special sideband numbers. Those many readers who write to us asking how they may obtain a set of these numbers are advised that we recommend obtaining a set of permanent national numbers from the SSB Network, which is the largest, most prominent, and oldest Sidebanding organization in the world. There are no dues! We suggest that ALL Sidebanders now avail themselves of the opportunity to become part of the vast network—future sidebanders, new sidebanders, and even experienced old-timers with "this many" local and regional numbers. A self-addressed stamped envelope sent to The SSB Network, P.O. Box 908, Smithtown, N.Y. 11787, will bring you information on how you can become a vital and important part of the national Sidebanding unity movement, and at last obtain a number which is part of the uniform international Sideband identification system, recognized throughout the world.

WHAT'S HAPPENING

The FCC appears to have had second thoughts on some of their original concepts in regard to the proposed exclusive SSB frequencies between 27.41 and 27.54 MHz. One of the things which would have gone a long way towards setting this whole thing up as something separate, apart, and rather different from regular "CB" was the idea that it would *not* actually be a simple extension or expansion of the CB service—such as when they opened up channels 24 through 40. RM-3317 had suggested that the exclusive SSB frequencies be established under a totally different set of guidelines; the FCC's original thoughts on this included the possibilities of offering some special operator test and a license which was different from a regular CB license in order to operate there.

CB Magazine's brainstorm (RM-3299), on the other hand, sought basically to just tack some additional

channels to the existing CB band and let it go at that. Because of the disaster which took place when CB was expanded from 23 to 40 channels, most of the active Sidebanders were genuinely afraid of such a prospect. They felt that any new frequencies should be handled on a separate basis.

Most recent FCC thinking, after taking into the consideration the costs and amount of effort involved in establishing the new frequencies with special licenses and under a totally new sub-service, is to back away from the idea. At press time it seems that they are looking towards the cheap and dirty approach of simply tossing some additional frequencies onto the high end of the band and forgetting about setting the exclusive SSB frequencies up as "something special." This despite the fact that most of those who would get a shot at participating in the (formerly) proposed exclusive SSB sub-service would have gladly paid some reasonable (or maybe even unreasonable) fee to help the FCC defray the costs of setting it up and administering the tests. Unfortunately the FCC had made such a mess of things the last time they attempted to establish a fee schedule that a federal court told them to stay clear of such matters in the future. Maybe Congress could allocate the necessary funds, but I wouldn't look upon that as a realistic expectation.

This does create somewhat of a problem and it seems that somehow most of us had that funny feeling in our bones that little good would come from RM-3299 with their sissy AM-oriented approach to the potentials of getting a real Sideband service on the road. Too bad that a more gutsy approach had to have been dragged down by RM-3299. Because of CB Magazine's inane RM-3299 it may be that the sharply honed edge of exclusive SSB frequencies will be dulled and blunted to the point where they are far less than any of us had wanted or hoped for.

The official FCC Notice of Proposed Rulemaking, the document which seeks comments from the public,

may possibly have been issued by the time you read this. It is a document which will cry out for all serious Sidebanders to comment upon. We want exclusive frequencies, we want them to be something which will offer us *far* more than the prospect of being a couple of channels or frequencies hurriedly tacked onto the regular CB service above Channel 40. We waited a long time to get our own frequencies, lots of people worked long and hard to try to set it up "right." Let's not let a bunch of Johnny-come-lately people who obviously know and care nothing about Sideband drag us down into the muck and mire with the likes of their ill-conceived RM-3299! We may not get another shot at setting this up, so be sure to offer your comments to the FCC on their Notice of Proposed Rulemaking when the time comes for your action in the matter. Tell them what you want and what you *don't* want!

Brian Rueger, SSB-8092A, presently in San Jose, Calif., and with the USAF, has been very vocal on the subject of what might take place if and when these new frequencies are opened up, regardless of whether they are a sub-service or a simple tack-on. Like many of us, Brian wonders about how Outbanders may view the "legalization" of 27.41 through 27.54 and if they will stay and become "legals" or if they will just shift upwards. He also has some concern about the way AM-Outbanders will approach exclusive SSB operators above .410.

Mostly Brian would like to see some new approaches to operating by the general Sidebander and views the possibilities of shuffling along to new frequencies as a good point for all of us to stop and re-examine our own practices and values. There is something in what he says, and he view it as sort of being "born again" now that the opportunity to pass a landmark may be upon us. As a typical practice which Brian suggests we all seriously consider looking at closely is the whole usage of Q-signals. Basically he doesn't think much of them and would like to see their use discontinued on our fre-

zat a big 10-4? Oops—sorry about that!



Here are some Sideband cards which arrived here recently. Denney, 9-A-677/SSB-418A, is from New Hampshire and he shares his QSL with his XYL, Jackie. From Everett, Wash., Jim, SSB-399A, displays a heavy Chevy cruising over an antenna tower—we always thought the Chevy "SS" meant Super Sport; guess it means Single Sideband! Andy and Jan, SSB-296A, of Michigan also share a QSL. Earl Turner, SSB-15A, from Hudson, N.Y., is a regional control station in the SSB Network and spends many hours on the air making friends.

quencies; much preferring to use and hear plain and simple English type conversational language. He sees no particular advantage in asking another operator to QSY when you might just as well ask him to "change frequency." He also notes the frequently-encountered confusion when a Q-signal means one thing to one Sidebender and another thing to someone else (such as QRT which means "signing off" but which so many Sidebanders think means "standing by"). Brian says that when you're standing by, then why not just say so! and when you're signing off—say so!

Brian feels that the Q-signals are "irrelevant" for voice communications and suspects that many other Sidebanders somehow realize this but are having a difficult time attempting to pry themselves away from their old habits. One example he cites is when he hears an operator telling a new Sidebender how to talk, suggesting that they "talk like they're speaking on the 'phone or face-to-face" and then they amaze and astound the new operator with a dazzling quickie course in how to use the Q-signals!

Other comment on the Q-signals comes from Eddie Lee, SSB-1430A, of Amarillo, Texas, who notes that not only does he hear "QRT" being practically murdered over the air, but that the felony is compounded by comments he hears such as "QRT-QSX and standing by." Eddie, in fact, begs us to again—and again, and then still *again*—mention that QRT does NOT mean "standing by." That it is the equivalent to 10-7, that it means "going out of service and off the air," and that it never meant anything different from that to a good operator. He says that "standing by" is QSX or QTX and when it's mixed together with QRT it really sounds funny. Eddie says that the SSB Network has done an "excellent job" in helping the Sidebender communicate on a coherent level and that it's unfortunate that there still seems to be so much confusion with some of the language.

So it really amounts to do we want to figure out the "proper" usages and all agree upon which Q-signals mean what, or should we just agree to scrap them (as suggested by Brian Rueger)? If you've got any thoughts on the topic (and keep them down to 100,000 words or less), send them along—iz-

ACCEPTED FOR AFFILIATION

The International Sideband Radio Operators (Inc.), headquartered in West Virginia, has been accepted as an affiliate of the SSB Network. A chapter of the SSB Network in the British Isles is being established by Tony, SSB-001. Local and regional sideband groups wishing to be considered for group affiliation in the SSB Network are advised to contact the group at P.O. Box 908, Smithtown, N.Y. 11787. Mark the request "Attention: Diana, SSB-16." Enclose a self-addressed stamped reply envelope.

Individuals seeking a membership application in "Sideband's Own" international organization, the SSB Network, should also send a stamped self-addressed envelope to them at that same address. Regardless of how many other groups to which you may presently belong, we feel that being part of the national Sidebanding movement calls for being an active supporter of this well established group. If you read Gus Howard's story in this issue you can realize how important it is for ALL Sidebanders to show a united front.

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PHONY FRONTS

At the beginning of 1980 Capital Radio went on the air from the "Republic" of Transkei and has been heard by a number of North American DX'ers on 7160 kHz after 2300 EST despite ham interference. Transkei is recognized as a country only by the South African government (and some DX'ers) because it is about as independent from South Africa as the Sioux Indian Reservation in South Dakota is from the United States (we understand the latter has its own TIS transmitter on 1610 kHz). Meanwhile, Capital Radio also poses as a private, commercial operation. They *do* have commercials, but 51% of the station's financial control is in the Transkei government's name.

Capital Radio, in effect, replaces Radio Clube de Mocambique which was controlled by the officially government-owned South African Broadcasting Corporation—until Mozambique obtained its independence from Portugal. South Africa is by no

means the only regime operating through commercial fronts. The French and Germans have been doing it for years. In fact, when the Nazis invaded Luxembourg during World War II, they promptly put their top English language propagandist, William Joyce ("Lord Haw Haw"), on commercial Radio Luxembourg.

Probably the most successful commercial, soft-sell front ever was Radio Clarin in the Dominican Republic which, under the direction of one Rudy Espinal, served as a very listenable International mouthpiece for Joaquin Balaguer's administration. This continued until 1978 when Balaguer finally lost an election. In 1979 Espinal was named International Broadcaster of the Year by the Association of North American Radio Clubs. At that time he was talking about taking a position with La Voz de Venezuela—the million watt government owned BCB station which is supposed to come on from the Paraguana peninsula.

For operations like Clarin, and Capital Radio, it is absolutely essential to establish their image as commercial, privately owned, and nongovernmental. Whatever propaganda is broadcast must be well hidden and very subtle—but all this changes in times of crisis. Immediately after the 1978 DR elections, while Santo Domingo's right-wing generals still had hopes of changing the results, Espinal blasted away at President Carter, the American press, and of course the opposition candidate. Similarly, in September 1974—just before Mozambique was granted independence—Radio Clube de Mocambique suddenly became "A Voz de Libertade" and attempted to foment a right wing, Rhodesian-style coup. However, no one has ever established just how much control the South Africans had over "A Voz de Libertade"; nominally, the transmitters had been "seized" by a rebel group.

We mentioned that Capital Radio had been logged in North America despite the Amateurs on 7160, but this spring they switched down to 3950 kHz which will make reception a little more difficult. Ironically, 3950 is also Amateur territory in this hemisphere and conditions on that lower band are not good because of the current high sunspot



FIGURE 1. Headquarters of the former Radio Clube de Mocambique. This station was controlled by the South African broadcasting Corporation until Mozambique was granted independence by the Portuguese.



FIGURE II. SABC QSL.

count. Meanwhile, if you want to monitor South Africa's official commercial service, try SABC's "Radio 5" on 3250 kHz. It's often heard there around 2200 EST. That's an even lower frequency, of course, but there's much less interference than on the ham bands. Therefore, SABC on 3250 serves as a pilot signal for more difficult 3 MHz reception from lower Africa. If SABC is still good at 2300, try for Capital Radio.

CLUBS

From time to time we have referred to things that have occurred in organized DX listening, and we have also been queried by readers as to which clubs they should join. The following are all worth their annual dues (most of which covers the cost of their publications) and, unless otherwise indicated, all publish monthly.

NORTH AMERICAN SHORTWAVE LISTENERS CLUB, 16182 Ballad La., Huntington Beach, Calif. 92649. A well known group publishing a useful and interesting monthly newsbulletin covering SWBC and Utilities. Dues \$14 in USA, \$15 in Canada (U.S. funds only).

NEWARK NEWS RADIO CLUB, this old-line club has a nice newsletter which we see from time to time at S9; however, since their newsletter does not contain a return address we can't tell interested persons how or where to join the NNRC.

CANADIAN INTERNATIONAL DX CLUB, 169 Grandview Ave., Winnipeg, Manitoba R2G 0L4 (\$13 Canadian). CIDXC'ers are constantly debating what should and should not be covered. As a result their *CIDX Messenger* covers just about everything, including a section by your editor about, more or less, clandestine broadcasting. Always something happening here.

INTERNATIONAL RADIO CLUB OF AMERICA, P.O. Box 21974, Seattle, WA 98111 (\$16.50). Covers Medium Wave only. Their *DX Monitor* is published 34 times a year—weekly during the BCB DX season. Another club with plenty of action.

NORTH AMERICAN SW ASSOCIATION, P.O. Box 13, Liberty, IN 47353 (\$14). Their publication *FRENDX* provides superior general shortwave broadcast coverage.

SPEEDX, P.O. Box E, Lake Elsinore, CA 92330 (\$14). Has an excellent utility section as well as good SWBC coverage.

CLANDESTINE NOTES

Some asides and additions to Tom Kneitel's special pirate report in the May S9: The operator of NYC's *Guerilla Radio* has gone on to become a comparatively well-known underground poet. Unfortunately, discretion prevents us from reprinting

the name of his most famous work. Meanwhile, those messages from *Radio Swan* to the Bay of Pigs beachhead were strictly phony. The people behind this adventure were just marking time while they hoped to persuade President Kennedy to send in the marines. After the plan had completely collapsed, it was decided to downplay the whole affair as a resupply mission for guerillas in the Escambray mountains. A *Radio Escambray Libre* was put on the air, presumably from one of *Radio Swan's* backup transmitter sites, with equally phony messages for those virtually non-existent guerillas. To make sure this cover broadcast was heard on such short notice, *Radio Escambre Libre* used 7000 kHz—the lower edge of the 40M Amateur band.

LOOKING FOR TROUBLE

Speaking of edges, international broadcast stations are not really supposed to transmit at the boundary frequencies of SWBC bands, but many Communist and some third world nations do so regularly. For example, Radio Tirana (Albania) has been blasting into the Americas for years on 6200 kHz. Yet the USCG persists upon using that same channel for its North Atlantic ice patrol network. Even if Tirana weren't on 6200, perfectly legitimate stations on 6195 would splatter the edge of the band.

