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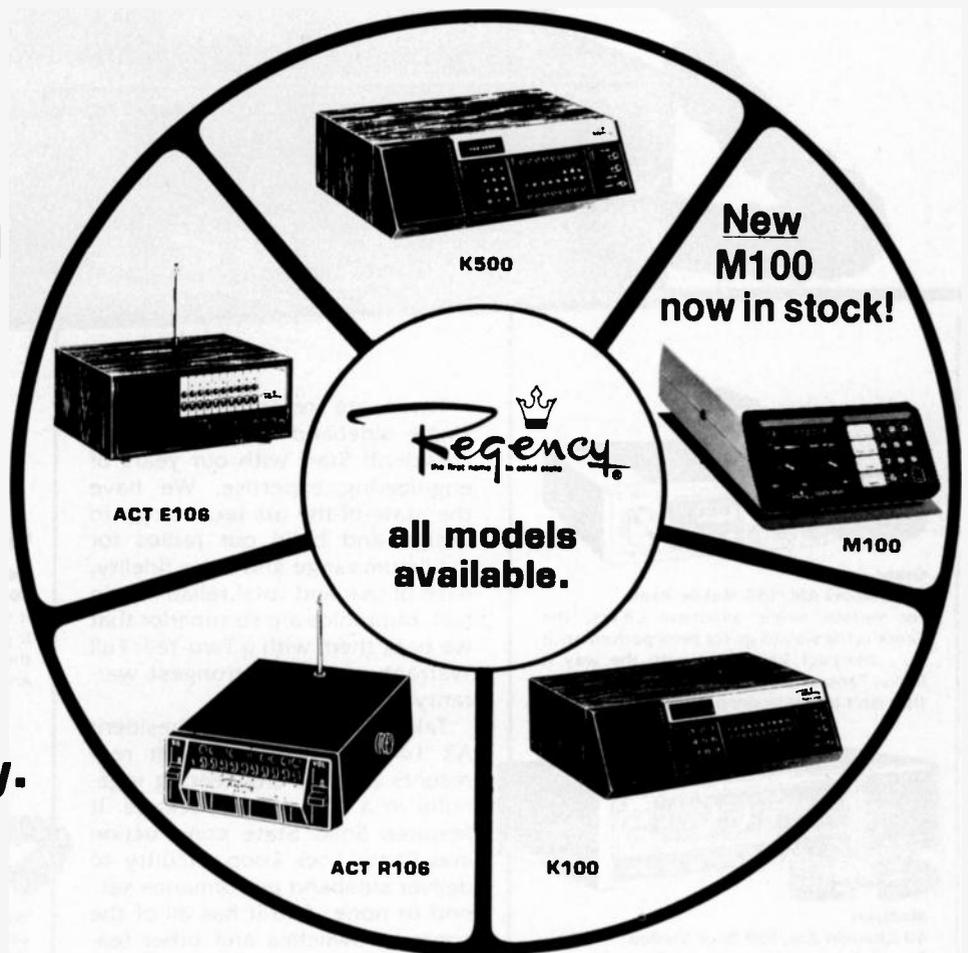
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S9 HOBBY RADIO

AMERICA'S OLDEST AND LARGEST CB MAGAZINE

VOLUME 21 NUMBER 1

JANUARY 1981

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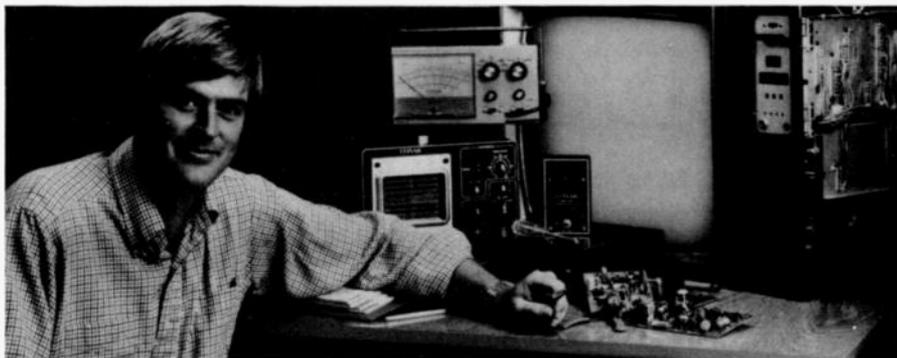
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CB NEWSWIRE

YOUR CB NEWSPAPER

JANUARY 1981

Two Die From Electric Shock

(via Tony TB-1, SSB-1970)

Two Aurora (Ill.) men were electrocuted as they worked to install a CB antenna on a building in Sugar Grove, Ill.

Christopher P. Davis, 23, and Robert E. Kohler, 24, were killed instantly, according to Chief Deputy Kane County Coroner Chuck Conley.

Conley said Mike Amadei found them lying on the ground near the east apartment at the same address.

According to Conley, the two men had not been dead long when Amadei found them at 3:30 p.m.

Conley said they had been working to put up the antenna as a favor to Kohler's fiance.

There were no witnesses, since the

backyard in which they were found was in a secluded location. Conley said, as far as he knew, no one had seen them since they began working on the project Tuesday morning.

Conley said Davis and Kohler were killed instantly when the antenna fell onto a 7,200-volt power line that was 26 feet off the ground and 10 feet away from the building.

FCC In Denver Hears About "CB Graffiti"

(via Ed, REBEL 2599)

You might call it the graffiti of CB.

In the lingo of the FCC, it's "intentional interference."

The FCC estimates there are 120,000 CB'ers in the Denver area—perhaps a dozen of whom sporadically make life on the airwaves miserable for the rest.

Take 'George', for instance. The radio users he harasses say every three or four nights, depending on his mood, he runs up and down the 40 channels swearing, hogging conversation, or otherwise bothering those who use their radios.

"He'll be going along, nice as can be, and then six words might set him off, and he'll go off on a tangent," said one CB'er. He said he'd like to remain anonymous because he feared retaliation. "We kinda put up with him, dog-gone him."

Several people have tried to do more, the man said. Petitions have been signed by 30 or 40 persons and delivered to the Denver FCC office, complaints have been filed, and nothing has happened.

George still cuts off "Gone Gran'ma" and argues with "Bronco."

Brion Gilbert, an FCC enforcement engineer in Denver, said intentional interference is an easy problem to deal with.

"We've got a car with a lot of pretty sophisticated direction-finding equipment, and when we hear something, it tells us right where to drive," Gilbert said.

That's convenient enough, except for one thing: It only tells them a couple of times a year. The rest of the time the engineers are monitoring television stations, telephone systems and dozens of other kinds of electronic communications facilities.

Colorado, Wyoming and New Mexico have been assigned to the three engineers and technician stationed on the 29th floor of the Executive Tower Inn. With that territory and the massive jurisdiction, Gilbert said the best the office can do isn't enough to keep problems under control.

The engineers spent a week in early February monitoring CB channels at various hours and found 23 violators, he said. Most were documented using more power than is legal, or broadcasting on illegal frequencies, and three or four were taped using

obscenities and interrupting conversations.

Gilbert said about half will lose their licenses, a third will be fined and the remainder will be warned against repeating their offenses.

Such an effort is made as often as possible, he said, but usually that amounts only to a couple of times a year.

"Why bother to have an agency if they aren't going to do anything?" asked one. He said he listens to his radio an hour or so most nights while he's at his workbench, usually just following the conversations. "It's just a pastime, that's all it is. If anybody calls for me, I go answer, and if it gets too bad I just turn it off."

People interested in cleaning up the channel have taped 'George', he said, adding, "I did it at one time. In fact I played it back to him so he could see what it's about. It didn't do any good."

"This character, he gets so foul I have to turn it off," another said.

"Guys have made tapes and taken them in, and the FCC doesn't do a damned thing about it. The only thing you can ever get out of the FCC is, "We're working on it."

Indiana CB'ers Look For Crimes

Tom Spudich and other Indiana residents in his New Albany neighborhood were tired of vandalism, such as car windows being smashed with baseball bats.

They wanted to do something, but didn't know what. So they met several times last year with New Albany police officials and representatives of another citizens' group to find out.

As a result, a crime-watch program was begun by Citizens Action, an organization made up mainly of New Albany residents who want to improve their city. The group was organized in January 1978 by Sister Mary Huberta.

The first part of the crime-watch program involved getting families to engrave their valuables with Social Security numbers. The second part involves a citizens' neighborhood watch that uses citizens band radios.

The watch, the only one of its kind in New Albany, began in November. Two nights a week, for four hours each night, citizens patrol about a square mile area. They look for people trying to commit crimes. If they spot anything suspicious, they use their CB's to notify another CB operator, who then, notifies the New Albany Police. The patrols have no direct radio contact with the police.

"That gives our department another set

of eyes and ears," said Police Chief Randy Hubbard.

Although the CB'ers have caught no one and crime statistics have stayed about the same, there may be at least one positive result.

"I think any type of program where we get interaction between police and citizens is good," Hubbard said.

Citizens Action suggested the CB radio watch. The police set out the guidelines, including advice that CB'ers not leave their cars to catch criminals.

They could get hurt, and "we didn't want them to get directly involved," Hubbard said.

Spudich, who is chairman of Citizens Action, said about 40 volunteers are available for patrols. With two people to a car, 16 people are needed for each patrol.

Walkie-Talkie Aids W. Va. Hitchhiker

Danny Vannatter commutes between Milton and Charleston, riding on his thumb for about \$7 a week.

"That's what it costs me to buy batteries," the 27-year-old Milton resident said. "My walkie-talkie can reach two or three miles."

Vannatter uses his walkie-talkie to catch rides back and forth from home and work.

"Hey, now!" he breaks into the CB morning commuter chitchat on Interstate 64. "Anybody eastbound for that Charleytown? This is the Hitchhiker at exit 28."

Vannatter is a cook's helper and handyman at a Charleston hotel. When he's trying to catch a ride, he's KBOD 8076.

And, he says, he usually catches a ride without too much trouble.

"Most people that pick me up are real friendly. Truckers are the best although many can't pick me up because their companies don't want them taking riders."

Just think how inexpensive it all would be if Vannatter switched over to Nicad batteries!

The volunteers can drive around or remain at specific spots. But, in either case, they must check with their base station every 15 minutes, Spudich said.

"There's not a whole lot of logistics involved in just getting people together," Spudich said.

"We don't feel bad if we go out and nothing happens. I strongly feel this type of thing becomes known and the word gets around the area. If the criminal element is there, it's going somewhere else," he said.

Another of the volunteers, Mel Norris, said, "It's pretty well known that we're out there."

Sister Mary Huberta said the CB Watch has been worthwhile.

Spudich and Sister Mary Huberta want more volunteers. Local CB'ers interested may get in touch with Citizens Action at the former Holy Trinity Rectory, 702 E. Market St., New Albany, Ind.

ARE YOU A GOOD OPERATOR? BE ONE—IT'S EASY!

Best communications practices dictate that, whenever possible, AM and SSB transmissions be isolated from one another on different frequencies. Sidebanders predominantly utilize the following channels (although there are local variations): 16, 17, 18 and 31 through 40.

AM operators are requested to avoid use of these channels, and, likewise, Sidebanders are requested to confine their operations to those frequencies which are normally used for Sideband operators. It is only through voluntary mutual cooperation in matters such as these, that maximum usefulness of both modes of operation, AM and SSB, can be achieved.

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'Minnie' Reported Fire

A Green Lane (Pa.) woman identified herself as the woman who prompted the first report of a fire at Pennsylvania's Candlewyck Inn one morning last March.

When the early morning blaze gutted Marlborough Township's historic restaurant on Route 29, firefighters responded to the scene because of "a woman" who reported the fire by calling for help over a CB radio.

Members of the North Penn Good Will

Unit, firefighters and even the restaurant's owners recounted the story of the woman who signalled for help, and whose children picked up the signal and called firefighters to the scene.

But no one knew her name.

And so accounts of the fire attributes first reports of the blaze to an unidentified woman.

Doris Schlingmann cleared up the mystery which she said brought a host of

CB aficionados claiming that they were the first to report the blaze.

Green Lane Fire Company responded to the fire call after being dispatched by the North Penn Fire Alarm Center. The North Penn dispatching unit is not authorized to reveal the names but a check through a chain of authorized personnel confirmed Mrs. Schlingmann's claim.

Mrs. Schlingmann, an avid CB radio fan since she installed both a car and home unit in the last year, was driving her car on Route 29 when she saw flames reaching out of the Candlewyck Inn's first floor.

Using her CB radio she said, "Oh my God the Candlewyck Inn's on fire. We need help. The Candlewyck Inn's on fire."

She said she repeated the message frantically on several channels hoping someone would pick up her message.

Her children, Terry, 18 and Vicki, 17, heard their mother's call and contacted fire officials by telephone.

Mrs. Schlingmann attributes her reason for being on Route 29 so early in the morning to another CB incident.

Recounting that morning's series of events, Mrs. Schlingmann, whose "handle" is Minnie Pearl, said she left her home about 4 a.m. to go on a "coffee break" at a donut shop in Quakertown after getting an invitation over the CB.

She left the donut shop and was on her way home when she began talking with her children, who were just waking up.

She said she told her children she was minutes away from home and would be there soon. When she approached the restaurant and saw the flames, she began radio communications again, signalling for help. Her son Terry responded and told his mother he called a fire company.

Reports that day also listed an "unidentified man in a truck" who attempted to rescue the restaurant's owners from the roof of the building by pulling his vehicle close to the building. Deep mud stopped his rescue attempt, and members of the Max Gunter family jumped to the ground instead of the roof of his truck to safety.

Mrs. Schlingmann said when she drove past the restaurant the vehicle behind her drove into the restaurant's driveway but she was unable to identify who the driver was.

Mrs. Schlingmann said she often stays awake through the night conversing on her CB and said if it hadn't been for a radio invitation to share a cup of coffee she never would have seen the fire.

Police Deaths Spur 2-Way Radio "Rescu System"

Most people are aware of this country's growing criminal violence, but not many realize how much of the violence is increasingly directed at the police. Yet, it is a disturbing fact that 15 on-duty police officers were killed and hundreds more injured in the United States in just the first two months of this year.

The statistics are so alarming that when the staff of ABC's "Good Morning, America" recently heard about a revolutionary new device to increase the police officer's safety, they wasted no time in putting the story on the air. The device is called the Rescu™ Emergency Location Alerting System.