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CIRCLE 66 ON READER SERVICE CARD

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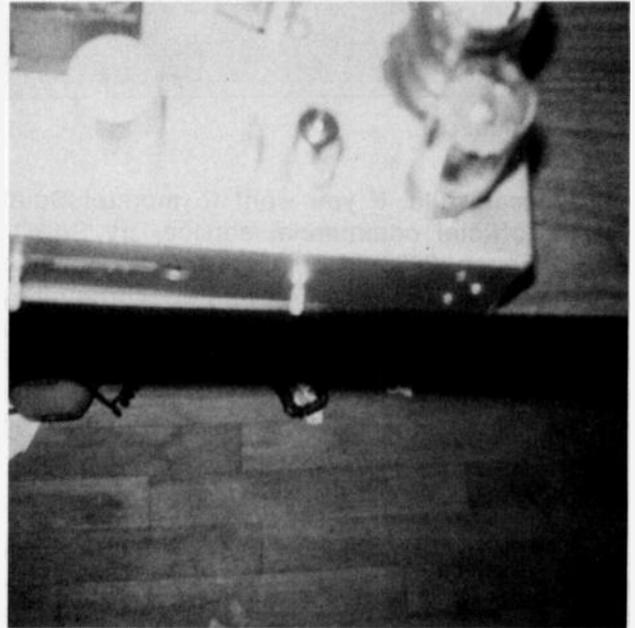
By Al Muick, President of FREE RADIO CAMPAIGN-USA

The Free Radio Campaign-USA (RD 2, Box 542, Wescosville, PA 18106) is a group of people (including listeners, broadcasters, and others) who support the idea of "Free Radio," that is, unlicensed "personal" broadcasting. While S9 does not encourage persons to broadcast without the proper license, we do support efforts to convince the FCC to set aside special frequencies for this purpose, and we do encourage listeners to seek out these interesting stations on their receivers, as many will QSL. For more information on FRC-USA, or for a sample copy of their newsletter, send 50¢ and a stamped self-addressed envelope to the above address. A subscription to the FRC-USA newsletter, *The Wavelength*, is \$5 per year (\$7.50 overseas). Make all checks payable to Al Muick. FRC-USA is a mail drop for the majority of North American "pirate" broadcasters, and reception reports can be sent to the stations in care of FRC-USA.

Folks in Chicago by now you should have a new FM pirate on your airwaves! The station is COHO Radio and it follows a hard and moderate rock and roll format. The frequency is variable, but check in the area of 90 MHz, VHF-FM. They will be using a power of 300 watts!

Keeping with VHF-FM—WNYC-FM is audible with a power of 10 watts on 93.9 MHz in Upper Manhattan and they cover most of the "big city" area with their small power due to their high elevation. They are on the air at night (mainly on weekends) and use a variable frequency oscillator as their basic unit with a tunable PA final amplifier which follows the oscillator. Their equipment can operate over the entire range of 88-108 MHz VHF-FM. Don't confuse with the legit WNYC-FM!

Another VHF-FM pirate is WLND Akron/Canton, which operates out of those two cities in Ohio. They are on an approximate frequency of 87.5 MHz, but refuse to disclose their power as they are in the process of "upping" their output. The Program Director is Dave Miller; Sports Director is Chuck Cross; and the News Director is Mark Allenton.



Here's a fly's eye out-of-focus view of the transmitter at station WSLD. It runs a cool 12 watts from somewhere on the east coast of the U.S.A. and is on 1615 kHz.

They have news at the beginning of each transmission (Newswatch 87) and a sports talk during that program at 4 PM Eastern Time. Their format is "talkradio" and music, sort of "free form" as they put it. The talk hosts are Dave Miller and Chuck Cross and the Music Host is Al Scott with his program "Music Box." The transmission times are 4 PM and 6:30-9:30 PM Eastern Time. This is truly one of the more organized pirates we've yet to see!

Moonshine Radio from California has sent us a Newsletter (their last edition) and they say that Moonshine Radio will now be concentrating mainly on 49 meters shortwave. They say that 41 meters will still be used but very sporadically. They should be on the air again shortly, being off due to remodeling their studios and transmitter room. They are more than happy to QSL reports and the information required is the date, time (GMT), the frequency to which you were tuned, signal quality, programs heard, etc. That is the requirement for most radio stations (legal or otherwise) anywhere. All of the above stations may be contacted through the FRC-USA. Return postage is always a good idea, and is a minimum courtesy.

A letter received from ex-WDAB DeeJay, Ron Kay, says that WDAB has given up pirate broad-



RADIO HEARTLAND

THE BEST IN THE MIDWEST

Dear _____

Thanks for your reception report.
We confirm the station you heard was Radio Heartland, operating on:

SAMPLE
7325 KHz (49.95m)

Time: _____ Date: _____

Further reception reports or comments on our program are welcome!

Free Radio Campaign - USA
R.D. # 2, Box 542
Wescosville, Pennsylvania 18106

CHIEF ENGINEER

casting due to a letter from the FCC (it was sent to FRC HQ). They will never return WDAB to the air, but may occasionally have a program relay over another pirate. Ron gives his reason for quitting as the fact that the operators have commercial licenses (Ron has a 1st Class Phone) and they don't want to lose them. The DeeJays are professionals and have opened up a cable FM radio station in Daytona Beach. It was fun guys! Anyone who'd like to hear what they sounded like can obtain a 2-hour cassette from the FRC-USA; drop us a line and an SASE for more information.

WSDL, solid gold radio, is able to be heard on 1615 KHz any time of the week that they choose. They operate with a homebuilt transmitter and they have an approximate power output of 12 watts into a longwire antenna. They are on the east coast of the USA, and since those travelers' information stations get out with two watts, WSDL has very little trouble giving them competition. As usual, they can be reached through the FRC.

Scuttlebutt has it that Radio Pluto broadcasts from the southeastern USA on 6960 KHz with 250 watts output power. Programs consist of Rock Music, comedy and commercials. Check Saturdays around 0300-0500. This information was via "Johnny Kumquat," station owner and chief operator.

Looking for professional jingles for your Free Radio station? Ones that won't run you a fortune in the green stuff? Well, Zoo Studio Producties is for

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LAST MINUTE LOGGINGS: WQXQ on 1554 kHz from N.Y. City sent a QSL card signed by "Wild Bill." The QSL wasn't much to look at but it was happily accepted. "PRN" in New England still holding down 1615 kHz—sounds like maybe they're running a bit more power these days. We understand that the low powered RADIO POKI, 8350 kHz, in Hawaii ran a special program last May in which they read an entire issue of S9 Magazine over the air, at least that's what they claimed. Anybody who hears this 3½ watt station can QSL via FRC-USA. Station WOOF on 7425 kHz sent a lucky listener a QSL based upon seeing his reception of the station mentioned in a publication! WARG (6990 kHz) and KVHF (6420 kHz) both still quite active with music programming. An anti-Castro pirate being heard with powerhouse signals on 7088 kHz.

(continued)



This is

Quadro Radio

DATE:

POWER:

TIME:

QRG:

SINFO:

(continued from previous page)

Some of the European publications directed at Free Radio now include:

FREE AIRWAVES, P.O. Box 319, Edenbridge, Kent, England

RADIO SCENE, c/o Michael Tew, 21 Wellis Gardens, Westbrook, Margate, Kent, England CT9 5RG

RADIO FILE, c/o Contemporary Communications, 7 The Promenade, Swansea, West Glamorgan, England

RADIO FREE FLYER, P.O. Box 35, Wellington, Telford, Salop, England

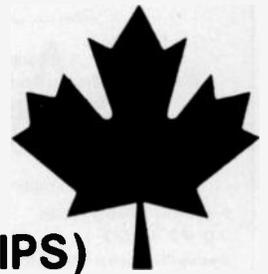
SOUNDWAVES, P.O. Box 110, Oppington, Kent, England

FREE RADIO WAVES, Flagstones, West Heath Lane, Sevenoaks, Kent, England

FREE RADIO MAGAZINE, Postbox 10252, 1001 EG Amsterdam, Netherlands

These publications specialize in offshore and land based pirates, primarily in Western Europe. The publication issued in the Netherlands is in the Dutch language. Those in North America who are interested in obtaining information on receiving copies of any of these should contact them directly and ask about their current prices. Be certain to include an International Reply Coupon (IRC) with your request for information, and tell them *S9/Hobby Radio Magazine* sent you!

CANADIAN NOTES



By Lynn Tyler,
XM17-294 (HOT LIPS)

Canadian readers: Send items to Lynn c/o S9 magazine, 14 Vanderverter Ave., Port Washington NY 11050.

CHILLIWACK SMOKEY MONITORS ASSOCIATION

The Chilliwack Township Detachment was the first RCMP Detachment in all of Canada to monitor a CB base station on a routine daily basis. S/Sgt. R. V. Alcock, I/C Chilliwack Township Detachment started the Chilliwack Smokey Monitors Association, known as Operation Trident, in 1977. Operation Trident is involved in preventative policing, enforcement and public relations.

S/Sgt. Alcock found the workload on his office staff becoming much too great to simultaneously man the FM radio system and the CB radio properly. On Jan. 17, 1977, he called together a group of CB'ers within the Chilliwack area who had base stations in their homes, and asked them if they would assist him and his staff by monitoring Channel 9 for emergency calls directed to "Smokey Control."

The Monitors are not part of the RCMP, but they do have the support and backing of the Chilliwack Township Detachment. They undergo a security screening by the RCMP and instruction and training in emergency radio procedure by the Association personnel office; they have a probationary period of three months or less, depending on ability.

On July 12, 1977 the Chilliwack Smokey Monitors Association became a registered, charitable society through the Societies Act in Victoria, B.C.

MEDDLING WITH MOBILES

Did you know that the RCMP can stop a car sporting a CB antenna and legally ask the driver to produce a GRS license? This directive was received by the RCMP from the DOC a little over a year ago. Does that mean, if you are ambling down the street carrying a walkie-talkie, the RCMP can stop you and also ask for your license?

3's and 8's for now.

**"Maybe it
will go away."**

The five most dangerous words in the English language.

American Cancer Society
We want to cure cancer in your lifetime

Tomcat's Mailbag

By S9 Editor
Tom Kneitel



Tomcat answers some of his more interesting mail in this column from time to time. Address your letters to Tomcat's Mailbag, S9 Magazine, 14 Vanderventer Ave., Port Washington, N.Y. 11050.

WHAT DO JIMMY DEAN & BILLY GRAHAM HAVE IN COMMON?

I notice that lots of stage and TV performers (especially singers) use microphones which appear to work without wires. A flexible stub, like a "rubber duckie" antenna, sticks out of the base of the hand held mike they use so I guess these are radio transmitters of some sort. That being the case, do they operate on frequencies which can be picked up on a scanner?

Charles V. Kelly, Sr.,
Mercury, Nevada

You're right, they're short range radio transmitters which run anywhere from 200 mw. to 3 watts and if you're close enough to one you could hear it on a scanner. Units used by nightclub entertainers and many TV/film production companies can actually be used on any frequency authorized for business radio purposes, although they prefer to take advantage of special low-power (and therefore low-interference) frequencies such as 30.84, 31.16, 31.20, 31.24, 33.14, 33.16, 33.40, 35.02, 42.98, 154.57, 154.60, 457.525, 457.55, 457.575, 457.60, 467.75, 467.775, 467.80, 467.825, 467.85, 467.875, 467.90, and 467.925 MHz. If more than one wireless mike is required during a performance (such as by the Village People who require 6 mikes) then a



different frequency is made operational for each individual mike (in fact 20th Century Fox can run about 20 different frequencies simultaneously). Receivers are "off stage" and feed directly into a PA or other sound/audio system. TV stations also utilize short range transmitters (often 2-way) for their own purposes including studio operations; their predominating frequencies are within the bands 450.05 to 450.95 and 455.05 to 455.95 MHz, although some VHF hi-band systems are still in use (operating on Auxiliary Broadcast frequencies). Wireless mikes have FCC call signs; some (for example) are: Sahara Tahoe Hotel (Nevada) KD6344; Harrah's Club (Reno) KF4375; Columbia Pictures KH3330; Walt Disney Productions KC7032 and KJ7398; 20th Century Fox KH9509. My files indicate that a few years

back a reader wrote to say that he took a pocket scanner to a Jimmy Dean performance and heard Jimmy "direct" on 33.14 MHz. After the show he went backstage and asked Dean to write a QSL note on the performance's program—which Dean did, verifying station KK9307. The same reader also monitored the same frequency a few months later at a Billy Graham gathering and was eventually able to get a QSL from Graham's wireless mike (KF3216). I might add that wireless mikes are also used by lecturers and square dance callers. A series of wireless mikes which are very low powered are produced in addition to those discussed above; these operate in the FM broadcast band (88 to 108 MHz) and since they operate under FCC Part 15 they don't require licenses—seldom are such units used for professional purposes.

NORTH WENT WEST

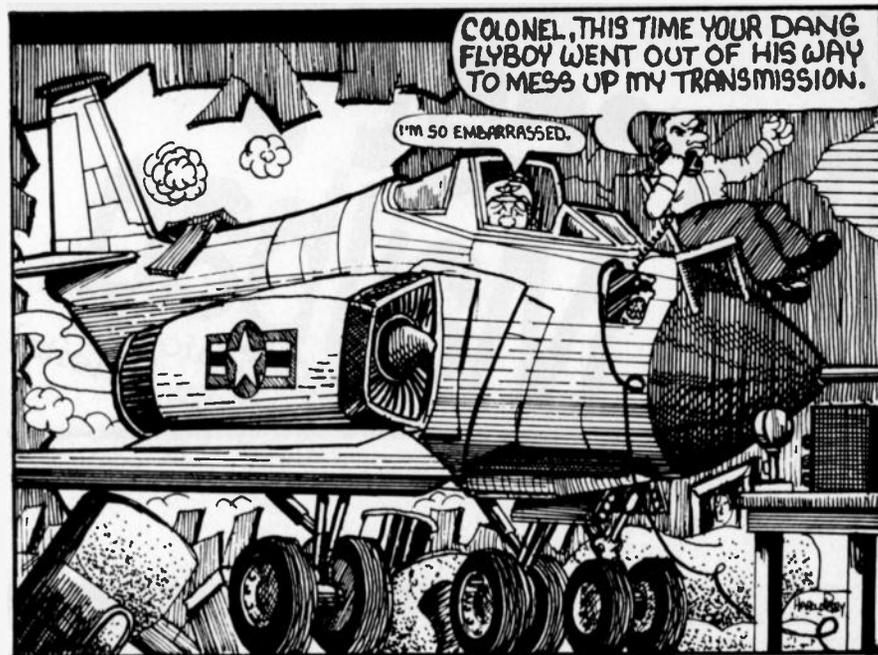
If the earth is a giant electro-magnet, then it must have a specific current flowing through it. Has this ever been measured? Also, it seems that since this magnet has been doing its thing for millions of years now it is a likely candidate for being picked as a form of terrestrial perpetual energy. It seems that by now it would have lost a great percentage of its power, yet obviously it hasn't.

Les Hirsch
University of Missouri

Although I doubt it was checked with your basic hobbyist-type meter, the electric current flowing through the planet is about 6.16-billion amperes, enough to run granny's electric blanket through at least a few thousand winters. There is a rather large power loss (going into heat) presently running at 813 megawatts. Now, you might say, "at that rate of operation it is hard to believe that this thing has been able to maintain its steam for so many eons." If that's what you're saying, you're not alone. The only reliable historical observations on the planet's main magnet were first made (by Gauss) about 145 years ago, and then updated by worldwide observations every few decades after that. What these observations show is that the exponential decay in the planet's magnetic field has a half-life of only 1,400 years. A double check of this figure was made by matching it against a hypothetical reference magnet having the same dimensions and strength. What it all means is that the main magnetic generator inside the little blob of mud we call Earth can't have been dissipating power at this rate for more than a couple of thousand years. It would seem that the present electromagnet within the planet is of relatively recent origin, or else the "old" magnetic field was somehow recharged or re-energized by some unknown event of catastrophic proportions. At the present rate of decay, in a few hundred years your Little Handee Dandee hiking compass might well need a preamplifier and a beam antenna to find magnetic North!

PUT THIS HAM IN YOUR RADAR OVEN

What are the new Ham bands which are to be placed into operation as a result of the WARC meeting in Europe? Also, I really enjoyed the story you had on listening to the USAF (June issue); here's one I heard



you didn't have listed: "FIRESIDE 3," it was monitored using SSB on 8964 kHz, but I don't have the location.

Bart "BIG BAD BART" Burdett,
Austin, Texas

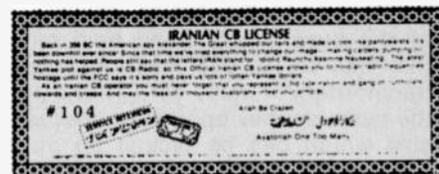
The new ham bands will be 10,100 to 10,150 kHz, 18,068 to 18,168 kHz, and 24,890 to 24,990 kHz. Your "FIRESIDE 3" is located at Shaw Air Force Base, Sumter, S. Carolina. By the way, the USAF will soon be opening up a west coast transmitter to work hand-in-hand with its northeastern "over-the-horizon" radar unit. These stations, similar to the Russian "woodpecker" which has everybody climbing the walls on the shortwave bands, apparently have a rather important tactical function and the USAF is willing to bear the squawks of those listeners who find the signals as jamming their favorite shortwave transmissions. The USAF units operate between 6 and 22 MHz but stay clear of ham and navigational safety (aero/marine) bands, also the frequencies used by WWV (and possibly CHU). If you hear the USAF so-called OTH signals and they annoy your SW reception (they sound like a powerline hum) you can write to the USAF and complain (but it isn't gonna do you any good). The "complaint department" for this device is OTH Radar Office, USAF Electronic Systems Div., (Code OCUE), Hanscom AFB, Mass. 01731.

IRANIAN CB LICENSE

Someone told me they received a copy of a fancy but far-out gag

"Iranian CB license" along with a QSL card you sent them. I understand it's even funnier and more outrageous than the "Ayatollah's QSL Card," and if that's the case, I want one! How can I get an "Iranian CB License" for myself?

Buck Williamson,
Lauderdale, Miss.



The so-called "Iranian CB License" calls upon its recipients to hold all radio frequencies hostage (since CB radio is an "American plot") until the FCC says it's sorry and pays a ransom of lots of rotten Yankee dollars. I send one out with every QSL card—anybody who wants a copy of an "Iranian CB License" can get one by dropping me a letter and asking for one; but enclose a self-addressed stamped return envelope (No. 10, 4 x 9 size so I won't have to fold it). If you don't enclose the self-addressed stamped return envelope I can't send it—if you have a QSL card send it too and I'll send back one of mine! And, yes, the "Iranian CB License" is truly outrageous—even better than the "Ayatollah's QSL Card" of a few months back (both the card and the "license" were the brainchild of Russ Walters, SSB-1, I might add).

WANTED

BY DEALERS DESIRING BIG REWARDS

Two Load on a Trunk Lid Mount...



Sure footed
and easy on
the finish!

Descriptions:

Slim, sleek profiles
Tall and straight in the saddle
at highway speeds
Black...

Two Load on a Magnetic Mount...

Hangs on
over the
roughest
trails!



Descriptions:

Double loaded to spur extra
performance and deliver a true
power match
... or white



THE TWO LOAD BOYS

LAST SEEN RIDING THE BIG RANGE

With the double advantage of base and top load multiplying their signal in all directions... power up to get over the top of nearby interferences; power down to ensure performance and low SWR.



TOUGH IN THE SADDLE ... MAGNETIC OR TRUNK MOUNTS

Two Load Magnetic clings to roof or trunk at highway speeds and under all but the most severe impacts with its 17 square inches of holding power. Its corrosion-resistant partner, Two Load Trunk Lid Mount, features spin on/off and built-in electronics.

ARMED AND DANGEROUS

Beware... The Two Load Boys are quick on the draw... known to cause sudden increases in sales.

The Two Load Boys are blazin' new trails. Ya better git after 'em if you want BIG REWARDS

Contact your Shakespeare distributor for further leads...

Shakespeare[®]

ELECTRONICS AND FIBERGLASS DIVISION
Antenna Group/P.O. Box 246, Columbia, S.C. 29202

The Shakespeare Company/Manufacturers of Communications Antennas, Marine Electronics, Fishing Tackle, Industrial Fiberglass, Lighting Poles, Wonderthread and Specialized Monofilaments, Golf Equipment, Automotive Products, Saddlery and Equestrian Accessories

ON THE COUNTERS

S9'S MONTHLY PRODUCT REVIEW

SHAKESPEARE RIDIN' HIGH

Western is in! The trend reflects a growing desire to get back to rugged individualism and the grass roots approach to life. This new attitude naturally means an increased demand for product excellence and reliability. That's why the Western theme so aptly fits Shakespeare's "Two Load™" antenna. The theme is carried in both the "Two Load" trunk and magnetic mount antennas.

The computer engineered duo-phased Two Load gallops along new trails doubling the advantages of both base and top loaded antennas. Its base loading means SWR as low as a rattler's ribs. Its top loading means big, wide open spaces range. Encased in Shakespeare's exclusive fiberglass means a reliable lifetime of performance as long as a Buntline's barrel.

The Two Load advertising campaign will be test marketed in very select CB hobbyist publications. Consumer ads will emphasize the "Big Range" capability of Two Load. Distributor ads will be designed in the form of Wanted Posters and emphasize Two Load's rugged features and sales appeal.

"Along with the Western concept," says Denny King, Marketing Manager of Shakespeare's Electronics and Fiberglass Division, "is the fact that major attitude changes are taking place nationally with regard to gasoline prices and supplies. The CB



boom we're expecting won't be primarily for fun this time. Only the best products will meet the market's critical demands."

For more details write: Shakespeare Antennas, Public Relations Dept., P.O. Box 50623, Columbia SC 29250.

Mark number 60 on Reader Service Card.

RECEIVER ANTENNA TUNER

The MFJ-959 lets you match your antenna to your CB or communications receiver for maximum signal strength. It has a 20 dB low noise



preamplifier to further enhance the received signal.

With the MFJ-959 you can switch between two antennas and two receivers. The 959 tunes from 1.6 to 30 MHz and there is a 20dB attenuator to keep those stronger signals from overloading your receiver. Coax and phono jacks are connected in parallel to let you use the type connector you prefer.

The MFJ-959 is eggshell white with walnut top and side panels and the size is 9 x 2 x 6 inches.

The MFJ-950 is the same as the MFJ-959 but without the preamp, attenuator, and bypass. The size is 6 x 2 x 6 inches and it requires no power.

They're from MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762.

Mark number 53 on Reader Service Card.



POCKET SIZED MULTITESTER

"Easy to use," "reliable," "rugged" and "economical" describe Universal Enterprises' restyled M15—a practical tester than can handle most electrical measurements in a service technician's day.

The M15 has been restyled to include bold, easy to read numerals on the scale plate and even more compact design. The M15 features include: three color coded scale plate and front panel, impedance protected OHM circuit, diode protected movement, and a one year warranty. This compact and light weight (6 oz.) tester has eight electrical test ranges: AC and DC volts, 0-15-150-600; DC milliamps, 0-150; and OHMS, 0-500K. The M15 comes with test leads, battery and instruction manual. Accessories available include insulated alligator clips and a soft vinyl carrying case.

Available at most electrical, electronic, heating, air conditioning, control, refrigeration, plumbing and appliance parts distributors. For further information contact: Universal Enterprises, Inc., 14270 N.W. Science Park Drive, Portland, Oregon 97229.

Mark number 54 on Reader Service Card.

CB RADIO/S9 FIX'M-UP

TAKE ADVANTAGE OF THESE USEFUL FREE SERVICES:

EVERYONE FOR A.M. "UNIT NUMBERS"?

As you tune the AM channels these days you'll note that a great many CB'ers are now using "Unit Numbers" in addition to or instead of "handles." Many people think "handles" have pretty much *had it*, as they are heavily duplicated and all-too-often difficult to copy through the chatter on a crowded channel, also, a growing number of operators tend to think of AM "Unit Numbers" as sounding a lot more professional and less "cutsey" than "handles." There are other advantages too, all of which makes the idea of "Unit Numbers" on AM channels sound even more appealing. For more information on AM "Unit Numbers" and an application for receiving or registering your own AM "Unit Number," send a self-addressed stamped return envelope to Z-Tech, P.O. Box 70-FXM, Hauppauge, N.Y. 11787. AM "Unit Numbers" are a strong trend as CB Radio continues to evolve, expand, and mature.

SIDEBAND ID NUMBERS?

They don't use "handles" to ID on the sideband channels, stations use "Sideband ID Numbers." If you're an active Sidebander you may already have several local or regional group ID numbers—if you're a newcomer or a future Sidebander, you may not have any Sideband ID numbers at all! Whether you have a dozen numbers or none at all, it's easy and important to you to get yourself a set of *national* ID numbers from the *SSB Network*, and become a vital part of the growing national Sidebanding movement by affiliating with the oldest (1964) and most prominent national sideband group. Old timers, newcomers, and future Sidebanders should obtain information and an application for national *SSB Network* numbers by sending a self-addressed stamped envelope to: SSB Network, P.O. Box 908-X, Smithtown, NY 11787.

40th Anniversary Super Saver



**2
year
subscription
for just
\$12**

Our Company Is Forty Years Young

And the boss is going crazy. He's just instructed our subscription department to give a full year's bonus on every order that comes in this month. That means a full two year subscription for just \$12.

You save \$12 right there. What's more, you save a whopping \$36 off the newsstand price. So unless you're as crazy as he is, you'll rush your order in immediately. Before he wakes up and becomes rational.

But don't delay. It looks like he might be getting coherent before too long. Use the handy order cards for extra quick service.

The Radar Column

by "Jammer"

MOST of the time, S9 refrains from head-on comparisons between competitive products. With both radios and antennas there are so many variable factors affecting an evaluation that it simply isn't fair to compare one product with another. However, with a product as simple as a radar detector, just the opposite case is true. One detector either will or will not provide earlier warning than another. So such a test is both practical and equitable.

We've had many requests to test several of the leading detector brands. Well known names such as Whistler, Fuzzbuster, Fox and Snooper are often mentioned in letters from readers. We decided that it would be fun to run such a test, as well as being most informative.

Since Car and Driver Magazine had an unfortunate experience with a product supplied directly by one of the manufacturers a year ago, we chose to purchase our test detectors right off the shelf of a local dealer. That way we wouldn't be testing a unit that had been deliberately peaked up for the tester's benefit. In fact, we actually bought three each of the detectors being compared to make sure that our tests were as fair to each product as possible.