"Good Morning, America" taped the story in Bedford, Ohio where the Police Department is now evaluating the Rescu

system. During an interview with Mr. Bob Paul, president of the Antenna Specialists Co., whose company is responsible for the development, manufacture and marketing of the Rescu system, Bedford Police Department personnel conducted a simulated emergency situation to show how the system works.

Basically it's simple. The officer radios ID, location, and brief situation report before leaving the patrol vehicle. This "last location" voice message is stored in a small solid-state trunk-mounted Rescu unit connected to the 2-way radio. If the officer encounters a problem after leaving the vehicle and needs help, he triggers a small belt-carried remote actuator which sends a silent, coded signal back to the patrol vehicle. This keys the 2-way mobile radio and transmits the previously recorded Rescu location message along with an emergency "May day" beep tone. Now the dispatcher and all the other mobile units on the channel immediately know an officer is in trouble...and where. Back-up can be on the way in less than 30 seconds.

The Rescu system will also trigger automatically if the officer falls or lies prone for any reason whatever...ambush, accident, a fall, or even a medical emergency.

A number of law enforcement agencies across the country are presently evaluating the Rescu system. Results so far indicate that it has significant potential to improve emergency response capability and increase the officer's sense of security. In a period of increasing crime and decreasing budgets, Rescu can be like another officer in the car.





Keep On {small} Truckin'

by Marc Stern,
KBFS-8072/SSB-0A71

Photos by Marc Stern

Recently I told you about some of the pitfalls involved in mounting a rig in one of the new generation down-sized cars from Detroit.

Let's face it, folks, the era of the longer, lower, wider and heavier vehicle is gone. So is the era of the monster V-8 engine. In the future the full-sized automobile is likely to be something about as big as the front-wheel-drive General Motors X-car. Although these were not the first front-wheel-drive cars made by a domestic manufacturer (Chrysler can claim that honor), they did help make smaller American cars acceptable to the buying public.

These smaller cars are not only thrifty on fuel, but are also spacious enough for a family and pets (dogs, cats or whatever you might have). The only problem for CB'ers is that much of the space where we used to put our rigs is gone, sacrificed in an effort to keep the interior space of these smaller cars usable.

The same, unfortunately, is true for trucks and recreational vehicles, whether two-wheel-drive, four-wheel-drive or campers. Like it or not, they are getting smaller and lighter, too—and as they do the space available for mounting a rig is disappearing.

Who's to say it's not a good thing?

It costs a small fortune to keep the gas-hungry beasts on the road. The smaller, lighter new generation of trucks return many dividends at the gasoline pump.

However, as with the new generation of downsized cars coming off the assembly lines, these trucks have their problems for CB'ers. Again, it's a matter of size. There just aren't that many places to put your rig.

Although you can mount a rig under a car roof, it's usually not done. But, in a truck—even a small, mini-truck—it's perfectly okay to do so. So, right off the top you're gaining an extra position for mounting (and one that I like the best)—but I'm running ahead of myself. I think we have to look at a couple of these new trucks to appreciate the size difference.

If you look at the Volkswagen Rabbit pickup or the Mazda B-200, the first thing you'll notice is that they are markedly smaller than their bigger cousins. This goes for any mini-pickup, be it a Chevrolet LUV, or a Toyota Hi Lux, or Datsun mini, or even any of the Chrysler offerings.

They really look like full-sized pickups that someone has let the air out of. Other differences you'll notice are smaller beds and lower wheelbases.

Looking into a mini's cab, you'll notice something right from the start—it's SMALL. You can fit three adults in one of these trucks, but they had better be very good friends before you start the trip—or they may become even better friends during it. The dash and instrument panel seem like they are about a foot away from you and your passengers—and in some cases they may be. Visibility is good, however, and you'll still be surprised at the amount of payload you can get into one of these trucks.

You'll also notice that the roof is much lower than on conventional full-sized pickups.

Now contrast this with your average everyday domestic pickup. Inside the cab of one of these babies, you feel as if you have yards of room, especially when compared with the mini versions. You also have more locations to mount your rig—the storage console, or in the huge amount of space under the dash or above the driver. Visibility is good in these trucks, too.

Unless you get a factory-installed, in-dash rig, you're going to have to spend time figuring out where to put your radio in a mini-truck. Every inch of space seems to be used for something by the automaker, so a rig be-



A good choice in a mini-truck is the dashboard. Though it is not recommended for other vehicles, in a mini it's okay since you're higher than the rig and it shouldn't interfere with your view of the road.

with your rig interfering with your line of sight and, possibly hiding a car at the worst possible moment. In a mini-truck you're essentially looking over the rig and it becomes part of the dash to your eye.

So, with this possibility open, you do have several alternatives. Let's explore the mounting problems associated with this spot. The greatest problem you'll probably face is putting on the mounting bar. You're going to have to punch some holes in the dash of your new mini-truck, if you choose this site. Another problem could be running in the coax and power cable. However, if you drill a large enough extra hole, you'll be able to run your coax and power cord from underneath the dash. This makes for a very, very neat installation.

Alternatively, you can run your coax along the dashboard and underneath the windshield and then to the rear of your rig. This, too, is one way to go. With this spot you gain the possibility of a nearly level view of all controls, the channel indicator and the meter. You shouldn't have to shift your view far from the road. If you mount your rig close enough to your driving position, you shouldn't have to move your eyes at all. Best of all, the microphone will be handy for your use. Altogether, in a mini-truck, this spot makes a great deal of sense.

Now, we come to my own favorite spot, the roof. Yes, I know it can be a pain mounting your rig up there, but think of the advantages. The rig is right overhead; in the small cab of a mini-truck, all the controls are nearly at eye level; the reach isn't very far, and the microphone will be very, very handy, indeed.

What are the problems involved?

comes something extra that will have to be shoe-horned in somehow.

You can, of course, go with a one-hander, of the variety made by Cobra or Radio Shack. In this instance, all you do is mount the actual transceiver box on a convenient cross-member under the dash and run out the cable to the mic, which contains all the radio controls. Or, you might try under-seat mounting. However, bear in mind that if you have someone who is large of body driving your mini-truck, you could end up with a mashed radio, should you go this route. Still, it's a good site if you're of average size.

One-handers are good rigs and worth their weight in miniaturization. They are good, too, for security purposes. You can keep your rig out of sight of potential thieves.

One-handers and in-dash rigs are good choices for mounting, and will prevent many problems—but what happens if you've invested a goodly amount of green stamps in an expensive Single Sideband rig and you want to use it in your new mini-truck? Well, you have to mount it—and here come the problems.

As I mentioned earlier, you don't have much space to play with under the dash. If your rig is a goodly sized one, you may run into problems.

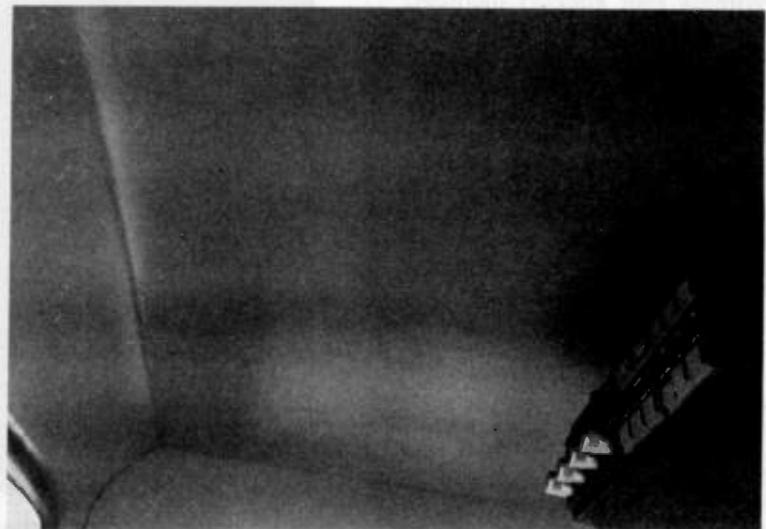
Okay, and I know I've said it before in these pages—*plan ahead and you'll prevent a lot of grief*. Take some time and go out and give your mini-truck a thorough going over for potential mounting sites. Take a pencil and piece of paper with you and make notes and sketches of the possible areas where you may want to mount your rig.

Look under the dash for secure

metal crossmembers—they are getting harder to find—and try to find a crossmember that is also part of the body for grounding your rig.

Of course, at this time of year it can get cold out there, so you might want to move your mini-truck into a garage if you can, or, if you can't, you should still take the time to check out all the possible sites. This will save you headaches later on.

If you've read my articles with any regularity, you'll know that I don't favor on-dash installations because of the possibility of safety problems while driving. However, I have to modify my opposition in the case of a mini-truck. With so few sites for installation, it only makes sense to use every possible site for installation. With a mini-truck cab so small, you won't run into as much of a problem



Try a roof mount. Of course it's more work, but it makes a neat and efficient mount and spot.



An alternative might be mounting your rig by the stick shift, but remember that you might run into problems with hitting your rig when you shift.

First, you're going to have to peel down the headliner—the liner that keeps you from looking at bare metal all the time—and then mount your rig on one of the roof support members. You're also going to have to poke some holes in this for the mounting support bracket and the coax cable and power cord. Another drawback to this site is the need for extra long runs of both coaxial cable and power cord, unless you're going to position your antenna directly over the rig on the roof and then punch a hole.

However, it's really easy to take down the headliner. All you need is a screwdriver to remove the sheetmetal screws and molding, and drop the headliner. It's as easy as that. Of course, you have to remove the overhead light, first.

The next course of action is determining where you want your rig and attaching the mounting bracket to a suitable roof support member. This will probably involve punching a couple of holes and then snugging down the bolts and screws. However, you might be lucky and find some suitable pre-drilled holes, and then the mounting becomes much easier.

Of course, this is getting complicated, but when done you'll have one very good-looking installation. The next problem is running in the coax and power cord. If you have chosen a roof-mounted antenna, then the coax is no problem. All you have to do is drop the coax and secure the antenna.

The power cord is another matter. You'll have to run the cord from the fuse box—or whatever hot source you choose—to the back of the rig. This could involve running it up the windshield pillar and then to the back of the rig—a complicated procedure.

However, there could be another out. Remember the dome light? You may be able to patch into its hot cord and run your rig from it, but first, make certain it will be able to take the extra electrical load without continually blowing fuses.

With the mounting bar and wiring in place—secured by wire ties—it's time to replace the headliner merely

by pushing it up and holding it. Before you secure it, determine where the mounting bracket falls and cut a couple of slits for the legs. Also, cut a hole for the power and coax cables. With this done, merely replace the headliner, then the moldings, and lastly the screws. Then all you have to do is put your rig into the bracket and snug it down, and you're nearly ready.

Next comes the tune-up—if you've left big enough holes there should be very little problem inserting the SWR bridge jumper—and you're ready to use your rig.

I know this sound like a big pain, but think about the advantages and how good it will look. If you don't have the expertise to do this, go to a good autosound store or CB retailer and explain what you want. They'll be able to do the job and you'll have a very good installation.

Moving along, we come to the dashboard itself—another easy and desirable location for a rig.

The underdash area is among the most desirable in your mini-truck, the simple reason being that it's also the easiest to work with—but don't think there won't be problems here. As with downsized cars, mini-trucks have very little underdash room to work with.



Another good spot is the storage area in back of the driver's seat. All the wire and coax runs will be short, but you may have to punch through the truck's body if your truck is made of single-wall construction.

Okay, so what do you do? First, scout out a suitable crossmember for mounting. The kind I like are the ones with pre-drilled holes. All you have to do is take the mounting bracket and a couple of self-tapping screws and the bar is up. The coax and power cord runs should be commendably short, too. In fact, it should be very easy to run the power cord from a hot outlet in the fuse box, or, if you can get access to it, the accessory switch on the ignition.

Depending on where you mount your antenna, it should be easy to run your coax to the back of the rig. If you mount the stick on top of the cab, then you're going to have to drop the

often there are only a couple of metal crossmembers, the rest being strong plastic. If your rig is light enough you'll probably be able to get away with using this type of crossmember, but if it's too heavy forget it.) You'll also be forced to search hard for a crossmember that is also part of the body frame for a ground point. Don't worry, though, if these are hard to find. They are there. You'll just have to search.

If you do locate a sturdy crossmember, then, by all means, mount your rig there. There are a few cautions. Don't mount it near the steering wheel—space is becoming so limited in mini-trucks that you'll be impeding

the stick shift (assuming your truck has a floor-mounted shift—and most do), you might want to consider mounting your rig in front of it or at the side. Make sure there is enough clearance or you'll find yourself whacking your rig every time you shift. If there is enough room, go ahead and use this space,

The second spot I'd recommend is the storage space behind the front seats. It's a pretty good spot because all the wire and cable runs should be fairly short (remember to put the power cord under the door molding to protect it.) About all you will find yourself doing is punching a couple of holes for the mounting bar, and



Another alternative might be an underdash mount. However, remember if you're rig is too big then you may run into problems hitting the firewall of the truck or with cutting down on some legroom.

headliner again and run it along the underside of the windshield pillar, around the dashboard itself and then under the dash to the back of the rig.

If you mount your antenna on the mirror, then the coax just comes in through the vent window, if your mini-truck has one. Or, it can be routed through a small hole in the door. But, if you choose this route, remember you'll have to drill holes in the appropriate spots. Also, you'll need to use rubber grommets to protect the coax.

If you decide to, you can choose a tri-band antenna and go through the front fender using the existing antenna hole. This might be your best bet for the antenna.

What if your mini-truck doesn't have any crossmembers with pre-drilled holes? Here, you will have to find a member that's sturdy enough to take the weight of your rig and drill a couple of holes for the bracket. (One thing I've noticed, crawling around some of the more modern mini-trucks, is that more and more

your ability to drive. It will pose a safety hazard.

The middle-third of the dash should be ideal, but remember the location of your heater blower outlet. If the rear of your rig is near enough to be swept by the heat during the winter, you could do a job on your rig. I emphasize *could*, but don't take any chances, anyway.

That leaves the passenger side of your mini-truck, and it is a very good spot. Remember that your passengers are going to have to have legroom. If your rig is too big they'll be much less comfortable when they are riding with you. There's one other drawback with this spot. You have to take your eyes from the road while you're driving to check the controls and the channel you're on. Also, it's a pretty LONG stretch if you have to adjust something.

There are a couple of other mounting spots you might want to consider. One of them is a long-shot, while the other is very good.