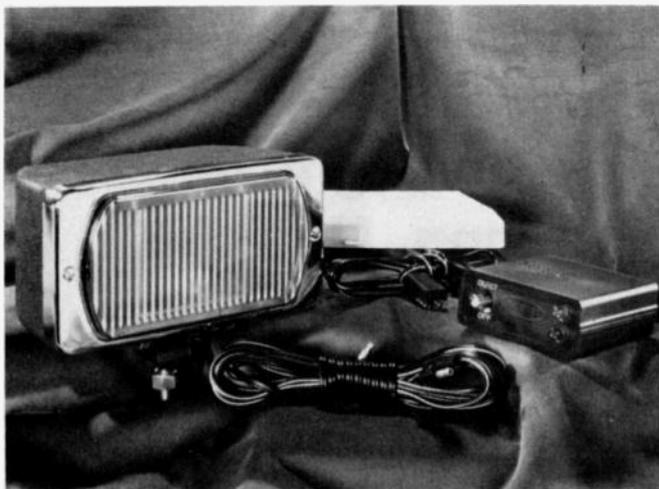
In order to run our tests in the shortest time span, we contacted several police agencies within a fifty mile radius of the metropolitan New York area. We explained exactly what we were trying to accomplish,



The Fuzzbuster Elite is a standard dashboard-mount detector.

and asked for a schedule of a few roads and parkways that would be monitored by the police on the given dates. Not all the police departments were cooperative in supplying us with this information, but we got more than enough help to make our tests over a wide geographic area with a broad diversity of terrain. We also told the police in the areas that the tests were to be scheduled that we would be testing the units involved at speeds approximately 10 miles per hour over the limit. The purpose of that was to see if we could avoid getting caught through the warnings of the detectors, but we obviously didn't want to pile up speeding tickets in the event that the detectors didn't perform as well as they have been advertised as doing. The police departments working with us firmly said that they couldn't condone speeding for any reason, but that they'd be as cooperative as possible if our testers were provided a letter of identification.

So much for the ground work. The tests were able to get under way. We mounted a Whistler remote unit on the front bumper of a nondescript car, and the Fuzzbuster Elite on the front dash. The object of the test was to determine which, if either, of the units was more sensitive, if the less sensitive unit was still adequate to prevent getting caught, and if either or both was subject to giving off false signals where



Whistler Remote units feature a multi-band receiver head and a small control console for the instrument panel area.



The Whistler receiver head mounts on the front bumper.

radar wasn't actually in use. The results were astounding.

Over a period of several days, in a wide variety of locales, the Whistler outperformed the Fuzzbuster in virtually every instance. Thirty seven times we passed police radar units, and in thirty five of those passes, the Whistler sounded first. The distance of advance warning varied between two and four tenths of a mile, a significant difference. The two instances where the Fuzzbuster signaled first were both cases where the radar had been positioned just beyond the crest of a hill, and in both cases, neither detector sounded early enough to prevent the speeder from getting stopped. We attributed the slight difference in the positioning of the detectors on the car to be the factor that gave Fuzzbuster the edge in these two cases. In all other instances the Whistler was the winner by a wide margin.

We also ran a series of tests using each detector by itself, with its competitor disconnected. Each unit was tested eight times this way. In all eight tests the Whistler alarm was triggered in ample time to prevent our tester from being stopped. In five of the eight tests with the Fuzzbuster, our driver was stopped for speeding. In fact, he had to do a lot of fast talking to prevent being ticketed for speeding in three of those five. Fortunately, the letter identifying him as a tester for S9, plus the fact that he had more than one unit in the car, managed to prevent some expensive court time.

Considering all the advertising claims for performance of the various units on the market, the public is entitled to more tests of this sort to weed out which products really work. A radar detector isn't something you'd want to replace every week or so because of speeding tickets. S9 will publish more tests on other detectors in the months ahead. We feel that our readers are entitled to share in our findings.

... Use S9 READER SERVICE

MORE FEATURES FROM ALLIANCE!



HD-73 HEAVY-DUTY ROTATOR

with exclusive Dual-Speed Control!

For antennas up to 10.7 sq. ft. of wind load area. Mast support bracket design permits easy centering and offers a positive drive no-slip option. Automatic brake action cushions stops to reduce inertia stresses. Unique control unit features DUAL-SPEED rotation with one five-position switch. SPECIFICATIONS: Max. wind load bending moment—10,000 in.-lbs. (side-thrust overturning); Starting torque — 400 in.-lbs.; Hardened steel drive gears; Bearings — 100- $\frac{3}{8}$ " diameter (hardened); Meter — D'Arsonval, taut band (back-lighted). There's much, much more — so get the whole story!

Mail this coupon for complete details!

YES! Send me complete details on the HD-73!
 Give me the name of my nearest dealer!

NAME _____

ADDRESS _____

CITY _____

STATE _____

ZIP _____



The **ALLIANCE** Manufacturing Co., Inc., Alliance, Ohio 44601
A NORTH AMERICAN PHILIPS COMPANY

Maker of the famous Antenna Rotator ... Alliance Tennis-Rotor® ... "TV's Better Color Getter!"

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CIRCLE 65 ON READER SERVICE CARD

S9 • September 1980 • 39

Cardswappers Unlimited

S9's Column for QSL Cardswappers

Conducted By: Dottie Iacone



The Cardswappers Unlimited Column is dedicated to the hobby of swapping or exchanging CB QSL cards (wallpaper). The below listed CB'ers have submitted their names to this column to indicate that they invite other CB'ers to send them QSL cards for swapping purposes, and will respond to all who do so with a QSL of their own. Those readers wishing to swap cards with these people, should mail QSL cards directly to the addresses indicated, and NOT to the offices of CB RADIO/S9.

Readers wishing to be listed as Cardswappers are requested to obtain a copy of our rules and standards for becoming a part of this column. These rules were outlined in the December (1979) issue of CB RADIO/S9; a reprint is available for 25 cents and a self-addressed stamped envelope. Address all requests to: Dorothy Iacone, Cardswappers Unlimited, CB RADIO/S9 Magazine, 14 Vanderventer Ave., Port Washington, NY 11050.

Cleopatra/ The Diefenbach's, 1501
Warlock Nathaniel Mitchell Rd.,
Dover, DE 19901
KMV 2120 Jim Thompson, Rt. 6,
Box 90A, Ida OK 74820
KAXO-9558 Paul H Miller 361 Tracy
Lane, Grand Island, NY
14072
Hard Hat/ The Daley's 22 Teetsel St.,
Gemini Saugerties, NY 12477
SSB-1186-B LP Sell, Sr. 9423 Waverly
Dr., El Paso TX 79924
KAST-6919 Mildred S. Bugbee Rt 1,
Box 39 Pennville IN
47369

Big Dollar/ Pres. U.S. of Texas QSL
Unit 183 Swap Club, P.O. Box 183
Henderson, TX 75652
Mr. Magic/ The Martin's, 101 Diplo-
Rag-Muffin mat Plaza, Morton, IL
61550
KQL 5845 John J. Vinsko, 34 Weston
Place, Shenandoah, PA
17976
Screaming P.O. Box 5115, Security,
Eagle CO 80931
Ballbuster/ The Willis', FMC TMP 1
American Box 43, APO 09710
Eagle N.Y.
KXD-9421 Gus & Ella, P.O. Box 54
Byron Center, MI
49315
KHN-4892 Mike Zimer, 2917 Coventry
Blvd., N.E., Canton,
OH 44705
Unit 76 P.O. Box 14786, Phila-
delphia, PA 19134
KCT-5194 The Krebs, 9919 Vega
Lane, Valley St., KY
40272
Captain David Haire, 2406 Prince
America Ave., Tifton, GA 31794
Wizard/ Box 16164, Ft. Harrison
Travler IN 46216
SSB-4707-A P.O. Box 20820, Phila.
PA 19141
Purple Jon Klotz 6501 Old Boon-
Viking ville Hwy., Evansville,
IN 47715
High Plains P.O. Box 20820, Phila.
Drifter PA 19141

Unit 689 P.O. Box 20820, Phila.
PA 19141
The Fly W.I. Hoeg, 10-B Green
Fisherman Acres Rd. Halifax, Nova
Scotia Canada B3R IC6
Cutty Sark J. Renshaw, 8361 Woody
Dr., Norfolk VA 23518
Lucky-Lady Hazel Gettinger, 78 Hud-
sondale St., Weatherly,
PA 18255
KPM 0221 78 Hudsondale St., Wea-
therly, PA 18255
KASZ-2323 Faye Unit 720, PO Box
5983 August FA 30906
KGC-1045 The Blanchettes, 1 South
St., Danielson CT 06239
Hill Top Ethel Gomez, 24 Wood-
Lady land Dr., Wappingers
Falls, NY 12590
Mr. Coffee Michael Ray, 200 West
Carney Ave., E. Herkimer
NY 13350
SSB-1406-A Chip Lucas, P.O.B 265,
Verona, PA 15147
KEY 2443 M Spranger Jr., Rt 1
Perry Lake, Fairview, MI
48621
Big John/ P.O. Box 9266, Phoenix,
Snuggles AZ 85068

NATIONAL
HUNTINGTON'S
DISEASE
ASSOCIATION



THE MONITOR POST

RICK MASLAU/KNY2GL SCANS THE CHANNELS

SCANNER QSL's?

Keeping in mind the discussion we had here (last month) on secrecy of communications heard over scanners, let's delve a bit deeper into the prospects of getting QSL cards from VHF/UHF communications stations. You may recall that in the previous column I offered some thoughts on ways in which you might word a reception report (in specific respect to identifying the transmissions heard) so that the station operator can check it in the logbook without immediately becoming annoyed because he feels you have invaded his privacy. But a reception report that can produce a verification for you will have to be more than this.

For one thing, you will want to be certain to mention in your report things such as the type of equipment you are using, the make/model of the scanner, the type of antenna (including its height above the ground). If there were other stations heard on the same frequency of the station you are writing to, be sure to mention it, including if the stations were causing interference (if you can identify the stations and/or their locations, give that info too). In regard to the station you are reporting to, discuss the strength and quality of the signals and if you heard the base alone, or if the mobile units were being heard too (if you are sending your report to the operator of a repeater then it will be pointless to say that you heard the mobile units, since you heard them through the repeater and not "direct").

In your report, add in the extras—those items which so often help to explain the purpose of your report, break the ice, and tilt the balance towards your emerging from the experience with a QSL. Extras? Sure! For instance, mention that scanner monitoring is your hobby and that you've been involved in it for so-and-so-many years; tell about some of the more interesting stations you heard and/or the types of stations in which you may specialize. You should be sure to mention your registered monitoring station identification (KNY2GL is my monitoring identification and is always included in my reports—I find that it invariably impresses those who see it in my correspondence).

Next, we start gently getting around to the basic purpose of your report, to secure a verification. You

must, of course, know that 99% of the stations you hear do not have a QSL card to send to you; the fact is that the people who receive your report may not even know what a QSL or a "verification" is! So, explain in your report that part of your hobby is collecting so-called QSL's or verifications from the stations you monitor; you might wish to say how many you already have from stations similar to the one to which you are now reporting.

While there are actually a few stations which have been monitored on a scanner that have been able to supply actual printed QSL cards, for the most part there aren't any such things to be sent out. You, as the one who wants a QSL, will have to make up a "prepared card" QSL for the station to fill in and mail back to you. The card you send them should have a postage stamp on it, be addressed to you, and the reverse of the card should contain all the data you want verified. All the guy who receives it has to do is sign the card and drop it in a mailbox. You may wish to leave some blank spaces for the fellow to fill in data on his transmitter power (if he knows it), and the antenna type and its height (again, if that data is known by the dispatcher). Tell the person to whom the report is sent that the card, once signed and returned to you, will be added to your collection as a valued verification of reception.

If you follow these simple rules the chances are that you'll strike it rich in the art of QSL'ing stations you hear on a scanner. As an example of the type of prepared card you might furnish to be sent back to you, here's a sample of how a typical card might look—you can just do it on a typewriter!

(continued)

BARNETT'S ROOFING SUPPLY CO., WEWOKA, ARKANSAS

This will confirm your reception of station
KRX-999 operated by Barnett's Roofing Supply
Co., on 151.685 MHz. Reception at 2:36
PM CDT, August 7th, 1980. Transmitter type
& power: _____

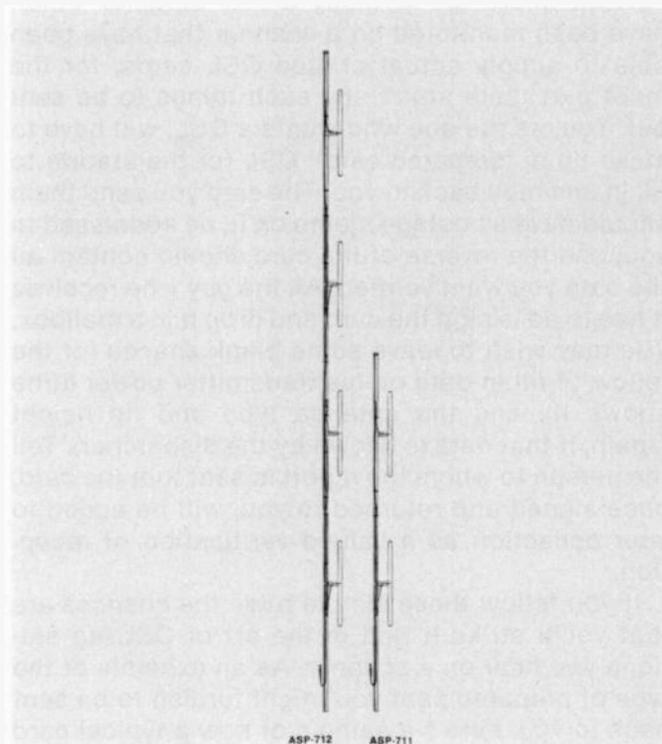
Antenna type & height: _____

(signed) _____
(title) _____

LIGHTWEIGHT HIGH-BAND BASE STATION ANTENNAS

The Antenna Specialists Co. recently announced development of two new series of all-weather, high-band base station gain antennas half the weight of the heavy-duty counterparts previously available. Light but rugged, the two-dipole, 6dB gain ASP-711 series antennas weigh just 13 lbs., yet have a rated wind velocity of 93 mph with a 1.65 safety factor (RS-329); the four-dipole, 9dB gain ASP-712 series antennas weigh only 25 lbs. and have a rated wind velocity of 82 mph with a 1.65 safety factor.

Both the ASP-711 (6dB gain) series and the ASP-712 (9dB gain) series are available in models covering the frequency ranges 150-160 MHz, 155-165 MHz and 164-174 MHz. All are rated at 500 Watts maximum RF power and have a VSWR of less than 1.5:1 across their 110 MHz bandwidth. Dipoles are field-adjusted to permit offset gain or

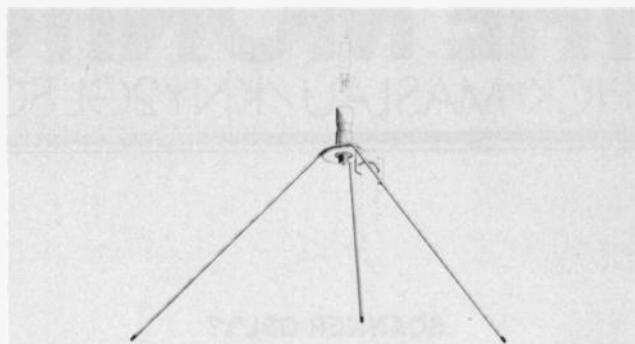


omnidirectional patterns. Type "N" male connectors are used.

For detailed product information, write to: Professional Products Division, The Antenna Specialists Co., 12435 Euclid Avenue, Cleveland, Ohio 44106.

HUSTLER VHF FIXED STATION MOUNTING KIT

A new mounting kit, Model MKR-2, is now available for converting Hustler's famous line of



series fed mobile VHF antennas to fixed station operation.

By utilizing the Hustler SF-2, 5/8 wave, 3.4 dB gain or CG-144, 5.2 dB gain collinear two meter antennas and the new MKR-2 portable or fixed station radial kit, operation comparable to much higher priced based antennas is attained.

With the appropriate VHF antenna installed and tuned, the MKR-2 is ideally suited for temporary field day use or permanent installation for local QSO's, or for scanner use.

The MKR-2 radial kit consists of a heavy duty zinc-plated mast bracket and hardware with three 19" decoupling radials for correct feedpoint impedance and accepts any VHF antenna with a standard 3/8" x 24 thread.

The radial kit can also be used with the Hustler SF-220 1 1/4 meter antenna for 220 MHz operation.

Information on this and other amateur, fixed and mobile antennas may be obtained by writing: Hustler Inc., 3275 North B Avenue, Kissimmee, FL 32741.

MOBILE-BASE UHF/FM 20-WATT RADIO ANNOUNCED BY TAMAPHONE

With the introduction of the Model U-4520, Tamaphone Corp. of America provides the first commercially available all-aluminum, diecast, integral frame/chassis UHF 450-512 MHz entry in the mobile-base 2-way FM radio field.

The rigid metal casting, in addition to offering optimum structural stability and durability, also acts as the mounting chassis for the components—to eliminate losses of transmitting power even when operated over long periods of time.

It has a transmission output of 20-Watts. The U-4520 has six assigned spot frequency channels, that cover the 450-512 MHz UHF band, with 25 kHz spacing and a maximum spread of 2MHz. External power sources can be either 13.8 Vdc ($\pm 10\%$) or 110/220VAC, with rectification. It operates efficiently over a broad -30°C to $+60^{\circ}\text{C}$ ambient temperature range. And, it is an F3 emission type unit (phase-modulated).

The U-4520 UHF/FM 2-way mobile radio comes complete with a hand-held "press-to-talk" mike/speaker (an external speaker is also optionally available). Its cabinet measures a compact 6.85 inches wide, 2.13 inches thick, and 8.86 inches deep (174 mm x 54 mm x 225 mm), and weighs only 5.5 lbs. (2.5 kilograms). The mike/speaker has been especially developed to provide effectively clear audio response under high noise environment conditions.

The unit has a transmit and receive frequency stability of $\pm 0.0005\%$ over the full -30°C to $+60^{\circ}\text{C}$ operating temperature range. In its transmit mode, it has a frequency multiplication factor of 12 times ($2 \times 2 \times 3$), a less than 10% distortion factor, and harmonics and spurious emissions that are 70 dB below the carrier levels.

The receiver, a double superheterodyne type, exhibits a 1st intermediate frequency of 21.413 MHz and a 455 kHz secondary. It has a minimum AF output of 2.5 watts, with a 10% distortion factor, at resistive loads of 8 ohms. Sensitivity is 0.5 μV for 20% quieting, and selectivity is 75 dB or more at adjacent channels. Squelch sensitivity is less than 0.3 μV , and it has a spurious noise sensitivity that is greater than 70 dB.

Deliveries of U-4520 units and companion accessory items are on a U.S. domestic 2-week turn-around cycle. They carry a full one-year limited warranty on parts and labor.

Particulars on quantity-order pricing, dealer discounts and technical data can be obtained by contacting Tamaphone Corp. of America at 18010 South Adria Maru Lane, Carson, California 90746.

NEW EXPERIMENTAL STATIONS

KF2XGA, WESTINGHOUSE COMMUNICATIONS SERVICES, INC., Anne Arundel, Md. Station to operate on various discrete frequencies between 806 and 1395 MHz by U.S. Government contract.

KF2XHX, MOTOROLA, INC., District of Columbia. Station to operate on 887.79, 888.81 and 889.53 MHz to develop the cellular radio-telephone systems.

KF2XHY, GAINES RICHARD JOHNSON, Milton, W. Va. Station to operate on various frequency bands to develop a communication system suitable for caverns and mines.

KF2XHZ, JOHNS HOPKINS UNIVERSITY, Columbia, Md. Station to operate on 49.8 MHz as required by U.S. Government contract.

KF2XIA, RF TECHNOLOGY, INC., Westport, Ct. Station for demonstration and field testing of equipment to be used on frequencies specified in Part 74 of Rules.

KF2XIB, GENERAL ELECTRIC COMPANY,

Niskayuna, N.Y. Station to operate on discrete frequencies between 540 and 565 MHz to evaluate an Audience Participation System.

KF2XIC, UNIVERSITY OF TEXAS AT AUSTIN, Panama City, Fl. Station to operate on 170.5 and 171.25 MHz as required by U.S. Government contract.

KF2XIH, ROCKWELL INTERNATIONAL CORPORATION, Arlington, Va. Station to make field strength surveys on frequencies specified in Parts 21, 74, 78 and 94 of the Rules.

KF2XIJ, RAM BROADCASTING OF MASSACHUSETTS, Boston, Ma. Station to operate on 151.625 MHz for two day demonstration of equipment in the Common Carrier Radio Service.

KF2XIL, DUAL-LITE, INC., Newtown, Ct. Station to operate on 12-20, 21-24 and 26-45 kHz bands to research a high frequency system to power fluorescent lights.

KF2XIM, DUAL-LITE, INC., Newtown, Ct. Station to operate on 12-20, 21-24 and 26-45 kHz bands to research a high frequency system to power fluorescent lights.

FCC TO ALLOCATE SPECTRUM AND SET RULES, POLICIES AND PROCEDURES FOR ONE-WAY PAGING STATIONS

The FCC has begun a proceeding to amend Parts 2, 22 and 90 of its rules to allocate spectrum in the 928-941 MHz band and to establish other rules, policies and procedures for one-way paging stations in the Domestic Public Land Mobile Radio Service and the Private Land Mobile Radio Services.

A 1978 study of mobile radio produced estimates that the number of pagers in operation grew from 483,000 in 1975 to 806,000 in 1977 and projected a total of 3,389,000 in use by 1985. Another analysis indicated that 5,000,000 pagers will be in use in 1985. According to the studies, both common carrier and private systems are expected to participate strongly in this growth.

The number of tone/voice pagers likely to be used in the future depends on the general growth of paging, consumer acceptance of new tone/optical-readout pagers and how quickly the technology of the instruments develops.

To meet the projected demand for paging systems, the Commission proposed distributing the paging band as follows: 929-930 MHz, private paging, 930-931 MHz, reserve; and 931-932 MHz, common carrier paging.

The Commission based its allocation proposal on 25 kHz channeling, which it said appeared desirable for paging. It invited comments, however, as to whether an alternative plan would be viable.

(continued)

The Commission determined that a 25 kHz tone/voice channel can accommodate about 960 common carrier users or 300 private users.

The allocation includes 40 (25kHz) channels each for private and common carrier systems, with two channels in each of the services reserved for tone/optical readout paging—in which messages are transmitted for display—and six channels in the private services reserved for tone-only paging.

In the common carrier service the other 38 channels will be available for any type of paging, and in the private services the other 32 channels will be reserved for tone/voice paging. The common carrier channels will be available to both wireline and radio common carriers.

The Commission proposed leaving one MHz (40 25 kHz channels) in reserve between allocations for private and common carrier systems for future use by advanced-technology paging systems.

The Commission acted in response to rulemaking petitions filed by the Ad Hoc Private Paging Committee (AHPPC) and Telocator Network of America (Telocator) for a 900 MHz frequency allocation for private and common carrier paging systems. In addition, the Commission addressed rulemaking proposals by Digital Paging Systems, Inc., for the use of 35.34 MHz for common carrier nationwide paging systems and Arthur K. Peters for common carrier nationwide paging systems on frequency 459.576 MHz.

Commenting on the Digital and Peters petitions for nationwide paging systems, the Commission said that if there is a need for such systems, it can be accommodated better by providing for growth of competing networks through channel allocation. The Commission proposed to accommodate this service in the 900 MHz band by tentatively allocating up to three time-shared channels at 900 MHz for common carriers wanting to offer paging service on an intercity network basis.

FCC MAY AMEND RULES ALLOWING 35 MHZ FREQUENCY USE FOR ONE-WAY SIGNALING

The Commission has begun a proceeding to amend Section 22.501(a) of its rules to allow the 35 MHz frequency band to be used for one-way signaling on an exclusive basis on the Domestic Public Land Mobile Radio Service (DPLMRS).

In the DPLMRS the 35 MHz-43MHz frequency band, commonly known as the low-band, has two authorized uses—two-way service provided pursuant to Section 22.501(a) of the rules and one-way signaling service pursuant to Section 22.501(d).

Ten frequency pairs are available for two-way service, and these frequencies are available only to the wireline telephone companies. Four low-band frequencies are available for one-way signaling service. These frequencies are available to both the

wireline companies and the miscellaneous common carriers, commonly known as radio common carriers (RCC's).

During the past year the Commission has received a number of applications from RCC's requesting waiver of Section 22.501(a) of the rules so that the low-band two-way frequencies could be used exclusively for one-way paging. Most of the applications have been unopposed by the wireline companies. The waiver requests have been based on these grounds:

- Applicants' existing frequencies are saturated;
- All other available RCC frequencies in the area are assigned;
- All or most of the wireline frequencies are unused; and
- Substantial unserved public need exists for one-way service.

The Commission said that the waiver requests had not demonstrated individual hardship justifying a waiver or offered any particular reason to deviate from the present allocation rule. The Commission also stated that if the two-way low-band frequencies are to be utilized for one-way signaling on an exclusive basis, this change of policy should take place within the context of a rulemaking rather than through a series of waivers.

Consequently, the Commission said it decided to initiate a rulemaking proceeding, to deny the requests for waiver of Section 22.501(a) of the rules and to instruct the staff to return these applications.

The Commission based its rule change proposal on the declining use by wireline telephone companies of the two-way low-band frequencies and a growing demand for one-way signaling service. Also, it sought to provide spectral relief for the paging stations that might need to transfer from the existing 43 MHz paging frequencies because of interference to TV reception caused by base stations operating on those frequencies.

The Commission proposed to make the 35 MHz frequencies available for paging to all existing and proposed communications common carriers, both the wirelines and the RCC's.

Also, the Commission proposed to make the 35 MHz paging frequencies available without a zone allocation plan and to allow existing wireline carriers to continue to operate two-way stations on these frequencies, if they wish.

The Commission asked for comments containing data concerning the size of the network paging market and its likely growth patterns. It also asked for comments about the showings that should be required of applicants for these network frequencies.