If there is enough room in front of

that's fairly easy to do. However, if your truck doesn't have a double-walled rear wall, then you'll find the bolts coming through exposed to the weather. In this case, it's a good idea to use some weather sealing to keep the water out. Another idea is coating them with a non-conductive epoxy to keep them from rusting.

Yes, folks, the age of the big truck is rapidly passing from the scene, due to the laws of economics and the necessity to conserve gasoline. This still doesn't mean, though, you can't keep a truck for recreational use or for camping. All this trend means is that your pickup will be much smaller in the future than you're used to.

Where trucks and recreational vehicling go, so go CB rigs. CB keeps you in touch when you're a long way from the beaten track, and it can help in finding accommodations when you're on the road.

Though the future belongs to the mini-truck, it still belongs to CB, too.

A Mobile CB Beam!

by Uncle Ned



1. Our V-Beam directional antenna for cars is designed to give a strong front-door/back-door radiation pattern with substantial right and left cutoff.

Yup---It's True! Turn Your Car Into A Beam!

WHAT'S this? A *beam* antenna for your car? Yes, it's true! Many people have joked about directional (beam) antennas for cars, and plenty of cartoons have been drawn with this joke in mind. It would, indeed, be a joke if we put a large beam on top of a car, and used a rotor motor to turn it! But the type of beam we have in mind turns only when the car turns. It is a *front door/back door* beam designed to let you get out better in the front and back, with quite a lot of cutoff on the sides.

The purpose of our *rabbit-ear* beam is to cut out base stations and street-bound mobiles when you are driving along a major interstate highway or tollway. This beam is a great *highway* mobile antenna that can boost your transmitting and receiving power up

to triple toward the front and up to double toward the rear of your vehicle.

For our beam, we used two 4-foot *Long Ranger* antennas on a *Firestick V-Mount*. Any type of stick antenna or even a whip can be used on the V-Mount, plus *Firestick* makes its own sticks that can be used.

Normally, a V-setup for two antennas would seem to radiate best out to each side, but the secret here is the ground-plane effect of a car. This tends to concentrate the signal and shoot it out the front and the rear provided the antenna system is mounted in the center of the roof or trunk. The beam will not work if it is on a bumper or over to one side on a rear fender. It is the large metal car body combined with the double antenna setup (set on

an angle) that does the trick.

The same setup could be used on certain trucks such as a pickup, but it must be mounted on top of the cab. Of course, in this case, shorter antennas must be used, but *Long Ranger* makes its sticks in two-foot and three-foot lengths. You can even go up to six- or eight-footers, but the wind may rip them off your trunk or roof with this double setup!

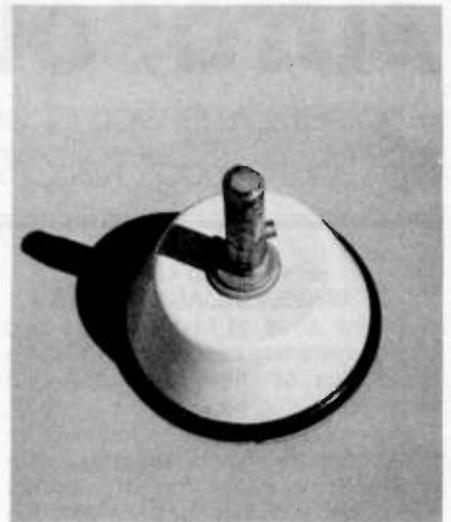
Another tip to using this system is to attach the V-Mount to a quick-disconnect antenna bracket. This allows you to use a *third* more common or standard antenna when you are in the city. In other words, take your V-Beam off and put on a standard single whip or stick for a more omnidirectional antenna when you are driving around town.



2. The key to the system is the PAL V-MOUNT and two "stick" type antennas.



3. The V-MOUNT is attached to a quick-disconnect mount for easy removal.



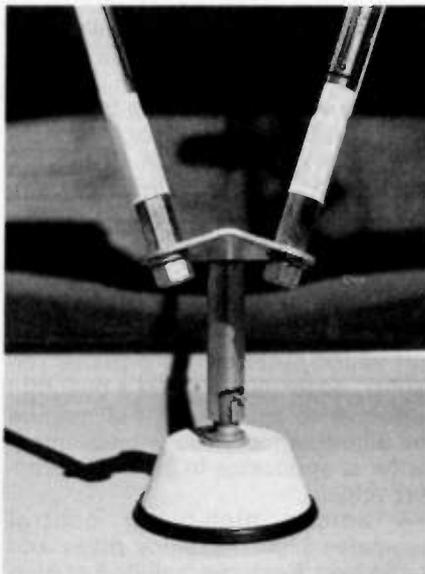
4. The mating half of the quick-disconnect mount goes on the car trunk or roof.

Several locals have used this beam setup and found that it is really versatile. The V-Beam is used on long trips, the single stick is used around town, and either antenna can be quickly disconnected for hiding in the trunk when the car is parked.

There is one catch to this system—it's a little expensive. A good four-foot stick antenna costs at least \$24. A second one plus the V-Mount and the quick-disconnect mount could run the cost up to \$60 or more. Add that *third* standard antenna, and you could spend \$80 for the entire setup if you are starting from scratch.



6. If you have a third (single) stick antenna, you may change from it to the V-Beam whenever you wish—use the V-Beam for the highway and the normal stick for driving around town.



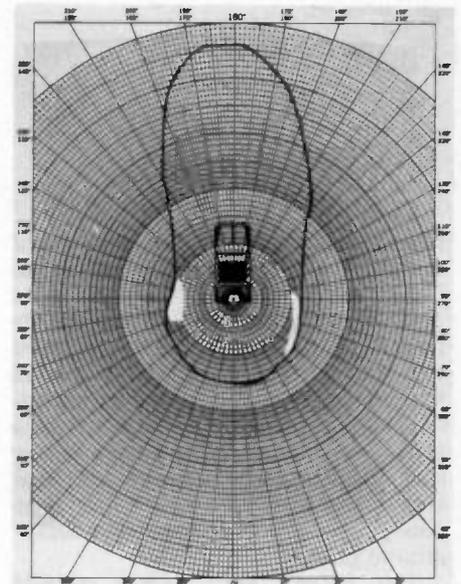
5. The system is mounted for use on the highway. SWR is not effected by the double antenna system, by the V-MOUNT or by the quick-disconnect mount. However, you must remember not to transmit without the antenna system.

However, if you already have one stick-type antenna, just buy a second one (exactly the same type) and add the mounts. You can get away with this addition for about \$30 to \$35. Here's another trick: If you buy *three* quick-disconnect mounts, you don't need the third (omnidirectional) antenna. You can put one quick-disconnect mount *under* the V-Mount, and two on top. Then when you want to convert to a single stick, just pull one off the V-Mount and attach it to your car.

Don't worry about SWR. Although you should take a meter reading

when you install this setup, you will find that your SWR will probably be *lower* with the addition of that second antenna and the mounting hardware. The entire system is usually compatible when you use the quick-disconnect mounts and the stick-type antennas—with no meter reading required when changing antennas.

One extra feature of this system—which you may or may not like—is the visual effect of the large V-Beam. It looks fantastic to most people, and they will wonder what on earth you know that they don't!



7. The actual radiation pattern achieved on our Toyota experimental vehicle shows the front-door/back-door radiation pattern with a strong emphasis on the front door or forward area. Radiation to the rear is a bit less, but it is still stronger than with a standard antenna setup. The side radiation pattern is very low.

AUTOSOUNDING

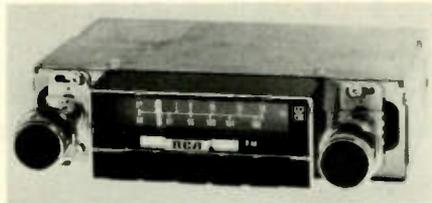
Another Dimension of Sound for CB Mobiles
by "Shutterbug" KXZ2974

EXPANDED LINE OF UNIVERSAL AUTOSOUND

A new array of in-dash radio and tape players has been added to RCA's broad line of Universal AutoSound products.

New units recently introduced by RCA include two cassettes with automatic reverse—one featuring AM/FM-stereo with pushbuttons and the other manually tuned. In addition, two more AM/FM pushbutton radios were announced also with "Din" type nosepieces for installation in most domestic and import cars.

RCA models 12R806 and 12R807 AM/FM-Stereo radios both feature automatic reverse cassette with locking fast forward and reverse control,



tape direction lights and tape eject button. Their radio function includes FM-stereo indicator light, stereo/mono and local/distance switches to improve reception, and fader and balance controls. The 12R807 provides five quick-set pushbuttons for convenient station selection. Installation is simplified by the special 6-pin speaker lead connector with unterminated lead extensions and universal "DIN" type nosepiece with trimplate and wrap-around gasket.

The 12T611 and 12R612 AM/FM radios both have five quick-set pushbuttons for convenient station selection, local/distance switch to reduce interference from undesired stations and fader control. The 12R612 also provides for stereo reception, with an indicator light and balance control. Installation is simplified for

both radios due to their chassis push-on ground connectors, T-bolt slots for bracket mounting, universal-type 6-pin connectors for multi-speaker systems, and universal "DIN" type nosepieces



with wrap-around gasket and trimplate to fit most domestic and import cars.

These units are available from RCA AutoSound Distributors or, for more information, contact RCA Distributor and Special Products Division, Deptford, N.J. 08096, Attn: Sales Promotion Services.

AN IMPORTED BEAUTY

The new addition to the A.R.A. Import sound systems line provides versatility, dependability plus a beautiful performance experience. Full feature and slim-designed, this entertainment center is applicable in almost any import vehicle.

A unique high-blend control eliminates high frequency noise and stereo hiss. Features include 5-station pushbutton tuning, auto reverse cassette tape player, locking fast forward and rewind, tape eject



mechanism, program selector, direction indicator light, high blend control, FM muting, FM local distance, traveler's advisory band, full 4-way stereo balance—left to right and front to rear.

An effective warranty and service program assures continuing product dependability. Headquartered in Grand Prairie, Texas, A.R.A. is a division of the Texstar Corporation.

TURNER[®]
CB
BASE
LOADED
Antennas





Roof mount with screw-in connector.

Trunk lip mount with screw-in connector.

- Spring-loaded, pure brass coil contact pin assures solid, corrosion-free cable connection.
- Exclusive screw-in antenna cable connector (patent no. 4,090,030) provides simple, low loss solderless connection.
- Weather resistant Noryl coil cover is impervious to the elements. Outlasts others, even in salt spray areas. Holds like-new appearance longer.
- Base plate triple chrome plated for corrosion-free, attractive appearance.
- Double thick trunk lip bracket will not break.
- Entire antenna is at d.c. ground for super, low noise reception.

- Three grippers adapt mount to any hole 3/8 to 3/4 inch in diameter

Exclusive roof top mount (patent no. 3,492,769) allows quick, solid mounting on vehicle surface.



Turner outperforms others on the four most important factors: power, performance, quality and engineering. When choosing your next CB antenna - check us out.

- ✓ **500 watt power capacity**
- ✓ **1.1:1 SWR**
- ✓ **Built to last**
- ✓ **Easy to install**

Turner Base Loaded Antennas are available in five different models including swivel ball models for slant backs. Convenient combination mount models include mounting brackets for both trunk lip and roof mount in one antenna.



SK110 Roof
SK210 Trunk lip
SK211 Trunk lip with swivel
SK260C Combo. trunk & roof
SK261C Combo. trunk & roof with swivel

TELEX® **TURNER**®

TELEX COMMUNICATIONS, INC.

9600 Aldrich Ave. So., Minneapolis, MN 55420 U.S.A.
 Europe: 22, rue de la Légion-d'Honneur, 93200 St. Denis, France.

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 movement, and at last obtain a number which is part of the uniform international Sideband identification system, recognized throughout the world.

THE FCC'S FANCIFUL FACTS

In the time which has elapsed since the FCC's (last-summer) meeting which tossed molasses into the gears of the proposed new exclusive SSB service, we have received lots of mail from readers expressing thoughts and opinions on how it all went down. Some readers asked us to file our own petition, others suggested that we lead a post-card barrage on the FCC offices, others sent long and highly detailed opinions which discussed the pros and cons of the FCC's policies regarding CB'ers.

Among the incoming mail was an extremely lengthy and most articulate document prepared by Chuck Hensarling, of Washington State. Chuck, as many readers know, has been on the inside track of many things which led up to that fateful FCC meeting. He has carefully gone over the transcripts of the FCC meeting and has offered his comments regarding a number of the rather twisted, incorrect, illogical, and outright false statements which were made at that meeting in an attempt to kill the proposal for an exclusive SSB service. I am presenting here a shortened series of edited excerpts and highlights taken from Chuck's observations since I believe that they clearly show the deceit which was going on at the FCC meeting and how, no matter how hard the folks from the Private Radio Bureau tried to get this proposal passed by the Commission, they ran up against such a barrage of dumb statements from the Field Operations Bureau that it is not likely that the proposal could have been passed at that time. The quotes noted as being from Mr. McKinney refer to Jim McKinney, the Chief of the FCC's Field Engineering Bureau, the man who has richly deserved most of the things my incoming mail has said about his ability to func-

tion as a fair and reasonable enforcer of the FCC's regulations.

TV CHANNEL 6 INTERFERENCE

McKinney: . . . "The expansion to the new band will create a third harmonic problem on channel 6 television. Since Channel 6 TV does not exist in cities where Channel 5 TV exists, they are always assigned to different cities . . . this will raise a whole new series of new locations where 3rd harmonic interference from the Citizens Band will become prevalent, and those cities which have Channel 6 television will experience that problem."

This is a false statement. The present CB Service has channels (35 thru 40) whose 3rd harmonics fall in this spectrum. CB channels 35 thru 40 just happen to be the channels used most for SSB transmissions in most areas of the country. Mr. McKinney implies that cities with TV Channel 6 do not now have TV interference on this channel. This confirms the fact that SSB emissions do not cause the interference that results from the Amplitude Modulation (AM) emission mode.

The proposed frequency band (27.41-27.54 MHz) could have 3rd harmonics that fall in the frequency spectrum occupied by TV Channel 6. However, these occur in a very small portion (390 kHz) of the Channel 6 lower vestigial (suppressed) sideband. Most of the users in the proposed radio service would come from SSB operators now operating on the existing CB channels. There is no evidence that there will be a sudden increase in the overall number of SSB operators that would increase the potential for TV interference. There are already thousands operating in the proposed band with high power transmitters, according to statements by Mr. McKinney and other FCC officials. There is no basis for the statement that authorization of this SSB radio service would increase the potential for interference to TV Channel 6.