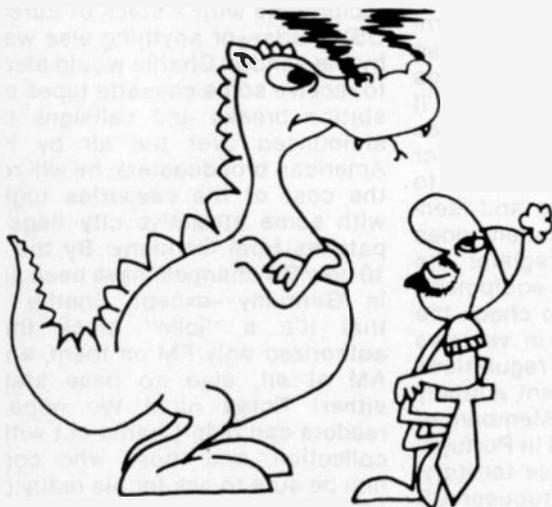
In other common carrier matters the Commission proposed to eliminate the requirement that an applicant demonstrate a public need for service before receiving authorization for an initial paging channel in a given area. This practice would apply to all paging frequencies, not just those in the 900 MHz band. Applicants requesting an additional channel would still be required to supply traffic loading data.

The Commission said that the common carrier paging channels at 900 MHz—other than the network channels—will be assigned to applicants by the Commission on the basis of geographical separation criteria, and all channels will be subject to time-sharing, if necessary, to accommodate all applicants.

Regarding private radio paging, the Commission proposed to follow licensing procedures similar to those used in the 800 MHz band (Subpart M of Part 90). In addition, comments are sought on loading standards and designation of frequencies for use outside urban areas.

The Commission indicated that it will also be issuing a supplemental notice of proposed rulemaking regarding the use of spectrum economics as an alternative method of allocation in this proceeding to insure the most efficient use of the spectrum.

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HELLO SKIPLAND!

By Craig, VX-42/Unit 342-X-ray/SSB-7042

Readers of this column are requested to let us know any overseas addresses they come across or hear on the air. We would also like to receive copies of any DX cards received by our readers so we can run them in the Hello Skipland Column. Since we don't wish to be responsible for the "safety" of any rare DX QSL's we request that readers send in copies (Xeroxes or other office type copying machine prints are fine) and not the original cards.

The (unauthorized at this point) CB service in England is still gaining momentum and just recently an underground CB publication by and directed to British CB fans has emerged. The publication is a monthly newsletter which is mimeographed (a recent edition ran more than 20 pages) and contains opinions, illustrations, newsclippings, cartoons, helpful hints, and general chatter about what's happening with CB in England. It's published by Mike (you may know him as UNIFORM KILO) and if you're one of our many British readers you might want to check out this publication, which is called BANDSTAND. Cost per issue in England is 25 pence, overseas copies are mailed at a fee of 4 IRC's via sea mail to U.S. and Canada, 3 IRC's to Europe. Address mail for the publication to: BM BANDSTAND, London WC1V 6XX, England.

Nick (THE RAMBLER), in Kent, England, advises that he's now on the air with a PACE 8015 rig, he's also got himself a new scanner.

Andres (UNIT 124 UK Mobile) has been reported by many North American operators and here's some

information on him. He's a Sidebander who operates from the southwest areas of England, having been introduced to CB by Phil Jenkins, SSB-000 (see our June issue cover). Andrew's unit is a Royce 639 which is being slightly helped along by a 100 watt footwarmer, but he told us that he "hopes to improve this soon." Basically, he'd like to come over to this side of the puddle and select some gear from a wider assortment than is currently available. Thusfar he's QSO'd Australia, Greece, Italy, Brazil, Sweden, Kuwait, and throughout North America. Andrew asks us to pass along to some special pals of his stateside, Buck, 2W7403, and Larry G. in Rhode Island.

Naresh, SSB-091, on the island of Barbados in the West Indies runs a Realistic TR-448 AM/SSB transceiver, a 4 element beam, and a Realistic power mike. He's a regular S9 reader. His government-issued CB callsign is "1791."

Mark, SSB-6620-A, who was stationed with the USAF in the Azores Islands, reports increasing CB activity at Lajes Field (located on Terceira Island). Operators are from the ranks of the USAF and USN. Mark reports that last year the Portuguese government finally authorized, a license costing \$25 lets you own 2 CB rigs (for a higher license fee they'll authorize more than two). The fees buy you a license which is good for one year. Operators are permitted to invent their own callsigns and identifications but the government does want the licensees to register the serial numbers of their equipment, and the smokies there do check the serial numbers of units in vehicles which they stop. The CB regulations set forth by the government actually permit "skip" operation! Members of the U.S. military stationed in Portugal (the Azores are Portuguese territory) do not presently hold Portuguese CB licenses as the American authorities don't want the U.S. forces paying the fee, although everybody hopes some agreement will be reached soon.

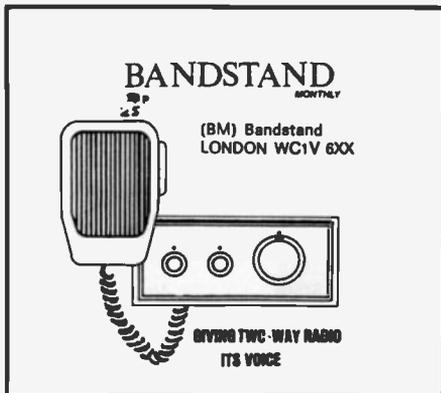
In the meantime, most of the American personnel tune up into dummy loads. Mark's dummy load works just fine, it is similar in design

and appearance to a 3 element Yagi and he's had 50 contacts in 15 countries with it. On his island alone there are about 4 Americans running Sideband, plus 6 local residents doing likewise—most popular frequencies are both sidebands of .385, although Mark monitors .365 through .405. Mark, who'll be stationed at Chanute AFB in Illinois by the time you read this, advises that his Illinois QTH will give him the opportunity to become active on the 49.86 MHz hobby band—he was an early 27 MHz Part 15 low power hobbyist back in 1963 (his identifier then was NORTHERN 5228). Welcome Home, Mark—we'll be looking for you on the Sidebands and also on 49 MHz!

Our friend Charlie, 13-E-198, P.O. Box 180219, 4800 Bielefeld, West Germany, reports that for the past decade he's been an avid SWL (short-wave listener) and has received stations from around the world on all bands (even the standard AM broadcast band). In conjunction with this he collects stickers and patches from broadcasting stations. If any of our readers could send Charlie any of this material he would be most appreciative and will be happy to reciprocate with a stack of European QSL cards—or anything else wanted by the sender. Charlie would also like to receive some cassette tapes of the station breaks and callsigns being announced over the air by North American broadcasters; he will return the cost of the cassettes together with some attractive city flags and patches from Germany. By the way, 10 new CB channels have been added in Germany—except Charlie says that it's a "joke" since they've authorized only FM on them, and no AM at all, also no base stations either! Rotsa ruck! We hope our readers can help Charlie out with his collection, and those who contact him be sure to ask for his really great looking QSL with all of those bright colors!

OVERSEAS ADDRESSES

SSB-091, Naresh Gopwani, "Vaswani Villa," Pine Plantation Rd., St. Michael, Barbados, West Indies
SP-1252, Henryk P. Szopa, P.O. Box 5, 41-501 Chrzow 1, Poland



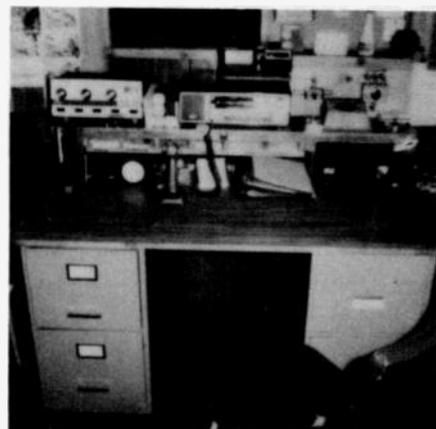
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 Call sign _____
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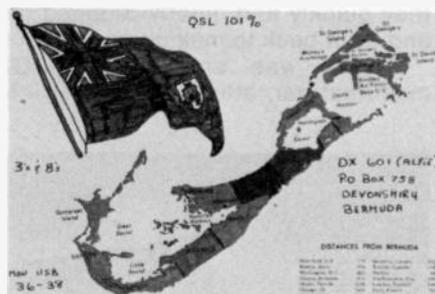
Here's the well-organized operating desk of Bob, SSB-7086, in Florida. Bob regularly sends in listings and QSL information to our column.

KILO ALFA, Ewald, Box 103, 3405 Rosdorf, West Germany
SSB-045, Salvador Rodriguez, Calle 60 Bloque 68 #17, Sierra Bayamon, Bayamon, PR 00619
ECHO DELTA, Peter & Irm, P.O. Box 2006, 5901 CA, Venlo, Netherlands
WN-3529, Craig Ross, 6 Kitchener Tce., Raroa, Johnsonville, Wellington 4, New Zealand
WASA-2, Wolfgang Borner, Robert Shymann Str. 18, D-6520 Worms/Rh., West Germany
SSB-0025, N.H. Symonds, P.O. Box 40, Umdloti Beach 4350, Rep. South Africa
ALFA LIMA, Ruud, P.O. Box 1558, 5900 BN, Venlo, Netherlands
WALROS 1 & 2, Hardo & Sonja Drefehn, P.O. Box 1, Steenredder 6, 2352 Bordesholm, W. Germany
CANON 1 & 2, Gunter & Brigitte Tenholter, Textorstr, 6520 Worms, West Germany
CONDOR 1 & 2, Gurgun & Beatrix Volz, Truipen 22, 5420 Worms, West Germany
SMOKEY, Rod Coote, Hauptstrasse 23, 3110 Uelzen 8, West Germany
SSB-046, Ronald Grant, Fair Field, Tudor Bridge, St. Michael, Barbados, West Indies
OSTFRIESLAND, Bernd Preuss,

Vereinswieke 50, D-2953 Rhauderfehn 1, West Germany
RIO 4, Werner Hansen, Marienstrasse 57, 2390 Flensburg, West Germany
SUNSHINE STATE 1, P.O. Box 250, Maryborough, Qsld. 4650, Australia
SANDCASTLE 303, Brian Dolan, 7 Jetty Road, Putney. N.S.W. 2112, Australia
Bill Ballis, P.O. Box 150, Inala, Brisbane 4011, Qsld., Australia
ROXY, Arne Larsen, P.O. Box 1078, 7001 Trondheim, Norway
ANDROMEDE, Michael, B.P. 90, 13203 Marseille, Cedex 1, France
NA-2719, Melvyn Bishop, f1/74 Sunnybrae Rd., Glenfield, Auckland 10, New Zealand
SNOOPY 2, Murray G. Tempero, 3/22 Camp Rd., Otahuhu, Auckland 6, New Zealand
ALFA BRAVO 1, Bruno, P.O. Box 1, 7521 Kronau, West Germany
ALFA BRAVO 119, Mario, P.O. Box 12, Conegliano, Treviso 31015, Italy
ALFA BRAVO 74, Felix, P.O. Box 14170, Sao Paulo 01000, Brazil
POPPA ROMEO 43, P.O. Box 38, Nangwarry, S. Austro. 5277, Australia
13 ALPHA ECHO, Hartmut, Postbox 6631, 4800 Bielefeld 1m W. Germany
CALYPSO 05, Karl-Heinz, Bauer, Oelkerstr 10, D-4800 Bielefeld, W. Germany
MIKRO 79, Kurt Steiger, P.O. Box 208, CH-8600 Dubendorf, Switzerland
ORBIT 01, Gunther Volesky, Kirtenweg 8, Duisbg./Ehingen, West Germany
54 LIMA XRAY, Carlo, P.O. Box 2177, Luxembourg, Luxembourg
KILO ALFA, Ewald, P.O. Box 103, 3405 Rosdorf, West Germany

HFN-1, Willy Schwind, 144 rue Porte des Ardennes, Erpeldange/Ettelbruck, Luxembourg
SSB-0026, R. W. Harp, Box 148, Pullenshope 1096 TVL, South Africa
FOXTROT 5, Guido, P.O. Box 1, Kieldrecht 2790, Belgium
CHARLIE BRAVO 148, Ken, P.O. Box 220, Franciscrown, Botswana
47WW4, Simon, P.O. Box 7711, Copenhagen, Denmark 2800
SSB-044, Domingo Polanco, P.O. Box 88,198, Caracas 1.084-A, Venezuela
C. Grant, 26 Mall Road, Kingston 11, Jamaica, West Indies

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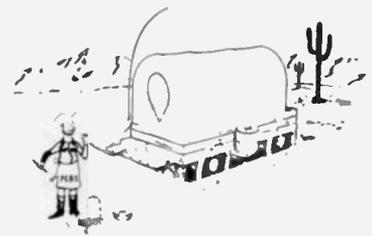
CB-STATION

DU - Süd



HOTEL FOXTROT 2, Joe, 60 Old Bawn Ave., Tallaght, County Dublin, Ireland
BRAVO 1, Tassosm P.O. Box 13, No. Ionia, Athens, Greece
15 WHISKEY ROMEO, Bob, P.O. Box 1, Holziken 5043, Switzerland
DX-601, Alfie, P.O. Box 758, Devonshire 4, Bermuda
ROMEO 23, Roberto Pascale, via G. Petroni 4, 70124 Bari, Italy
SANDCASTLE 437, William Bonney, P.O. Box 180, Rockingham 6168, W. Austr., Australia
RED DEVIL 1, Roberto Doi, via A. Diaz 85, 20079 S. Angelo-Lod., Italy

THE CB PIONEERS' CORNER



By Judy, SSB-99/PCBS-99

Not long ago a reader wrote to comment that it's somewhat peculiar that the companies which seem foremost in the minds of CB operators, both now and in the golden-oldie days, were primarily companies which were CB oriented, and that the so-called "major" producers of electronics hardware have either ignored CB or else gave it only passing interest. Is this true? What do you think?