Third harmonics from the Amateur Radio Service 10-meter band cover a large portion (4000 kHz) of the information segment of the TV Channel 6 spectrum. These harmonics would come from transmitters authorized up to 2000 watts PEP, several hundred times the power being considered for the proposed SSB service. Thus, even high powered transmitters can have the potential for harmonic interference minimized by the use of proper techniques. Operators licensed in the proposed SSB service would be subject to the same educational process pertaining to interference as presently required for licensing in the Amateur Radio Service.

THE SKIP PROVISION

McKinney: . . . "and the skip provision is the one I find most troublesome because the allowance and indeed, the encouragement for using skip communications will, it seems to us, encourage people to do two things—use higher power in order to work skip effectively and use higher antennas. Both of these do in fact cause additional television interference in the area of the transmitter . . . What you find working skip are the high powered stations which are using high gain antennas."

The provision in the proposal that would authorize long distance communications be-

tween licensed United States stations was *not absolutely essential* to the creation of any SSB service. Support for a change in this rule was predicated on the SSB service being restricted to those who passed an examination and knew how to operate their equipment properly and could minimize potential interference. However, skip propagation at 27 MHz only occurs at periodic intervals and the present severe cycle of maximum activity is on the decline. When propagation conditions are such that skip does not occur, no amount of transmitter power can cause it to happen; only relatively short range communications will be possible. When the periodic skip conditions do occur, long distance communications are possible with far less transmitter power than *presently* authorized in the CB Service. There is nothing the user can do about it as it is *not* a function of transmitter power and antennas.

While the skip prohibition rule is not a major factor in itself, unenforceable rules could undermine the self-discipline attributes expected in the proposed SSB radio service. When skip conditions occur, there is often no way of knowing that another station is more than 250 kilometers away unless you ask, and then you have violated the law. It may be very tempting to talk to another individual with similar interests in a different part of the country and it is difficult for most people to understand why this should be a crime. Rules governing long distance communications can be developed that are realistic and would discourage use of illegal transmitter power and other amateur-type activities, and still permit disciplined long distance communications between licensed United States radio stations.

It is *not* recommended the rule be changed for the present CB Service although the present rule is not enforced. Research does not show a single case where a licensed CB operator was cited for this violation *alone* although tens of thousands enthusiastically violate it on a regular basis when conditions permit long distance communications. It does result in these individuals concealing their identity. Many such persons operate with excessive transmitter power, interfere with other communications, dominate a channel for hours, and generally degrade the radio service. Unenforceable and illogical rules in the CB Service have contributed to disrespect for FCC regulations and to this undisciplined situation.

Mr. McKinney made false statements in support of his arguments on this matter. He also stated that higher antennas and high gain antennas would increase television interference. Fact is that the higher the antenna, the more effective the station can operate on a *local* basis in the band under consideration. The most common CB antenna, the vertical ground plane, provides a radiation pattern of approximately 30 degrees. The higher the antenna, the lower the angle of maximum radiation which would reduce the capability of a station to communicate over long distances using skip propagation. The higher the antenna, the *less* chance it will have to cause all types of interference.

Mr. McKinney also stated that high gain or beam antennas would increase interference. Although such antennas can increase the effective radiated power (erp) of a station in one direction, the maximum field strength in the area of

radiation will never be greater than the maximum found in the area covered by a ground plane vertical with the same power fed to the antenna. The beam antenna simply develops a main lobe that directs the available power in one general direction, and this factor would minimize the interference potential in all directions except the front. The beam antenna, dependent upon polarization and design, may also have a high angle of radiation that places the main lobe well above surrounding homes, wires and cables, thus minimizing interference.

INTERFERENCE, GENERAL

McKinney: . . . "But additionally, and I think much more important, is a consideration of the interference potential of this item for users of home entertainment equipment, especially television."

Commissioner Brown: . . . "CB users are not going to maintain their equipment; we have to assume that they are not, at least based on our prior experience . . . going to maintain it out of concern for interference to television . . ."

Interference to other electronic devices from radio transmitters has been and continues to be a problem. Some of the FCC people appear to be under the impression that the CB radio operators are not concerned with this. This is an erroneous concept. Millions of CB radio operators also use home entertainment equipment and other electronic devices that are subject to electromagnetic interference. Many have made an effort to minimize interference to their own equipment and that of their neighbors. The serious radio operator would hardly operate his radio station in such a manner as to incur the wrath of his own family, his neighbors, and eventually the FCC. Yes, there are those few who cause all the problems and their impact is far greater than the actual number involved.

The major question is whether authorization of the proposed SSB service will result in an increase in the amount of interference. Facts indicate a decrease in the potential for TV interference. First, the single sideband-suppressed carrier (SSB) emission does not produce the interference products generated by a comparable power double sideband (amplitude modulation) emission. The linear operation required in SSB transmitters does not produce the distortion harmonics that result when Class C amplifiers are used in amplitude modulation (AM) emission mode. The suppressed carrier in single sideband minimizes the heterodyne products that often cause interference from AM transmitters. The FCC seems strangely unable to recognize the technical differences between AM and more spectrum efficient less-interfering SSB. Increased use of the SSB emission mode could be a significant factor in the overall reduction of 27 MHz interference problems.

Another factor would contribute to a reduction in interference: Operators licensed in the proposed SSB service would know how to minimize interference (due to the educational process).

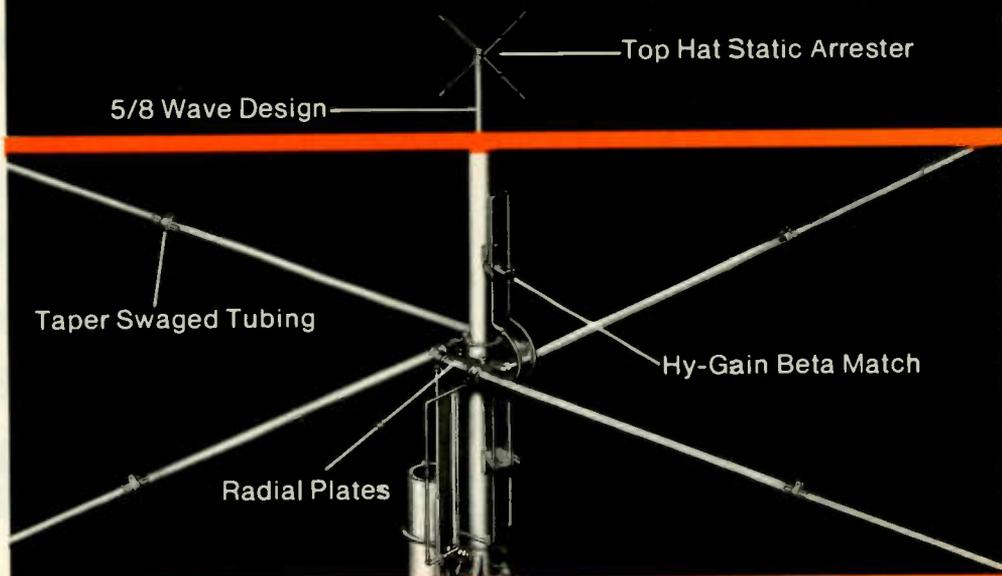
Authorization of the SSB service would solve the AM/SSB conflict problem in the CB Service which does directly contribute to interference. Conflicts result in operators using maximum transmitter power to overcome transmissions in the other emission mode. SSB operators sometimes resort to high powered equipment to overcome the interference from the heterodyne squeals caused by AM carriers, but AM operators also increase their power. These inter-mode conflicts result in interference which would be resolved if the SSB radio service is authorized.

Mr. McKinney stated, "Interference complaints are down today compared to a year ago. They have been going down for the past three years." This has occurred at a time when the skip propagation was at peak and according to Mr.

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1. Hy-Gain's pioneering innovations in CB base antenna design.

This powerful 5/8 wave base station antenna design was an original Hy-Gain concept. Efficiency is increased substantially over conventional designs. Furthermore, Hy-Gain's CB antennas are subjected to the same demanding requirements established for amateur, military and commercial antennas.

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3. Taper Swaged Tubing.

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Model 500 The Super Penetrator

- 5.3 dB gain
- 1500 watts power handling capability
- Low signal-to-noise ratio
- Compressed signal for extra power

Model 473 CLR II

This is the most copied 5/8 wave collinear antenna on the market. The CLR II achieves a powerful, no-nonsense 4.2 dB gain at the horizon, and a big 500 watts of power handling capability. This is, by far, the best value in Base Station Antennas available today.

Model 410 The Original Long John

This five-element yagi with 24' (7.3m) boom delivers an amazing 12.5 dB forward gain with 31 dB front-to-back ratio. For long distance, high powered action, this one has all other five-element yagis beat. This famous Hy-Gain Long John can handle 2000 watts of power with ease. Top quality materials and exclusive Beta Match feedpoint system with direct dc ground guarantees efficient power transfer and increases your talk power 18.4 times the normal output of your radio.

Model 542 SDB 6

Two 12' (3.7m) beams on a 14' (4.3m) cross boom for 12.7 dB forward gain.

McKinney, tens of thousands were operating on the proposed frequencies "for long range high-powered skip communications. . .". This seems to be evidence that the proposed SSB radio service *would not* increase television interference! How could a disciplined radio service with relatively low power transmitters cause additional interference?

Radio frequency interference (RFI) remains a problem with the growth of two-way radio communications and home entertainment equipment with poor electromagnetic compatibility (EMC). The problem will not be solved by attempting to curtail the public use of electronic devices. Only government regulation can cope with the overall problems of radio frequency interference. Manufacturers of electronic equipment have demonstrated a reluctance to voluntarily take the action necessary to minimize this problem. This includes the design and manufacture of home entertainment equipment which will perform without responding adversely to unwanted signals, and radio transmitters that effectively suppress unwanted spurious and harmonic radiation. Action by the Commission on Radio Frequency (RF) Interference to Electronic Equipment is overdue.

In summary, facts indicate that approval of the proposed SSB radio service would result in an overall reduction in interference. The characteristics of the SSB emission, disciplined and knowledgeable radio operators, the solving of the inter-mode problems in the CB radio service, and the eventual availability of improved equipment are the major factors to support this conclusion.

AMATEUR TRANSMITTERS

McKinney: . . . "I just simply cannot believe that the people who come in, while the man down the street has his amateur transmitter, that the new man who comes is going down to buy the 4-watt CB set. I just don't see it happening."

There is no logic to this statement! He would have the Commission believe that if the proposed SSB service were to be authorized, users would stampede to purchase amateur transmitting equipment. Those who desire to do so and can afford amateur equipment can purchase it at *this* time! Logic dictates that users would be far more likely to operate such equipment under the conditions that exist in the present CB service, i.e., the competition for operating space, the AM/SSB conflicts, than they would in a frequency band devoted exclusively to SSB operations. Adverse operating conditions often motivate operators to use excessive transmitter power. Even the highly disciplined Amateur radio service is not free from this problem on some bands. The 20-meter phone band is an example of what can happen under crowded conditions. It isn't uncommon to hear amateur operators openly state that they have a transmitter *power output* in excess of 2000 watts; a clear violation of FCC regulations. It is commonly accepted among the amateur community that an operator need at least 1000 watts transmitter *output* in order to operate successfully in the 20-meter band under certain propagation conditions.

A small percentage of the CB operators do use amateur radio equipment on the frequencies authorized for the CB service. It is unlikely that this percentage would increase if the proposed SSB service was authorized.

**To Be Continued
Next Month!**

Scanning The Energy Industries!

Electric Utilities - Nuclear - Natural Gas - Petroleum
Industry Communications --From "Sensational" To "Sensitive"!



When you stop to think about it, there's really only one topic which is assured of daily coverage in the news media, and that is energy; we hear, read, and see more about it, and are more affected by it in our lives than most of the other topics receiving heavy news coverage such as politics, scandals, sports, international affairs, crime and even the economy! Following a close second to energy in the news, and at least as important (some say even more important) is our environment and efforts to maintain its freedom from such threats as radiation leaks, oil spills, toxic gases, and other similar factors all too often tied inexorably to the

energy industries. The simple fact is we require both energy and a safe environment in order to exist!

The major energy industries now primarily affecting our lives and environment are concerned with power from petroleum, electric, gas, and nuclear sources; and a large industry and bureaucracy has been established to search for, process, and deliver this energy to the public; just as a large industry and series of regulatory agencies has also been established to keep tabs on the environment and take immediate action to avoid (and if necessary clean up) intrusions into the environment by accident or neglect from energy industries.



Large nuclear power generating facilities ("nukes") are getting to be familiar sights. This one, the Brown's Ferry facility operated by the Tennessee Valley Authority in Alabama, runs communications on a number of frequencies and lots of people wish you wouldn't listen in on them! Doesn't that make you curious?



The nerve center of the entire Tennessee Valley Authority power system is the Load Control Center in Chattanooga; dozens of communications frequencies are in use here.



Electric power utilities, such as the one which brings you electricity, all maintain emergency crews to cope with accidents, blackouts, and the adverse affects of the weather. These crews operate 'round the clock with "electrifying" communications you can hear on your scanner!



When it comes to petroleum, there are many agencies which are needed to monitor (and sometimes clean up after) this gigantic energy supplier. Oil spills in our coastal waters seem to occur with some regularity, despite heroic attempts to avoid them. When they take place, they trigger frantic communications activity on many scanner frequencies.

The energy industries, in addition to their own general operations concerned with the business of processing/delivering energy, require emergency service crews (those folks who rush in after storms, earthquakes, blackouts to put things back together again), and security forces which not only rival police departments, but which are now at the point where they are complaining that the public is listening in on their "sensitive" communications. Fact is that there is a move afoot to get the FCC to allow some of these energy related communications to be run through voice scramblers! Basically, there's a lot to listen to when it comes to all of these energy and environmental companies and agencies! More than being *just* "sensitive" in nature, it's fascinating as it is newsworthy!

Tom Kneitel has diligently and very comprehensively gathered together an *enormous* amount of valuable data relating to the communications frequencies of many thousands of energy and environmental companies and public agencies, some 20,000 frequency listings which can be monitored on scanners. These listings cover stations licensed in more than a dozen different radio services and operating in the 48 contiguous states and their surrounding waters. This cornucopia of information is in Tom's new directory entitled ENERGY-SCAN.

The coverage includes scanner frequencies used (for general operations, security patrols, emergency service repair crews, etc.) by the following energy related groups:

Petroleum Industry: Oil exploration companies, drilling crews, oilfield service companies, refineries, storage areas, dockside terminals, pipelines, tankers, offshore drilling rigs and support operations, and those who fight oilwell fires and "blowouts." Independent oil companies as well as major corporations are covered.

Electric Power: Municipal and county operated electric power utilities, electric co-op companies, commercial power utilities (large and small), federal electric power operations.

Natural Gas: Exploration/drilling, processing, pipelines, storage, liquid natural gas (LNG) operations, municipal and commercial gas utility companies.

Nuclear Energy: Research labs, suppliers and handlers of various radioactive materials, nuclear power generating facilities ("nukes"), designers and builders of nuclear power plants.

Environmental: State environmental agencies, the federal Environmental Protection Agency, oil spill cleanup operations, private environmental cleanup companies, the Coast Guard, various har-



Not only graceful to look at, but fascinating to monitor, are the many offshore drilling rigs which seem to have found their place in the energy picture. Not only the rigs themselves, but their supply vessels and helicopters are interesting scanner fare these days.



The law now states that tankers loading and off-loading oil must maintain 2-way radio communications with the shore facilities at which they are moored during the transfer; this to help avoid spills. These tricky maneuvers can be heard on scanners.



The search for and distribution of energy requires more than a dozen different radio services to handle its many needs. These include public safety, industrial, business, special emergency, maritime, aeronautical, petroleum, power utility, and other services, as well as many operations on government and other frequencies.

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SECURITY - EMERGENCY CREWS - GENERAL OPERATIONS

ENERGY-SCAN

DIRECTORY OF
SCANNER FREQUENCIES

BY TOM KNEITEL, K2AES

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NATURAL GAS
ELECTRIC POWER
ENVIRONMENTAL**

This exciting new book holds the key to tuning in on operations taking place throughout the entire energy industries. Some 20,000 listings cover the oil, natural gas, electric, and nuclear energy industries, plus environmental operations.

bor and port authorities, nuclear energy emergency operations.

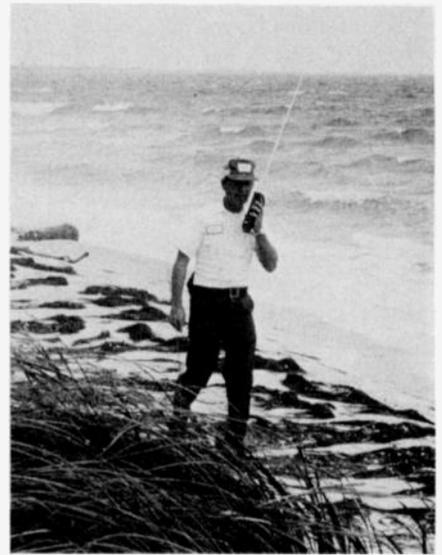
All of these listings are conveniently arranged state-by-state, with each company or agency name followed by its operating frequencies. Even frequencies in the "new" 800 MHz bands are included when applicable! A separate listing of about 170 offshore oil rigs is included, together with callsigns for those which have been assigned such identification. An introductory section explains some of the factors connected with monitoring the energy industries, and there are also illustrations of a number of QSL's received from various energy stations. All in all, it seems to be a virtually complete roundup of communications operations connected with petroleum/electric/natural gas/and nuclear energy efforts.

I was quite surprised to note the number of listings in my own area, even though I'm not located in one of the major energy states there's far more to monitor than I had imagined. Of course, when it comes to the states which can be classified in the energy-producing category, the array of monitoring delights is absolutely dazzling. However, low band skip reception has brought me distant stations from Oklahoma, Colorado, Texas, California and it's almost like being right there!

I must say that the language you encounter on a great many of these frequencies is not only unique but quite colorful (including some rather explicit remarks which are probably best left for you to experience for yourself). Doesn't sound like anything you'll bump into on any other frequencies; those guys in the oilfields are really a macho bunch!



Working hand-in-hand with the energy industries are many environmental agencies whose job it is to keep tabs on any adverse factors relating to water, air, and wildlife protection. Much use is made of communications in these efforts.



Environmental awareness is a constant job, and the frequencies used for conservation communications are hardly ever silent—buzzing away with reports from aircraft, patrol boats, and even hand-held units.

On the other hand, this is contrasted with the rather serious and "sensitive" communications encountered in connection with the security forces which patrol oil fields, power installations, refineries, and other areas which require protection. "Nukes," in particular, receive an exceptional amount of protective attention.

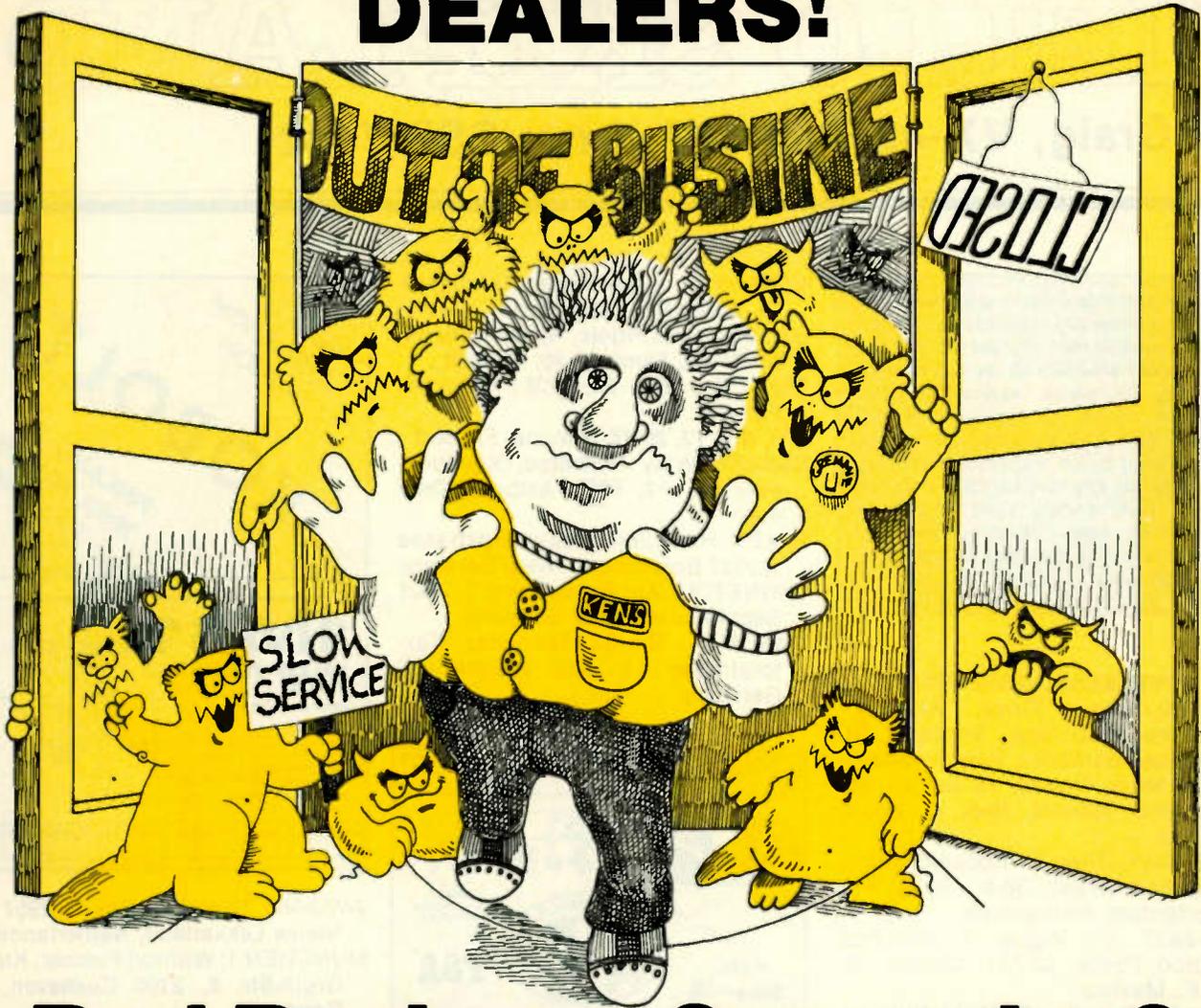
Emergency repair crews, as used by all electric power and gas utilities, as well as the pipelines carrying oil and gas across the nation make for particularly exciting listening, and their conversations concerning live wires, transformers which have either blown up or blown down, highly explosive gas leak situations, and other similar matters will keep you glued in front of your scanner. And then there are others whose job it is to attend to "problems" at nuclear facilities, or to put out oilwell fires, or mop up oil spills, or escort a tanker with volatile LNG (liquid natural gas) past a populated area—all of these communications are of genuine interest to scanner owners. Not that things need to be of major magnitude to be worth hearing, like the communications I monitored last week over one of the environmental frequencies; seems they caught a service station owner dumping used engine oil into a nearby river! Yesterday I read about it on the front page of my local paper!

All of this is part of the panorama of supplying energy to the public, and protecting the public from its own apparently insatiable need for energy. It's all there for you to hear on your scanner, and the key which unlocks the information as to just where it's all happening is Tom Kneitel's exciting scanner directory entitled ENERGY-SCAN. If you're living in the 80's you'll certainly want to be on the inside track of energy and environmental communications.

ENERGY-SCAN is sent postpaid at \$5.95 per copy. Order it from CRB Research, P.O. Box 56, Commack, N.Y. 11725.

Reviewed by Larry Johnson, KGA4JN

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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.

OVERSEAS ADDRESSES

SSB-090, Roxan Kinas, "Atlantis," Carlton Club Gap, Brighton, St. Michael, Barbados, West Indies
 IS-001, Mark Walker, 15 Baines St., Rynfield, Benoni, Rep. of South Africa
 BLUE CAT, Theo F. Roosenschoon, Tamboerstraat 36-b, 3034 PW Rotterdam, Netherlands
 SSB-2A37, Dr. Miguel A. Sanchez, Aptdo Postal 52-731, Mexico 15, D.F., Mexico
 KOBOLT, P.O. Box 9, 75501 Nurmes, Finland
 FOX HOTEL, Box 647, 26130 Rauma, Finland
 2-CV, Erkki Kahara, Lielahtenkatu 33 F 40, SF-33410 Tampere 41, Finland

SSB-9051-J, Juhani Hovi, Uikunkuja 15, 28100 Pori 10, Finland
 SSB-068, Oiva Pirjola, Ryydynkatu 64, SF-33400, Tampere 40, Finland
 MIKE, P.O. Box 24, 02361 Esbo 36, Finland
 F-B, Box 72, 26100, Rauma, Finland
 SSB-087, Willy Hyllested, Kaerlund-vej No. 12, 9000 Aalborg, Denmark
 ERLE 1, Harry Zolitz, Haidbergstrasse 1, 2352 Bordesholm, West Germany
 WINNETOU, Am Kahlenberg 2, 3301 Bechtsbuttel, West Germany
 CANON 1, Gunter Tenholter, Textorstrasse 15, 652 Worms, W. Germany

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KOBOLT

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 P.O. BOX: 9

1M61

82 RTC 5 NL 50H

FINLAND 27 Mhz STATION

MY CONDITIONS
 RECEIVED
 ANTENNA
 OUTPUT
 MIC
 TX QSL PSE
 THANKS FOR THE NICE
 QSO 73-51-88 Qp

STATION DATE TIME FREQ MODE S A S.M. JARA. QSL WA

STATION	DATE	TIME	MODE	FREQ	MY RIG	ANTENNA

Standby Channel 6

73's

ICV-BILTA TAMPERE

FSA

MONITOR ON 4

73's from PCB 133

STATION-BOXER

ROTTERDAM HOLLAND

0 MOBILE 0 DASK STRENGTH REARITY.....
 EQUIPMENT HERE.....
 ANTENNA USED.....
 TIME.....
 I HEARD YOU ON
 I WORKED YOU ON CHANNEL

2-WO-355, Tony, P.O. Box 43, 2957 ZG, Nieuw Lekkerland, Netherlands
 MUNCHEN 1, Wilfried Fischer, Klaus-Groth-Str. 5, 2190 Cuxhaven, W. Germany
 INDIA SIERRA, Sigurdur Svavarsson, P.O. Box 28, 820, Eyrarbakka, Iceland
 GIPSY LADY, P.O. Box 210, 3640 Ae Mijdrecht, Netherlands
 1-AT-116, Piero, P.O. Box 1, Fornaci Di Barga (Lucca), 55052, Italy
 LIMA-SIERRA-DELTA, Fritz, Rooseveltstrasse 3713, 4400 Steyr 00, Rooseveltstrasse 3713, Austria
 SONAR 071, Alex, Caixa Postal 18507, Cep. 01000, Sau Paulo, S.P., Brazil
 16-WR-984, Wilson, P.O. Box 1, 3870 Heers, Belgium
 BOXER, P.O. Box 3178, 3033 AD Rotterdam, Netherlands
 UNIT 75 MUSTANG, John, P.O. Box 162, 4530 AD Terneuzen, Netherlands

SMOKEY, Klaus Brodel, Waisenhausstrasse 8, 6780 Pirmasens, W. Germany
 OMEGA, P.O. Box 1243, 5438 Westerburg, W. Germany
 KURIER 04, Heinz Kuause, Schievenbalken 9, 3171 Rotgesbuttel, W. Germany
 SPEEDY, Peter Ruppel, Am Wehrgraben 4, 6303 Hungen 1, Mitgliedsnummer (4) W. Germany
 SCHNEE-WITTCHEN, Ingeborg Wilke, Schiernbalken 9, 3171 Rotgesbuttel, W. Germany
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To Station R. S. Channel
 Date Time

Base
 Skip
 Mobile
 Eyeball
 Direct

Remarks

I've heard of a skip but this is ridiculous

THAT'S A BIG JO-J

GREETINGS FROM **ALPHA 38**

CONFIRMING OUR QSO ON HRS

MODE
 AM LSB USB CW

DATE _____
 S.A. TIME _____

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BARRY GEAR, 43 TAMATEA AVE, PAMMURE, AUCKLAND 6

TO STATION

AK5361

TAIT CB 4 30'S RADIAL Q.P.
 CONFIRMING Q.S.O. ON _____
 DATE _____ TIME _____ HRS.