Well, if you consider that a company such as Zenith Radio is a "major" manufacturer, you'd be correct; I don't believe that they ever bothered with the CB market. Magnavox, years ago, made a low-powered hand-held unit. Panasonic and Sony brought out a couple of models during the late 70's but never really seemed to pursue the CB market with any particular enthusiasm. General Electric and Motorola have come to the CB marketplace, but on a rather sedate basis; and General Electric's CB efforts did not seem particularly well received by the CB public even at the height of the "fad" phase of CB in 1976.

It is interesting to note, however,



RCA, which had one of the very earliest CB rigs, spent a number of years and several different rigs trying to capture the imaginations of CB'ers. While they made some nice equipment they somehow never could manage to come up with just the right design to realize the fullest potentials of their well known name in electronics.

that years ago some of the so-called "major" electronics manufacturers were far more enthusiastic about CB radio than they were by the time it "became successful." Old timers may recall that RCA had a monstrosity of a superregen CB rig called the "Radiophone" all the way back in 1959. It was ugly, clumsy, and not very popular but it did indicate that RCA was seeking to gain an early



Raytheon made an early splash in CB with their RAY-Tel series, however they seemingly lost their interest in the general CB market after a brief flirtation.

foothold on CB. Undaunted by the disaster of their 1959 rig, in 1963 they came out with a unit called the Mark VIII, followed not long after by their Mark IX, which was essentially the Mark VIII plus an S-meter. These units offered 9 crystal controlled T/R channels and a tunable receiver, built-in 110 VAC power supply (optional mobile supplies were available), a superhet receiver (1 RF stage and 2 IF stages). The later model had "crystal spotting" for finding your transmitting frequency on the tunable receiver. These sets sold in the \$150 price range. RCA continued in CB on a rather lukewarm level; some present era licensees may recall their two Co-Pilot units which came out in 1976. If RCA is still in the CB business they must be keeping it a secret.

Raytheon was another early "big-

gie" company which made an entry into CB radio, although their efforts were originally directed at the marine market, later at the dealer-installed auto market, and finally towards the general public. Their early rigs included the Raycom (5 channels at \$180) and Ray-Tel (4 channels, \$170) in 1962; improved models which appeared in subsequent years were called the Raycom 2, and the Ray-Tel TWR-2 and TWR-3. After the mid-1960's the company seemed to pull in its horns and their efforts (if, indeed there were any) in CB became little known to the general public. Possibly they concentrated on CB for the marine market, as Raytheon has long been a leading contender in that with their marine radiotelephones, depth finders, and navigational gear.

Even Amphenol, manufacturers of all those PL-259 coaxial connectors (amongst many other designs) appeared in the CB marketplace briefly in the mid-1960's with their Model 777. Apparently the rig was not sufficiently well received by the public to keep them interested in pursuing CB; they quickly and quietly dropped out and went back to making connectors.

Bendix was another early CB manufacturer, attempting to get into



Amphenol, of PL-259 fame, even had an early CB rig. It was a small solid-state job which was offered for only a brief period many years back.

the field on the basis of the name the company has made from long and successful years in electronics. In 1962 they were offering a 4 channel \$160 rig with the catchy name "CB Transceiver," but by the following year it appeared that they had decided to drop the rig. Nobody I know has seen a subsequent Bendix CB unit.

Ham manufacturers such as Globe, Hammarlund, Hallicrafters, Gonset, Johnson, Tecraft, and Multi-Products also came into CB in the early days; only Johnson seemed to be able to capture the imaginations of the CB'ers, however. Collins, one of ham radio's giants (as well as a leader in military communications) never produced a CB unit, although at one time there were rumors that they might do so. When CB'ers were permitted to build their own rigs there were several kits available from Heath, Eico, and Knight-kits.

And, yes, there were a few other names which were known to the general public (or at least which had made a name in 2-way radio circles) which attempted to break into CB—companies such as Pearce Simpson, Kaar, Webster, Ray Jefferson, and a couple of others. Of course, Radio Shack/Allied Radio and Lafayette Radio were large national electronics chain stores which had been involved in the CB field right from the start.

For the most part, however, other than the efforts from only a few of the foregoing companies, such as Johnson and Radio Shack, the CB field appears to have (over the years) given its prime attention to past/present companies which were best known to the public for their CB rigs—Cobra, Browning, Tram, Midland, President, Royce, Pace; although some of the companies have long



Francis Linkins, of Silver Spring, Maryland proudly calls this his radio room.

made non-CB products in addition to their CB units. And the "giants," the RCA's, General Electrics, Motorola's, and others from within the "Fortune 500" seem to have traditionally appeared to be either unaware of CB, or else have handled it with timidity.

SOME OLD TIMERS

Back at the very start of the CB service Harold Ross (better known as "Buck") was on the air from Tuckahoe, N.J. as 3Q1950. He's still active, too!

In April of 1963 the FCC issued the callsign KCD-1435 to Dave and Ruth Carr of Millville, N.J. Somehow they've managed to hang onto those call letters right to the present. Running a Browning Golden Eagle, they're also card swappers.

Francis Linkins, Silver Spring, Md., has been involved with radio since the

days it was called "wireless" (about 1933). He got into CB in 1964 as KKI-4120, a callsign he still has. He started in CB with a Globe CB-100, then later an EICO 712 Sentinel. As you can see from the accompanying photo, Francis still is active on the band!

Jim Thompson, of Jim Thompson CB Sales in Ada, Okla., got started in 1964 with an International Crystal CTZ-5A, then later an International KB-1. Jim has been an S9 reader since the mid-1960's too, was even listed in the S9 Swappers listings in the 60's as

KMV-2120. Jim claims to be the "most consistent and Number 1 QSL'er in the United States," having started with QSL's in 1965 and never letting up. He says he's mailed out more than 60,000 of his own cards plus many extras. Jim "GRASSHOPPER" Thompson has a spiffy looking QSL and if you want to swap with him his address is 815 East

Orchard, Ada, OK 74820.

Paul and Loiseau Bird of Vineland, N.J. began their CB careers as 3W3989 and KCD2744. They're still very active on the bands.

Everybody in West Virginia must surely know Sam Medley who used to be 5Q1334 back about 1961 or so. These days he's on the Sidebands and is known as RVW-511 and SSB-511-B. His callsign is KWH-2512. Sam hails from Sugar Grove, a small community in the mountains near the Virginia border. If memory serves me correctly, Sugar Grove is near the community of Moyers where I once went camping, ate "ramps," and was chased by a swarm of what looked liked 83-million hornets.

Bill Holzman, New Britain, Conn., still maintains his original CB callsign of KKA3224 which was issued to him when he lived in New Britain, Conn. He's also KWN4501, but many folks know him as UNIT 33 CENTRAL CONNECTICUT.

John B. Johnston of Derwood, Md., was licensed as 3W1735 in 1959. Later he had the callsign KKG-4547. Actually, John started out in the old Class B UHF service, then he got into Ham radio, eventually into Class D 27 MHz CB. John is even active in the UHF GMRS (old Class A CB) service!

In Daly City, Calif., they used to call Lou Brill 12W5267 in the CB pioneer days. He's still in there punchin'.

CB SHOP



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Closing Date—All advertising in this section will now close the 10th of the third preceding month; i.e., January 10th for the April issue.

PAYMENT — All ads must be pre-paid by check or money order (payable to Cowan Publishing Corp.), or through Bank Americard (Visa) or MasterCard. On charge orders, include card number, expiration date and inter-bank number. Permanent address and phone number must be supplied if not identified in actual ad copy. Publisher reserves the right to refuse any advertising deemed unsuitable or inappropriate. Because advertisers, services, and equipment contained in CB Shop have not been investigated, the publisher cannot vouch for the merchandise or services listed therein. Direct all orders and correspondence to: Eileen Lucey, S9/Hobby Radio, 14 Vanderventer Avenue, Port Washington, N.Y. 11050. Phone: (516) 883-6200.

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CB'ERS SSB HANDBOOK by S9's Tom "Tomcat" Kneitel! The standard reference book on 11 Meter Sidebanding. Every SSB Station should have a copy of this valuable 119 page book. Your own personally autographed copy only \$6.45 plus 55cts postage and handling (outside USA add \$1) from The SSB Network, P.O. Box 908, Smithtown, NY 11787.

SCANNER ENTHUSIASTS: If you can't program 418.55 into your REGENCY M-100/K-500 or 450.087 into your BEARCAT 250, chances are you're missing a lot of action! Send \$3.00 for more information and catalog of FREQUENCY DIRECTORIES and other monitoring aids. **DIGICOM**, Box 1175, New York, NY 10009.

NEW—BEAM DIRECTION LOCATOR SYSTEM SSB, CB, HAM/USA-CANADA: Eliminates the guesswork in DXing. Now you can zero your Beams to the exact location for strongest signal with this simple copywritten target system. 10-day money back guarantee. Complete instructions. Send \$6.75 Money Order, Check, Visa or MasterCard. **DX ENTERPRISES INC.**, P.O. Box 12803 S, JACKSON, MISS. 39211.

SECRET CB VOLUMES 1 through 9; \$12.95 each. Free Crystal Certificate with each book. **SSB ENGINEERING PRACTICE VOLUMES I and II;** \$14.95 each. **TECHNICAL CB APPLICATION 2nd and 3rd Edition;** \$14.95 each. **Cobra's Two-Way Discount Supply**, Route 5, Box 123, Hope, Arkansas 71801. 501-777-3220.

99 Ways to Improve Your CB Radio, \$2.95

A power house of information, 128 Pgs.

The Bootleggers Bible, proven by you to be the finest publication available for *modifying the CB Radio* now our 1980 Silver Edition is available at our 1977 price of \$12.95. **CB Radio Repair 1980.** A must for the serious CB'er. It can save you money as well as make you money. \$8.95.

-NINE OTHER TITLES-

CB Radio Antennas - CB Construction Projects - Linear Amplifier Plan Book - CB for Truckers - Q&A about CB Interference - Scanner Service Guide from CB to Ham Radio - CB Radio Accessories - Morse Code Training Manual with 3 practice records - Write us for more free information. We also carry scanner, CB & special XSTLS

AVAILABLE NOW FROM **A.P. SYSTEMS**
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CIRCLE 11 ON READER SERVICE CARD

YOUR HANDLE and CALL LETTERS etc. CUSTOMIZED on a PIN-ON-BADGE. MUST for easy identification at Koffee Klatches and Jamborees. Send \$2.50 plus 50c handling—**JEFECO**, DEPT 19-1, P.O. BOX 237, TRUMBULL, CONNECTICUT 06611. Connecticut residents add 7% sales tax.

LOOKING FOR old Lionel trains. Interested only in "O" gauge, excellent to like-new condition. Primary interest is locomotives prior to 1952, but will consider complete sets, or more recent models. Am willing to buy outright for cash, or swap radio gear to meet your needs. Write: **Dick Cowan**, WA2LRO, c/o CB Radio/S9 Magazine, or call 516/883-6200.

FREE! OVER 150 INFORMATIVE PAGES of more than 50 famous brands in **Graham Radio's** latest catalog. We sell to dealers only and ship anywhere! Send letterhead and state tax number for free catalog and price list. **GRAHAM RADIO, INC.**, Dept. S, 505 Main St., Reading, MA 01867.

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UNIT NUMBERS for your A.M. hobbying! Everybody's getting one! Your existing Unit Number registered or one assigned to you by the national registry for all unit numbered A.M. stations. You receive a big and attractive 8 1/2 by 11 color wall certificate showing your registered Unit Number, name and/or handle, and date of registration. Also included, an exclusive "private" report on how to get maximum use/enjoyment from CB with your Unit Number ID in addition to (or instead of) a "handle." Everything for only \$2.95, plus self-addressed stamped envelope. New large "Registered Unit Number" RUBBER STAMP (place for you to write in your own unit number) now available at \$4, ppd. If registration and stamp order filed at same time, a special combo rate of \$6.50 for both registration and stamp is in effect, a saving of 45 cts! **Z-Tech**, Box 70-FXM, Hauppauge, NY 11787.

SIDEBANDERS! Old Timers, newcomers, future operators! Do you care what happens to Sideband? We do too! Let's insure that we all get the very most out of Sidebanding, now and in the future! Add your vote to an even better, more useful, and more exciting Sideband by affiliating with the world's oldest (1964), largest and most important all-Sideband group. Your free application is waiting for you—get your own permanent national "SSB" ID numbers NOW to let the world know that you've got a stake in Sidebanding's present and future! Let's save Sideband! For application (no obligation) send a self-addressed, stamped, no. 10 long envelope. If you enclose your QSL, we'll return one of our spectacular metallic "silver" QSL's in return! **SSB NETWORK**, P.O. Box 908-X, Smithtown NY 11787.

BROWNING COLLECTOR: Will buy, sell or trade. Have R27-S23, Golden Eagle, Mark II (5-piece), Mark III and Mark IVA. For price list, send self-addressed envelope. For photograph and price list, send \$1.00 only (no envelope). To P.O. Box 468, Pittsfield, MA 01201.

PROGRAMMABLE SCANNERS: Don't buy ANY programmable scanner at ANY price, until you read our free **CONSUMER BULLETIN!** Firecom, Box 61, New York, NY 10011.

BEARCAT 250 Programmable Scanner (\$240.00). Selling to buy new Bearcat 300. Cert. check or M.O. only. **George Miller**, 2723 Saddle Ridge Lake Drive, Marietta, GA 30062.