BASE DIRECT
 MOBILE SUP
 RELAY EYEBALL

Comments

73's 48's 88's



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 INDIA MIKE 1, P.O. Box 81, Linth 5460, W. Germany
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 UNIT 373, Thierry, P.O. Box 16, Panazol, France 87350
 HRI-AVS, Victor, P.O. Box 7697, Panama City 9, Rep. of Panama
 DELTA ELDORADO, Ivor, P.O. Box 26, Tienen 3300, Belgium
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CIRCLE 26 ON READER SERVICE CARD

Alternative

Radio

Pirates-Spies-Clandestines

by John Santosuosso

Attention DX'ers in western New York and northeastern Ontario! You should be on the lookout for pirate WETS Radio. Actually, monitors all over the United States and Canada might want to take note of this one, because WETS is a station with big plans for the future.

Claiming to be located in the "barren northern wilderness," WETS is probably broadcasting from a site near the Canadian border. The station transmits on a frequency of 1615 kHz. At the present time power is very limited—only one milliwatt. However, WETS has graduated from its original 30 foot folded dipole antenna to a 225 foot longwire. This means that one milliwatt is producing an excellent signal over several miles, and under unusual circumstances reception should be possible at much greater distances.

If you do not have any immediate success in logging WETS, you may before very long. As we said, this is a station with plans for the future. Soon, maybe even by the time you read this, it will add a 100 watt RF amplifier to vastly boost its coverage area. WETS welcomes reports and does issue a QSL card, but you will have to listen to its transmissions for details on how to verify it. Good listening, and if you hear WETS, how about letting us know about it?

While most of us normally concentrate on American pirates, during the fall and winter months the opportunities to monitor Europirates should not be overlooked. Several of these stations make special broadcasts beamed to North America, and with persistence you have a good chance to log one or more.

In North America a frequently heard European pirate broadcaster is Ireland's Radio Condor International. It uses a variety of frequencies including 6243, 6315, 6317, 11400, 11437, and 11463 kHz. The best time to try for this one is between 0400 and 1000 GMT. Many Europirates are good verifiers, and a number of American listeners can boast of Radio Condor QSL's in their collections. Since Ireland has no licensed shortwave broadcasters, a Radio Condor verification is an especially prized item. If you hear the station you can send your reception report to Radio Condor International, c/o Free Radio Campaign-Ireland, 53 Charleston Road, Ranelagh, Dublin 6, Republic of Ireland. Be sure to

enclose an envelope addressed to yourself and three international reply coupons, which can be obtained at your local post office.

Now, if you don't think an Irish pirate is a big enough challenge, you may want to go after England's European Music Radio. This one has made it all the way to the United States on a mere ten watts! Frequencies to try are 6235 and 7325 kHz. Reception reports can be mailed to European Music Radio, Kent Place, Norwell, Newark, Notts NG23 6JX, England. Again it would be a good idea to include some international reply coupons to pay the return postage.

Turning next to the clandestine scene, Radio Mujahidin Afghanistan is more than just another radio station. It is a persistent reminder that Afghan rebels are fighting for freedom against Soviet invaders. Over the whine of Russian jammers Radio Mujahidin declares the rebels' deter-



In the well equipped studio of WETS Radio are this DX-160 receiver and speaker, T250-30A frequency counter, D-104 microphone, Realistic stereo preamplifier, Sennheiser stereo headphones, and homebrew transmitter. A WETS QSL card is on top of it all.

mination to continue that struggle. The station has been transmitting on both 9710 and 15305 kHz, but for listeners in North America 15305 is probably the only usable frequency, given the current schedule. Radio Mujahidin can be heard signing on with a flute interval signal at 1600 GMT. This is followed by a brief reading from the Koran and then news and commentary. Usually the jammers will completely blot out the transmission within one to three minutes after sign on, but if you are fortunate you may find an occasional broadcast breaking through over the noise. At the present time there are no programs in English, and there is no way to verify Radio Mujahidin.

The Iranian political situation is so unstable that almost anything could happen. At least three Iranian clandestines are known to be broadcasting, and with the current conditions in that country and neighboring states more are possible. In the event that the hostage problem is settled some may cease to transmit, since it has been reported that at least one station is backed by the CIA. However, the most bizarre thing about the Iranian clandestines is the jamming on 17920 kHz. This is a frequency once used by clandestine Radio Vatan, which vacated it in a move to 15555 for its 1705 GMT broadcast. Even several months after this move Vatan transmissions on 15555 remain free of jamming, while jamming continues on 17920.

Normally listening to jammers may seem like an irritating waste of time, but the ones on 17920 are most interesting. If reception conditions are right you can hear them identifying in Morse code about every thirty seconds. Identifications which have been heard are UM and UA. In the past Russian jammers have been known to identify with U calls. Is this an attempt by the Soviets to give the appearance of being sympathetic to the Iranian revolution without actually rendering any practical assistance? No one can really say, but why bother to jam a silent frequency? Further adding to the mystery, but assisting you in your monitoring efforts, is the fact that the jammers continue to transmit long after Radio Vatan broadcasts cease on 15555 at 1800. They have been heard buzzing away as late as 2030 GMT. Now if you can get Moscow to QSL one of these you will certainly have a most unusual verification! Better not waste your postage.

Among the anti-Castro clandestines, Radio Mambi continues to be the most active. Look for it on or slightly above 7400 kHz with sign on most likely around 0200 or 0300 GMT. Cuban jammers above and below this frequency may present some problems, but usually Mambi manages to put out a reasonably good signal. All programs are in Spanish. The station has announced several addresses, so it would be a good idea to listen

EUROPEAN MUSIC RADIO

QSL

TO VLADIMIR CUCURA
 GMT. 08-13 TO 09-06
 DATE 16TH DEC 1979
 BAND 48 METRES 6235 KM.
 ANTENNA DIPOLE
 TX POWER 10 WATTS



E.M.R.
 KENT PLACE,
 NORWELL,
 HEFARK,
 NOTTS NG23 6JX.
 ENGLAND.

BEST WISHES TO YOU
 FROM US

Vladimir Cucura of Reading, Pennsylvania, received this QSL for his trans-Atlantic logging of 10 watt European Music Radio.

carefully to hear which one is currently in use. The one most recently broadcast is Apartado 6508, Altamira, Caracas, Venezuela.

Remember nothing changes as rapidly as the alternative radio scene. Time and frequency changes, the appearance of new stations, and the disappearance of old ones are all to be expected. We will have more alternative radio news next month. Readers' reports and illustrations are welcomed. Send them to me in care of S9/Hobby Radio, 14 Vanderventer Avenue, Port Washington, NY 11050.

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CIRCLE 47 ON READER SERVICE CARD

TOMCATTIN' WITH TOMCAT!

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



A reader in California called the other day to squawk about how he had just gotten over the shakes from a recent "visitation" by the FCC's avenging angel squad. He not only unwound his own long and sad tale of woe but also recounted how operators in his area had, over the months, been threatened with arrest, have been invaded by U.S. Marshals, have been forced to submit to searches of their homes, confiscation of their property, and many other similar indignities. What he called wanted to know is why this type of harassment seems to happen only to CB'ers, because nowhere else has he heard of similar techniques being used on such a large scale against licensees in other radio services.

When you stop to think about it, the wheels of this system of rule enforcement are rather oddly geared, and it does seem true that CB'ers at least appear to get dragged through them in a somewhat more dramatic and hostile fashion that is really necessary, and to a degree which is totally out of kilter with the significance of the various "crimes" with which they are charged. If one were to take a closer look at some of the steps in this process it would look all the worse.

The Rules which CB'ers are expected to follow, for instance, are stacked against us and our expressed operating preferences. Illogical restrictions against working distant stations, continuing refusal to segregate AM and SSB operations, and a myriad of technical restrictions are but a few examples of rigged regulations which are all too easily tripped over by most people taking the most sensible course towards what they feel is the maximum use and enjoyment of CB radio. While there are rules and regulations governing all radio services, none other appears so deliberately and arbitrarily set up so as to almost force the little guy into getting snag-

ged by Big Brother if he operates in a manner which appears to him to be logical.

The Enforcement, as previously mentioned, does seem to be especially harsh when it comes to the denizens of the 11 Meter band; I know of no other service where users have continually complained about FCC personnel pounding on front doors in the late night hours, where users have complained about vile remarks made to them and members of their families, where threats, deceit, and entrapment have been mentioned by licensees. And there are those who have claimed that the FCC people were into pushing and shoving their kids. One woman said that the FCC guys were hostile to her small dog because it barked at their rather rude intrusion into her home in the middle of the night.

The Trial is a total travesty and a burlesque of the administration of justice. Many people get a notice in the mail that they have to show cause why they should not be punished for breaking this or that regulation—this is a case where the licensee is assumed to be guilty and must prove himself innocent; I don't see how this fits into the concept of being innocent until proven guilty which is the way I always have heard we do it in the United States. In order to attempt to prove his innocence under these tacky circumstances the operator is often faced with the prospect of ending up in the FCC's little kangaroo "hearing" court system. Few CB'ers have ever emerged from it unscathed.

The "hearing" is presided over by a so-called "FCC Administrative Law Judge." The use of the scare word "judge" in that title is misleading since it conjures up an image of a person who is, in fact, a judge along the lines one would find in a court of law. But this FCC character is nothing of the sort, he is an FCC employee. He need not be a lawyer, nor is he elected to his office. He is simply assigned his

job at the FCC just as other employees are put into their roles. What his qualifications are for the job are obscure; since there is no jury of one's peers to render a verdict in this "hearing" or "court," the operator's fate is in this character's hands.

In the FCC's evidence which is presented, testimony is given which some have said is not 100%—well, shall we say "accurate" or "complete." The evidence is presented by FCC employees before a judge who is also an FCC employee. Take a guess at how much the defendant's word is going to stand up in such a situation. If they say, for instance, that someone was running 500 watts and that such an output causes interference, they are not obligated to bring forth a single witness to testify to the fact that the 500 watts, in fact, did actually cause interference to anybody. If they say that an operator was out of the band on a frequency assigned to another radio service, they do not have to present a licensee from that other radio service to swear that because of his operations they were unable to communicate. They do not have to prove intent to cause interference to anybody; intentions and motives are of no value in the attempt at becoming extracted from these hooks.

Justice, as you might imagine, is swift. Unfortunately it seems to consist of a rubber stamp "guilty" verdict in the large majority of instances. The "judge" sometimes appears not to have even taken the trouble to check the files for previous verdicts in similar cases to see if his decision is consistent with established FCC policies! Some might try to appeal his decision, if they are told how to do it, in sufficient time to file the appeal.

The *Punishment* may consist of the loss of the "defendant's" license, and/or a fine which somehow seems to be roughly equivalent to the cash value of equipment which they have confiscated from him; and they will accept the confiscated equipment in lieu of cash payment of the fine. You may be wondering about what happens to the confiscated equipment which the FCC retains; so do many people. I do not have an answer; I have been given several conflicting answers to that question.

Loss of license usually means that it will be difficult, if not altogether impossible, to obtain an FCC license of any type at any time in the foreseeable future. Should a license exist in other non-CB services (such as in the Amateur service), invariably the other license or licenses are also revoked because the FCC has determined that the defendant isn't a suitable for the honor of being an FCC licensee.

And, after all is said and done, the question still remains as to how much actual harm or damage to any other person or persons was done by the "convicted" CB'er during the peak of his supposed transgressions. Has the string of events "fit the crime?"

It seems to me that the nightmare which so many have faced during this process scarcely is appropriate for people caught operating on otherwise unused frequencies which many people in the FCC (such as the Private Radio Bureau) have come out and said should be turned over for personal communications! The only FCC folks who seem to be against the idea are the ones who enforce the "rules" and run people through the mill of instant justice! Oh yes, other favorite targets include people who run more than the allowed 4-watts on 27 MHz; their operations *could* cause interference; although 2,000 watts PEP on the adjacent 10 Meter Amateur band is permitted without such fears.

You say they drag people in for shooting skip? Again, it has been deemed "verboden" on CB while other radio services depend upon it, and despite the fact that the frequencies which CB has been using for more than 20 years are rich with ionospheric phenomena; also despite the fact that the FCC's Private Radio Bureau suggests OK'ing it for CB'ers while the enforcement troopers are against it!

What about people who don't use their assigned FCC callsigns? If you tune the marine, aviation, mobile telephone and other communications bands you will find that such callsigns are seldom heard, and in some instances they aren't even required to be used! On the CB channels such a transgression makes food for the vultures!

Somewhere along the line some of the folks at the FCC have lost sight of the fact that those whom they harass with so much enthusiasm aren't criminals. Mostly they are dealing with the hard working guys of the world who seek to take a few minutes out from the rat race to relax and chat with others who share their own interests. They have no desire or intent to cause interference (and, in fact, if weighed against other sources of RF-caused interference, they probably cause less, based upon a percentage of the number of operators).

These same people are equally ready to vigorously devote their experience, equipment, time, and personal safety (at no financial benefit to themselves) for the good of the community at times of disaster and emergency. These are the people who have risked (and sometimes lost) their lives in those efforts.

These are not criminals, as the FCC enforcement people would like all to believe. To treat these peo-

ple in such a manner is a disgrace! A public agency whose hierarchy tolerates this can only be assumed to have leadership which is unaware of these matters, or else which supports them. In either case, these activities should not be permitted to continue without the agency having to answer to some higher responsible authority.

Public agencies have always seemed to end up with more than their fair share of Little Tin Gods who have drifted into positions of authority; frustrated, insecure, and with a definite desire to screw the little guy whenever they can. I dunno, maybe they're henpecked at home or maybe it's what finally became of those kids you once went to school with who used to get their jollies by pulling the wings off flies.



FCC agents inventory some of the equipment which was confiscated during a raid. Inasmuch as the equipment in question was manufactured and sold legally, some have questioned the FCC's right to seize it, and the manner in which they do it. Most people never get their property returned, through one FCC ploy or another. Somewhere in a remote FCC warehouse there is probably a night watchman with the most fantastic DX station in the world.

What's happening now is an undercurrent which was obviously brought about by the fact that the little guy is tired of living under such threats and, like the man in the movie said, he's angry and isn't going to take it any longer. I have noticed a definite increase in incoming mail and landline calls commenting on these matters; most communications contain suggestions for dealing with it and also note that the attitudes expressed by the FCC's Field Operations Bureau at the recent SSB-frequency hearings reveal that there is little hope for any reasonable regulations or treatment for 11 Meter operators by the FCC.

The incoming suggestions are widely varied.

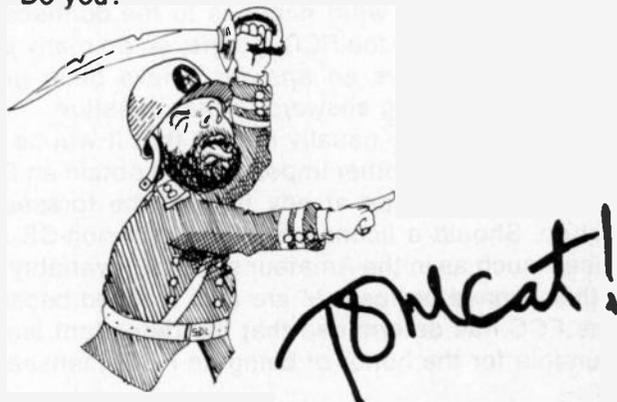
While one reader asks that I organize a postcard writing campaign, others say that all CB licensees should mail their licenses back to the FCC and then commence unlicensed operation; some operators are planning to circulate petitions demanding a Congressional investigation of the FCC—as I said, it's wide and varied. Some suggestions are not only hysterical and illegal, others are impractical. But somewhere there should be an effective, legal, and logical way of stopping the little guy from being such an easy target.

What I will leave you with is a comment sent to me by "Dr. Rigormortis;" he's been around for many years and is a good barometer of what's taking place on the band. His letter states, in part:

"Ponder, if you will, the conditions that gave fuel to our separation with England some 200 years ago . . . taxation without representation was a crucial issue then . . . and one of the most fundamental building blocks in the foundation of this nation . . . yet, we, the people, the citizens engaged in non-commercial radio transmissions, are subjected to search, seizure, monetary liability, and even imprisonment through what can barely be ascribed as due process of law. With the exception of actual imprisonment, all of the fates are possible and do happen without due process . . . and by a federal police force! Taxation without representation; are not conditions now and 200 years ago similar in many ways? Give this food for thought."

The FCC can, if it will, continue to rumble along its present course of action—deregulating many of the commercial radio services while simultaneously tightening its claws on the throats of the little guys within its domain. I do *not* see that their course of action will eventually be of service to themselves, to the public, or to the cause of better communications.

Do you?



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CANADIAN NOTES



By Lynn Tyler, XM17-294 (HOT LIPS)

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

What is an emergency? An emergency is an unexpected event. It may not necessarily be a matter of life and death. A situation that is an emergency in one location may not be an emergency in another.

CB radio is a valuable means of communication between the traveling motorist and law enforcement officers. Although Channel 9 is the designated emergency frequency that should be used to report accidents which require quick assistance, such is not always the case. There may be another channel in your area to report such emergencies. Remember, if you don't receive a reply on Channel 9, or any other monitor channel in the area, just flip around the dial and no doubt you'll find someone modulating somewhere.

Channels 13 and 23—if you are ever asked to vacate Channels 13 or 23 because of a *declared* emergency, do so immediately. The following quoted paragraphs were issued by Communications Canada and became effective as of April 1, 1977:

"In order to insure the availability of channels for essential rescue operations in any emergency, this region, comprising British Columbia and Yukon Territory, is designating two channels which can be pre-empted from normal GRS (General Radio Service) use for the period of the emergency. These are Channels 13 for marine emergency operations and Channel 23 for land emergency operation.

"What type of emergencies? The pre-emption of these channels will only be made in cases of recognized emergencies, which are defined as situations which represent a threat to human life, property, or the environment, and require immediate or extraordinary steps to resolve them. The declaration of such an emergency must be made by responsible municipal, provincial, or federal officials, who will also authorize pre-emption of the appropriate channels."

"Procedures for channel pre-emption: The procedure for channel pre-emption will be as follows—a designated emergency officer will transmit a message on the channel, identifying himself and specifying the nature, area and probable duration of the emergency pre-emption. During the period in which the pre-emption is in effect, the channel will *not* be used for normal GRS use.

"Liability for channel misuse: Departmental monitoring stations will assist in the enforcement of this new procedure by monitoring the emergency channel (13 or 23) usage. Anyone deliberately causing interference to a pre-empted channel is liable to suspension or loss of his or her license."

In the course of a declared emergency, and in order that you may more freely understand the workings of the Search and Rescue Service (PEP—Provincial Emergency Programme), I have quoted the following:

Provincial Emergency Program Search & Rescue Policy

"In an operation, the following procedures should be followed by all concerned:

Police

"When assistance from the Emergency Program Rescue Service is required, contact the Municipal Emergency Program Coordinator (MEPC). In the absence of the MEPC, contact his alternate, as per local arrangement.

"The senior police official shall be responsible for the extent of the search and/or rescue operation, including the Municipal Emergency Program participation.

Municipal Emergency Program Coordinator

"Immediately upon request from the police, contact the head of the rescue service. Make arrangements for registering all Provincial Emergency Program volunteers called out for the operation.

"The MEPC is to maintain liaison with the police (searchmaster) to keep fully informed. If facilities

outside the scope of the municipality are required, the MEPC will contact the Zone Coordinator.

Rescue Leader

"Once a search is underway, the Rescue Leader is responsible to the Searchmaster (police). Any supply problems should be taken up with the Searchmaster and through him to the MEPC.

"If, for any reason the MEPC has not been alerted, the Rescue Leader must insure arrangements are made to notify the MEPC as soon as possible and that proper registration is carried out."

When one has to report an emergency situation on Channel 9, the information should be as accurate and concise as possible. Some things one should report on Channel 9 are:

- traffic accident
- any hazardous road conditions
- stranded motorist (including yourself)
- high speed or reckless driving (probably intoxicated driver)
- an ill or injured person
- drowning, heart attack
- downed power line
- fire
- crimes of vandalism

EMERGENCY REPORTING PROCEDURES (HAND)

1. Use plain English. (CB lingo and the 10-code are a no-no. They may have their place on other channels, but not on the emergency channel.)

2. Indicate the area you are in and wish to contact on your first call. (Ex.—"Trail Smokey Control, I have an emergency to report.") This is very important, as "skip" conditions most often transmit your call a long distance and if you don't indicate the area you wish to contact, you'll have monitors answering you in Skookumchuck.

3. Speak clearly and reasonably slowly. The monitors will be writing down the information you are giving them.

4. If you have a power mike and it's turned up too high, turn it down. If it is up past its peak of modulation it will cause overmodulation and the monitor will not be able to understand you. Shouting into the mike or holding the mike too close to your mouth will produce the same result.

5. Requests for radio and time checks are not allowed on Ch. 9.

6. Do try to remain calm. The more you keep your wits about you, the sooner help will be on the way.

7. Keep in mind that the monitor who takes your call is trained not to lose his or her head; however, I'd like to point out that not all operators on Ch. 9 have been trained. The voice you will be speaking to will, if the person has been trained, remain impersonal. Since you, who are at the scene, are possibly in a state of shock (witnessing a bad accident can

be traumatic), it would be something else again if the monitor became totally involved.

8. If you do come upon an accident and intend on reporting it, pull over to the side of the road and stop if at all possible, as the monitor can hear a non-moving vehicle much better than a moving vehicle.

9. Before keying the mike, take a moment to look over the situation. The monitor will ask you questions and precious time will be lost if you "have to go and check."

Some of the questions you will probably be asked are:

1. *The location of the accident?* Look about you for landmarks, crossroads, streets, etc.

2. *Direction?* Eastbound or westbound lane, northbound or southbound lane.

3. *How many and what type of vehicles involved?* (i.e. - van, 4-wheeler, etc.).

4. *Are there injuries?* If so, how many persons injured? Is an ambulance or wrecker needed?

Make a habit of noting license plate numbers. When reporting an accident to the monitor, as well as answering the routine questions, you will be asked your identity and either the legal call numbers issued to you by Communications Canada, your "handle" or your name.

Finally the monitor will ask you to "stand by." Please do not leave the channel (or area) until the monitor informs you that your call has been reported. There have been instances when the RCMP required more information, and the individual who reported the accident had left the scene, thus delaying much needed assistance.

So please, when reporting an accident, stay at the scene, even if you are going to be late for a date, appointment, or the feeding of your pet rock! Once you have reported the accident and the monitor has replied that your call has been reported, you are under no obligation to remain at the scene if you do not wish to do so, unless the police have requested it by way of the monitor.

EMERGENCY REPORTING PROCEDURES (MARINE)

The following information will be asked of you when reporting a marine distress call:

1. *Exact location of distress vessel?* Cross reference by landmarks, etc.

2. *Nature of distress?*

3. *Are you in immediate danger?*

4. *Master's name?*

5. *Number of people on board?*

6. *Name of vessel and registration number?*

7. *Length of vessel and color?*

8. *Port of origin?*

9. *Port of departure?*

To each and every one of you, all the best for the New Year.

THE MONITOR POST

RICK MASLAU/KNY2GL SCANS THE CHANNELS

Scanner owners interested in monitoring the behind-the-scenes communications of federal agencies were on the inside track if they happened to be within monitoring range of the missile accident which took place at Damascus, Ark., last September.

With debris and litter scattered over a wide area in the aftermath of the fuel blast, military personnel were faced with the task of recovering the Titan II's warhead. Neither the Pentagon nor the Strategic Air Command were in a mood to immediately comment upon the status of the warhead, or if rumors were true that it had been skyrocketed several hundred feet away from the blast.

A number of readers knew where to tune their scanner to listen to what was taking place. Via CB frequencies and "eyeball QSO's" word quickly spread throughout the area as to which frequencies were offering *this* or *that* type of area military communications. Eventually the information ended up at a local newspaper which promptly decided that it could garner more information as to what was taking place right off the scanner than they could from the doubletalk they were receiving via statements made by the government.

They soon realized that the warhead, for a time, was actually lost!

Their transcripts (later published) included the following transmissions heard over their scanner:

"Air Force to Command One. Anybody that goes along that area now, have them look around to see if they can pinpoint the warhead."

"Roger, I understand. Is there any danger as far as approaching it and radiation?"

"At this particular point, it's unknown, but no one thinks so at this point."

Even after these communications, state officials were still left in the dark as to the full info on the warhead, its location, its status—they were not even sure that the warhead had been lost, as had been rumored.

Of course, the nitty-gritty of what was taking place was known on an up-to-minute basis by all scanner owners who had the necessary data on where to listen—same as those who were tuned in at Three Mile Island, Mt. St. Helens, the Cuba-Miami boatlift, the riots at the camps where the Cubans refugees were being processed, and at the

many other "happenings" which required a large and sudden increase in the amount of government communications.

Having a scanner has the potential of offering you an enormous amount of information on "what's really happening" but only if you have the information on where to listen for the communications you want to hear.

FCC REPORT ON LAND MOBILE SPECTRUM UTILIZATION

The FCC has released another in a series of spectrum occupancy reports describing the measured activity on land mobile radio channels in the major urbanized areas. The current release, *Land Mobile Spectrum Utilization, San Francisco, CA and Chicago, IL*, (FCC Report No. PRB/RDL 80-01, August, 1980), summarizes the activity measured on 1,704 land mobile channels in San Francisco and 1,596 channels in Chicago.

The report includes an analysis of monitoring data collected in the San Francisco area from March 12 to March 23, 1979, and in Chicago from April, 1978 to July, 1979. The report describes how the monitoring was done and how the data were analyzed. The extent of channel utilization is defined in terms of four "occupancy categories" (zero, low, substantial and very high), concerning land mobile channel usage from 25 to 855 MHz.

Radio channels with "zero" and "very high" occupancies are identified, and the report includes tables and graphs which show the distribution of frequencies by channel occupancy.

The report also describes a special monitoring project which measured the activity on 800 MHz conventional channels in Chicago. This special monitoring was conducted at three different times over a 15-month period, and the growth in 800 MHz usage in Chicago during that period is indicated.

Copies of the report are available from the Private Radio Bureau, Rules Division, Room 5202, 2025 M Street, N.W., Washington, D.C. 20554.

A limited number of copies will be made available at these Commission field offices:

San Francisco District Office, 323-A Customhouse, 555 Battery Street, San Francisco, CA 94111 or; Chicago District Office, 230 South Dearborn Street, Room 3940, Chicago, IL 60604.



Among the features of the new Bearcat 160 scanning receiver is a completely digital "flat plane" keyboard which controls all radio functions, including volume, without knobs. The new radio also represents a breakthrough in price/feature value, offering a full feature synthesized 5-band scanner with digital frequency readout for under \$280 list. Scanners, were introduced in 1968. In that brief time they have captured over 7% of total U.S. households, with a much higher percentage penetration in some geographic areas including the northeast and midwest U.S.

EMERGENCY CHANNEL REPORT

A while back this column mentioned the availability of a handy listing of more than 30 nationally used emergency communications frequencies in the fire, police, aviation, maritime, auto emergency, etc. radio services. Combined with this listing, we mentioned, was the "10-code" version most frequently encountered as being in use by police and other public safety agencies across the nation (although, needless to say, many agencies have made up their own unique versions).

This information, we mentioned, was made up by CRB Research, a leading publisher of scanner data, and provided to us with their compliments so that we could offer the material to any of our readers who would be interested in having the useful data. The response was so overwhelming that we ran out of the listings in short order.

We do have a new supply of these listings which we can make available to our readers at no cost. If you don't yet have one, we think you'll find it to be a worthwhile addition to your scanner operations. If you'd like to have one, send your request to: The Monitor Post, c/o S9/Hobby Radio Magazine, 14 Vanderventer Ave., Port Washington, NY 11050. All requests *must* be accompanied by a stamped (U.S. stamps only, please) self-addressed #10 (long size) envelope for us to send out the material; unfortunately we are unable to supply the listing if the required return envelope is not included. I might add that despite this same requirement, the last time we offered this data, a number of people asked for the list and did not include their return envelope. I was unable to accomodate their requests. Inasmuch as this is a popular item I expect that my supply will be used up pretty quickly, so I suggest that you send in your request as soon as you can.

DIGITAL OPERATIONS IN POLICE AND FIRE RADIO SERVICES

The Commission has granted a request by the Associated Public Safety Communications Officers, Inc. (APCO) to require prior frequency coordination for changes in existing systems to authorize the use of digital voice emissions (F3Y) in channels allocated to the Police and Fire Radio Services.

APCO pointed out that the FCC had recognized the need to coordinate digital operations with existing analog systems when it adopted the authorization of digital voice emissions permanently in the Police and Fire Radio services, APCO requested that it add appropriate language to the rules to make explicit this need for prior frequency coordination. The FCC concurred.