"TOP SECRET" REGISTRY OF U.S. GOV'T RADIO FREQUENCIES (25 to 470 MHz) Second Edition by Tom (TOMCAT) Kneitel. Massive registry (3,800+ Listings) of scanner frequencies used by FCC, CIA, FBI, Border Patrol, Customs, Treasury, U.N., Fed. Prisons, FAA, Fish/Wildlife, Forestry, Nat. Parks, NASA, all military services, and SO much more! Only book of its kind ever published! Also included is a complete discussion of federal communications systems, coded identifications, "split decimal" frequencies, secrecy, listening tips, etc. The most unique scanner publication ever offered! Only \$4.95 per copy ppd., from CRB Research, P.O. Box 56-T, Commack, NY 11725. A complete catalog of all of CRB's exciting scanner data publications is included with each order, or may be obtained separately upon request accompanied by a self-addressed stamped 4 X 9 envelope.

NEW YORK CITY METRO FREQUENCY PROFILE includes listings for NYC UHF/VHF POLICE FREQUENCIES, FIRE, EMS and much more! City, State, and Federal agencies are covered. Includes special "SERVICES SEARCH" section detailing high activity frequency groupings. Eight dollars. Certified check or M.O. will speed First Class delivery. DIGICOM, Box 1175, New York, NY 10009.

WANTED: Royce 1-630 and HyGain 674B for parts. Indicate condition and price. Alan, Box 2923, Greenville, N.C. 27834.

SSB NETWORK RUBBER STAMP! Beautiful all new, large 1 1/2 inch size great for QSL's & correspondence! Shows SSB Net name and spectacular emblem. Has place for you to write in your own SSB Net ID number. Limited supply. Members only. Mention your SSB Net number when ordering. Only \$3.95, Postpaid. SSB Network, Box 908, Smithtown, NY 11787.

CB/HAM DEALERS. SEND FOR FREE CATALOG. AVANTI, PAL, ANTLER, HUSTLER, PRESIDENT, BIRD, HY-GAIN, TEN-TEC, JAPANESE TRANSISTORS, FINALS AND COMPONENTS. SECRET CB, METERS, TUNERS, CORNELL DUBILIER, METAL DETECTORS, SWAN, TEMPO, YA-ESU, KENWOOD, COMPLETE REPAIR FACILITY. APPLIANCE & REPAIR COMPANY, INC., 2317 VANCE JACKSON, SAN ANTONIO, TX 78213. 512/734-7793.

MONITOR FOR EMERGENCIES ON CHANNEL 9 or your local truckers' channel. We invite you to join our nationwide, non-profit organization. Members receive all the information they need to be an effective monitor. NO meetings and NO required monitoring. Members identify with their state name (such as "Florida State Emergency Radio") using the team call letters. INDIVIDUAL and TEAM membership. For more information and a membership application, send a self-addressed, STAMPED envelope (stamp REQUIRED for a reply) to: U.S. EARS, Headquarters, P.O. Box 1956-A, San Jose, CA, 95109.

NASSAU COUNTY CB'ers: Don't sit back... Join REACT. Central Nassau County REACT is now admitting new members. Participate in one of the largest and best REACT Teams in the world! Send now for information to: Central Nassau County REACT, P.O. Box 406, Westbury, N.Y. 11590.

ASSOCIATE MEMBERS WANTED to join American CB Radio Club. Receive membership card, permanent club ID number, 10-code, CB language, bumper sticker, QSL card etc. Associate membership only \$10 a year. Mail check to: American CB Radio Club Inc., P.O. Box 321, Bronx, NY 10469.

SCANNER OPERATORS! Are you registered? Be assigned your own personal monitoring ID letters inscribed on beautiful 2-color bordered certificate, plus discounts and goodies! Thousands already registered! Only \$5, ppd., from CRB Research, Box 56-T, Commack, NY 11725.

SCANNER CRYSTALS! America's leading mail order specialist, sent to you postpaid and factory fresh! Lowest prices anywhere, so low we can't even print them here! Send postage stamp for free catalog and special order form! Z-Tech, P.O. Box 70, Hauppauge, NY 11787.

CB SKIP IS BACK AGAIN! BEST DX CONDITIONS IN 11 YEARS! Sunspots again reaching their 11-year peak for SUPER transoceanic DX skip via AM and SSB. Whether you love skip or hate it, you'll find that a copy of "The CB'ers Worldwide 5 Language Translator & Operations Manual" will be your survival manual for operating on CB! A goldmine of CB DX data and foreign CB QSL illustrations; a special section translates English numbers, alphabet, and most needed CB words, phrases, sentences into easy self-pronouncing phonetic Spanish, French, Italian, German, Swedish. LOTS more info too! Know what they're saying, and where they're saying it! Only \$3.95 per copy, plus \$1 First Class mailing/handling. Order now from CRB Research, P.O. Box 56-T, Commack, NY 11725.

WANT TO BUY. Will pay top dollars—hard cash—for old Lionel trolleys in any condition. Also want old Lionel or Ives Standard Gauge trains. Your old clunker may be a collector's dream. Don't be bashful. Write: Dick Cowan, c/o CB RADIO/S9 Magazine, 14 Vanderventer Ave., Port Washington, NY 11050. Phone: 516/883-6200.

QSL CARDS BY A RELIABLE COMPANY WITH 14 YEARS EXPERIENCE IN SATISFYING CUSTOMERS. Top quality, reasonable prices. 12 colors, gloss-coated, designed for you. FREE CATALOG AND SAMPLES. Write: CBC CLUB, Dept. S59, Box 703, Lexington, NC 27272.

CB REPAIR—All makes. Complete repair \$14.99 plus parts and shipping. Extra charge for basket cases, modified or tampered with radios. Licensed, factory-trained technicians use factory service equipment and parts. Units returned UPS COD usually within 10 days. We bought out Robyn's entire parts inventory. Complete Robyn Parts and Service. Dealers welcome. Radio Parts Inc., 542-548 S. Division Ave., Grand Rapids, MI 49503. Phone: 616/459-0247.

VHF AERO BAND Scanner Owner's Frequency Directory! "AIR-SCAN," by Tom "TOMCAT" Kneitel, lists more than 12,000 stations/frequencies in U.S. (except Alaska/Hawaii) operating between 108 and 136 MHz. Civilian, military, listings including airports, airline "company" frequencies, emergency, etc. AIR-SCAN book is only \$4.95, ppd., from CRB Research, Box 56-T, Commack, NY 11725.

Siltronix 1011 D For Sale. Excellent condition with choice of microphones. Will ship C.O.D. \$450.00. Phone 316/236-7589. Steve Souders, RR 2, Box 94, Chetopa, KS 67336. 236-7589.

GET 'EM WHILE THEY LAST! We just uncovered a single carton of Orion's 1976-77 CB Radio trade-in guides. These little books list almost a hundred different brands of radio, and every model that had been made by those companies to date, with the going prices for sets in new, used, mint or average condition. It's a book that should appeal to the real CB nostalgia buff. But there are less than forty (40) copies left, so they won't last long. You can get yours by sending a check for \$3 to \$9, 14 Vanderventer Ave., Port Washington NY 11050. Make sure that you indicate that you want to order the Orion trade-in guide. Orders will be treated on a first-come basis.

GET MORE CB CHANNELS with THE PLL DATA BOOK: Simplified reference describing 35 PLLs. Detailed modifications, diagrams, specific models, non-technical basics, \$8.95. THE "SCREWDRIVER EXPERT'S" GUIDE TO PEAKING OUT & REPAIRING CB RADIOS: Original, simplified do-it-yourself manual for beginner or expert. Detailed problems/cures, specific models, illustrated. 1980 edition, \$9.95. MONEYBACK GUARANTEE! Cash, MO, Check, VISA/MC (include expiration.) Frequency Expanders, bleedover filters, range-boosting specialties catalog \$1. CB CITY, Box 31500-S, Phoenix AZ 85046

Police-Fire-Aviation scanning receivers. Regency, Bearcat, SBE, RCA, crystals, Antennas, frequency directories. Cobra, President, Motorola CBs. Write: HARVEY PARK RADIO, Box 19224, Denver, CO 80219.

Radio-TV interference problems, 30 page book complete step-by-step how to identify and resolve TVI and RFI. Prepared by FCC send \$4.95 plus \$1.00 first class mailing and handling to High Country Electronics, P.O. Box 2284, Colorado Springs, Colorado 80901.

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Catastrophic diseases are taking the lives of too many of our young children. St. Jude Children's Research Hospital is the largest center for the study of childhood cancer and other catastrophic diseases that are killing these children.

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St. Jude's purpose is to help children everywhere to live. Please help St. Jude. For further information or to make a tax-deductible gift, write 539 Lane Avenue, Memphis, Tennessee 38105.

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A **top load** sleek and thin, permanently encased in Shakespeare's exclusive fiberglass housing, designed to stay erect at highway speeds. A **base load** that spurs extra performance and delivers a true power match.



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Choose a powerful new magnetic mount designed especially for Two Load! 17 square inches of holding power clings to roof or trunk at highway speeds and under all but the most severe impacts. Or, choose Shakespeare's Trunk Lid Mount with the new spin on/off feature and built-in electronics. Its moulded rubber shield protects your car's finish. The stainless chrome unit is entirely moisture proof and resistant to corrosion.

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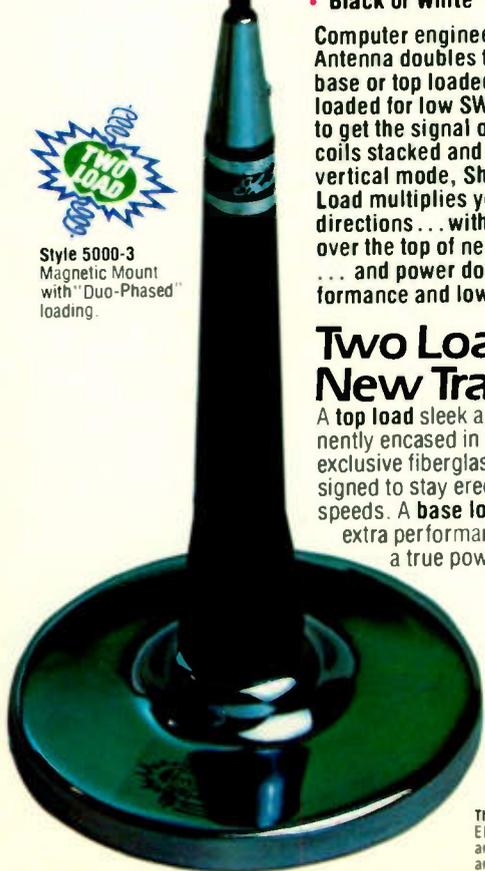
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CIRCLE 30 ON READER SERVICE CARD



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with "Duo-Phased"
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In one year our **K40** antenna has become the largest selling CB antenna in the world!

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MORE PERFORMANCE:

The K40 is guaranteed to transmit further or receive clearer than any antenna it replaces. We know it will. We've tested it with 771 CB'ers just like you for one year.

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You can fit your K40 to any mounting surface. It will fit any vehicle you'll ever own! That includes choppers, dune buggies, gutters, mirror mounts, luggage racks, trunks, hatchbacks, through roofs, semis, pick ups and RV's.

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It's not imported. It's not made in Taiwan, Korea or Japan. It's American made in an American town. It's made with better materials that cost more and by professional people we pay more. And we designed it right here in the U.S.A.

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GUARANTEE I: The K-40 will transmit farther and receive more clearly than the antenna it replaces or the customer will receive a prompt and full refund from the Registered K-40 Dealer who installed and tuned it.

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...Here's what the leading CB publications said.

CB TIMES: "... it's not often that a product bursts onto the market scene, dominates and improves CB'ing for everyone. American Antenna and the K40 are doing it—repeated tests showed the K40 could out-perform the major competitive brands."

RADIO ELECTRONICS: "The results of our tests showed that, in three different positions of the monitoring receiver, the model K40 equaled or out-performed the competitive antenna. Apparently, American Antenna's advertising is not merely Madison Avenue showmanship."

PERSONAL COMMUNICATIONS: "... an impressive 95% of the trials, the K40 out-performed the existing mobile antennas. We had to try one for ourselves.

"... In every case, the K40 either equaled or out-performed its competitor.

"No ifs, ands, or buts! The K40 Antenna from American Antenna would have to be just about the best antenna around.

CB MAGAZINE: "Introduced in October, 1977, the K40 quickly became the top seller and in mid 1978, became the number one selling antenna in the nation."

...Here's what CB'ers all across the country said.

ANTENNA SPECIALISTS: "... truck driver and CB'er for 10 years ... 50% further than my M410 'Big Momma'."

—J.H. Colett, 207 McFee, Bastrop, LA

AVANTI: "I'm an electronic technician with a Second Class FCC license ... I was able to transmit 70% further and tune the SWR 75% lower than my Avanti."

—H.R. Castro, VRB, Monserrate D-67, Salinas, Puerto Rico

PAL: "... 20% better in transmission and reception than my 5/8 wave Pal Firestik."

—John A. Blum, Box 446, Zelenoipole, PA

SHAKESPEARE: "... I've been a CB'er for three years and the K40 is the best I've ever had. Better in reception and transmission than my Shakespeare."

—H. Bachert, Jr., 15 King Rd., Park Ridge, NJ

HUSTLER: "Compared to my Hustler XBLT-4, the K40 can consistently transmit 40% further and the reception was better. The K40 is the perfect way to complete a CB system."

—Jerome R. Brown, 7800 S. Linder, Burbank, IL



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Our K40 Dealers will be happy to sell you any of the older style and less expensive antennas that are great bargains for any beginning CB'er.

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