MOBILE RADIOS ABOARD AIRCRAFT IN 470-512 MHZ BAND?

Uncle Charlie denied a request for rulemaking by Los Angeles County to permit use of mobile radio units aboard aircraft in the Los Angeles area on UHF-T shared frequencies.

Los Angeles sought an amendment to Part 90 of the rules to enable public safety systems to use aircraft to supplement land mobile systems authorized in the 470-512 MHz band.

The Commission noted that in Docket 18262 it had determined that it was necessary to provide protection from interference to television channels 14-20. Therefore, a highly structured frequency sharing plan had been adopted which confined base stations to within 50 miles of the geographic center of 13 major urban areas and mobile stations to within 30 miles of their associated base stations.

Later, a rule against operation of mobile units aboard aircraft was added because of the difficulty of confining aircraft to the geographic areas where the frequencies were available for mobile use and to the antenna height limitation the FCC had imposed to prevent interference to TV stations.

However, the Commission noted that some Los Angeles agencies have been authorized to use mobile units on some public safety aircraft under rule waivers granted by the Private Radio Bureau.

Monitoring the following frequencies

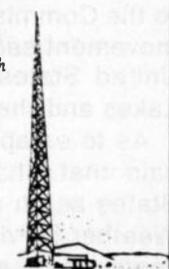
150KHz-30MHz/30MHz-50MHz / 114MHz-174MHz/161MHz-450MHz-470MHz/470MHz-512MHz
AMSSB / UHF-Lo / UHF-Hi / UHF-Gov't / UHF-Lo / UHF-Hi**

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VOICE AND FACSIMILE WEATHER BROADCASTS ON CHANNEL 17

The FCC amended its rules effective July 14 to permit public coast stations on the Great Lakes to transmit weather broadcasts on VHF Marine Channel 17 using both voice and facsimile.

Lorain Electronics Corporation (LORAIN) has provided this broadcast service for the past 30 years on its public correspondence channel. With the automated public correspondence system on the Great Lakes and the increase in traffic, LORAIN found that the 80 to 90 minutes it was dedicating per day to weather broadcasts was limiting its ability to provide subscribers with satisfactory public correspondence service.

The Commission chose Channel 17, which is assigned for State Control uses, since there was a limited number of assignments on the channel and only one assignment on the Great Lakes to the state of Indiana at Portage. Any future requests for Channel 17 on the Great Lakes could be coordinated, the Commission said, and any sharing arrangements can be determined, if necessary.

Comments were received from LORAIN, Lake Carriers Association (LCA) and the United States Coast Guard (USCG). LORAIN stated that the weather broadcasts on both voice and facsimile will provide navigational information in more desirable format. Supporting the proposal, LCA, an association of the American flag Great Lakes vessel industry, said that weather broadcasts are considered essential, but availability of public correspondence channels is equally so.

The USCG opposed the proposal, saying that it affected Maritime Mobile Communications by further derogating Appendix 18 frequencies and established a weather broadcasting service on those frequencies without an agreed plan for weather dissemination for government and non-government stations.

Fourteen Appendix 18 simplex frequencies are allocated internationally for port operations, the United States having authorized only five. (In simplex operation a station transmits and receives alternatively on the same frequency.) The USCG noted that any new authorizations for simplex frequencies should respond to the needs of the mariner affecting ship movement and safety.

The USCG said it will soon be sending requests to the Commission for additional channels for ship movement services in waters common to both the United States and Canada—Puget Sound, Great Lakes and the St. Lawrence Seaway.

As to establishing a weather service, the USCG said that Channel 15 is allocated in the United States as an environmental channel, the National Weather Service (NWS) continuous weather broadcasts meet needs of mariners and, if there is a fur-

ther requirement, the USCG and NWS should be parties to planning for such.

The Commission noted that, since weather broadcasts are transmit only, there is no further derogation of the Appendix 18 frequencies than now exists. It said that Channels 11, 12 and 14, which are being used on the Great Lakes and St. Lawrence Seaway for navigational communications, should satisfy any new USCG requirements.

According to the Commission, the NWS continuous weather broadcast is not a marine weather broadcast but one for the general public. The NWS service meets the needs of mariners only where a boating area coincides with the broadcast area of the station.

BIO-MEDICAL TELEMETRY COMMUNICATIONS ON VHF BAND PROPOSED

The FCC proposed permitting 5 minute (max.) bio-medical telemetry communications on the VHF band in rural areas.

Bio-medical telemetry is a widely used medical diagnostic technique that is accomplished through radiocommunications. The technique is used to permit diagnosis of patients before they reach the hospital. A patient's vital life signs are monitored by use of such devices as electrocardiograms. These measurements are then transmitted by telemetry to a hospital-based physician who makes a diagnosis and prescribes appropriate treatment.

The action was in response to a petition by the State of Missouri Department of Social Services.

Although Missouri suggested allowing VHF bio-medical telemetry in both the local government and special emergency services, the Commission said it would propose limiting it to the special emergency services where the rules provide emphasis and flexibility for development of medical communications that can be fully interfaced within regions and from one area to another.

The Commission also proposed only a limited number of the frequencies that Missouri had suggested for bio-medical telemetry operation. It said most of the frequencies Missouri suggested were shared for non-medical services operations including school buses, veterinarians, beach patrols, etc. Licensees of medical services systems, therefore, would have no practical means to control these diverse types of operations so as to avoid intersystem interference to or from telemetry operations. It said it would limit the bio-medical telemetry operations to the five frequencies that are available exclusively for medical services operations—155.325, 155.340, 155.355, 155.385 and 155.400 MHz.

The Commission proposed permitting this use only in areas that are more than 75 miles from the center of urban areas of 500,000 or more.

INVESTIGATION OF THE EFFECTS OF SKIP INTERFERENCE ON OPERATIONS AT 35 MHz IN THE DOMESTIC PUBLIC LAND MOBILE RADIO SERVICE

The FCC's Office of Science and Technology announced the limited availability of Technical Memorandum No. 12 "Investigation of the Effects of Skip Interference on Operations at 35 MHz in the Domestic Public Land Mobile Radio Services."

In FCC Docket 80-189 it is proposed to adopt rules which would permit one-way signaling (paging) stations to be licensed on certain 35 MHz frequencies. The frequencies involved are allocated exclusively to two-way radio telephone service under the present rules.

It is proposed that the zoning restrictions be removed, and hence there is concern about the possibilities that skip interference may be harmful to paging systems operating under the liberalized rules. In addition, since it is proposed to permit two-way operations to continue, there is concern about the possibilities for harmful skip interference to existing systems.

EXPERIMENTAL LICENSES

KF2XFE, SPERRY RAND INTERNATIONAL TRADE, INC., Eagan, Minn. To operate on 10715, 10935, 11055 and 11155 MHz to develop equipment to be exported.

KE2XHH, STATE OF WASHINGTON, Olympia, Wash. To operate on 401.803 MHz as required by National Environmental Satellite Service.

KF2XFP, NORTH CAROLINA STATE UNIVERSITY, Raleigh, North Carolina. To operate on 72.5, 72.6 and 72.7 MHz to measure ocean surface gravity waves using a disc-shaped buoy.

KF2XFR, KF2XFS and KF2XFT, THE DeLAVAL SEPARATOR CO. To operate on 27.12 MHz and 48.0 kHz to develop a system to be used by farmers. Locations are Altura, Minn.; Manquin, Va.; and Dryden, New York respectively.

KF2XFX, SHAKESPEARE CO., Newberry, South Carolina. To operate on 293 and 323 kHz as required by U.S. Govt. contract.

KF2XGF, MOTOROLA, INC. Sesser, Illinois. To operate on various discrete frequencies between 460.9375 and 466.3625 MHz to demonstrate the feasibility of multi-channel communications using one radiax cable in an underground mining complex.

KF2XGI, TEL-PAGE CORPORATION. Rochester, New York. To operate on 27.225 MHz for demonstration purposes.

KF2XGK, THE JOHNS HOPKINS UNIVERSITY, Dania, Florida. To operate between 156-162 MHz band as required by U.S. Government contract.

KF2XGL, MOTOROLA, INC., Washington, D.C. To

operate on 888.990 MHz to conduct propagation tests and develop communications equipment.

KF2XGN, BRISTOL ELECTRONICS, INC. Medford, N.J. To operate on 27.47, 31.24 and 31.96 MHz to determine performance, quality, range, level, and best antenna locations for bus operation.

KF2XGQ, KF2XGR, KF2XGT, TERRA CORPORATION, Granted for the purpose of gathering data for a research project: 160.425 & 161.385 MHz—Roosevelt Peak, Washington; 160.515 MHz—Four-mile Canyon, Washington; 160.995 MHz—Alder Ridge, Washington.

KF2XGU, SYSTEMS CONSULTANTS, INC. San Diego, California. To operate on 45.18 and 46.02 MHz to test meteor scatter communication system.

KF2XGV, SYSTEMS CONSULTANTS, INC. Vallejo, California. To operate on 45.18 and 46.02 MHz to test meteor scatter communication system.

KF2XGW, KAY RAY, INC. Arlington Heights, Illinois. To operate on 151.625 and 459.500 MHz for conducting RFI susceptibility testing of electronic equipment.

KF2XGX, ACOUSTIGUIDE CORPORATION. New York. To operate between 151.625 and 154.600 MHz band to test and evaluate low power wireless microphone transmitters and associated receivers.

KF2XGY, DIMETRICS, INC. Sepulveda, California. To operate on various frequencies between 467.750 and 467.925 MHz to establish reliable communications between a computer in the welding system console and a pendant mounted computer by a welding operator, when a number of welding systems are in operation simultaneously at the same location.

KF2XFI, ITT MACKAY MARINE, Continental United States. For the purpose of making equipment demonstrations for sales purposes using frequencies specified in Parts 81 and 83 of the Commission's Rules.

KF2XFL, GENERAL MOTORS RESEARCH CORP., Mesa, Arizona. To operate on 90.0, 96.0 and 106.0 MHz to conduct experimental program dealing with FM reception problems in moving vehicles.

KF2XFM, GENERAL MOTORS RESEARCH, Galveston, Indiana. To operate on 89.0, 96.0 and 106.0 MHz to conduct experimental program dealing with FM reception problems in moving vehicles.

KF2XFN, BUTTONWOOD COMMUNICATIONS CORP. Staten Island, New York. To operate on various discrete frequencies between 457.5375 and 469.9625 MHz to develop low power UHF duplex communication devices.

KF 2XFA, GENERAL ELECTRIC RADIO SERVICES CORPORATION, Hendersonville, NC. To operate on 467.7625, 467.7875, 467.8125 and 467.9385 MHz to develop a new lighting fixture

utilizing efficient high intensity discharge lamps.

KF2XIN, ANDERSON MAVOR (U.S.A.) LIMITED; Zelenople, Pa. Station to operate on 151.520 and 158.385 MHz to demonstrate equipment.

KF2XIV, SOLFAN SYSTEMS, INC. Mountain View, Calif. Station for demonstration of equipment for sales purposes.

KF2XIW, BOYS TOWN INSTITUTE FOR COMMUNICATIONS DISORDERS IN CHILDREN, Omaha, Neb. Station to operate on 43.64 MHz to develop and test a digital encoded alerting system for the deaf.

KF2XIX, LITTON SYSTEMS, INC., Van Nuys, Calif. Station to operate on various discrete frequencies between 232 and 8162 MHz as required by U.S. Govt. contract.

KF2XJC, UNIVERSITY OF ALASKA, Yakutat, Alaska. Station to operate on various discrete frequencies between 2796 and 19280 kHz as required by U.S. Govt. contract.

KF2XJD and KF2XJE, UNIVERSITY OF ALASKA, FAIRBANKS AND Wrangell Mountains, Alaska. Same as above.

KF2XJF, THALNER ELECTRONIC LABORATORIES, INC. Ann Arbor, Mich. Station for demonstration of equipment to be licensed under part 94 of FCC Rules.

KF2XJG, JP ASSOCIATES, INC., Torrance, Calif. Station for field strength survey and equipment demonstration of equipment to be licensed under Parts 21, 74, 78, and 94 of FCC Rules.

KF2XJJ, BROADCAST CONSULTANTS CORP. Leesburg, Va. Station to demonstrate equipment for sales purposes to be used under Part 74 of the FCC Rules.

KF2XJO, SIEMENS CORP. Valley Stream, New York. Station to develop the SICARD System which is a device concerning automatic identification system.

KF2XHP, ITT DECCA MARINE, INC. Jersey City, N.J. To operate on frequencies listed in FCC Rules 83.351(a) and 81.304(a). After repairs and calibration of equipment they will be tested before being released.

KF2XJS, R.A. ISBERG, Emeryville, Calif. Station to operate on frequencies between 482.4375 and 490.7125 MHz to develop and test multi-channel two way radio signal boosters for use in subways, tunnels, mines, etc.

KF2XJT, R.A. ISBERG, Oakland, Calif. Station to operate on discrete frequencies between 43.78 and 458.150 Mhz to develop and test multi-channel two way radio signal boosters for use in subways, tunnels, mines, etc.

KF2XJV, REPCO, INC., Orlando, Fla. Station to operate on frequencies between 811.9875 and 860.9875 MHz for development of equipment to be used in the 800 MHz band.

KF2XJW, REPCO, INC., Orlando, Fla. Station to operate on frequencies between 809.8875 and 866.1000 MHz band for development of equipment to be used in the 800 MHz band.

KF2XJX, SBE, INC., Watsonville, Calif. Station to operate on 468.60 MHz to develop a number of new signaling and repeater remote control and management products.

KF2XJY, BUTTWOOD COMMUNICATIONS CORP., New York City, New York. Station to operate every 25 kHz in three radio bands beginning with 457.5375, 460.8875, 465.8875 MHz and ending with 460.6375, 464.9625 and 469.9625 MHz to develop a low power UHF duplex communication device.

KF2XJZ, Energy Management Corp. San Bernardino/Riverside, Calif. Station to operate on 154.45625 MHz to provide communications essential to a research project.

KG2XAB, ELECTROCOM, INC. Station to operate on 435 MHz for experimentation with an alternate carrier frequency to deploy the Range Measurement System presently used.

KG2XAC, LITTON SYSTEMS, INC., Colorado. Station to operate on various discrete frequencies between 2782 and 23660 kHz as required by U.S. Govt. Contract.

KG2XAD, NORTHERN ILLINOIS UNIVERSITY, Illinois. Station to operate on 403 MHz for the purpose of studying the diffusion capabilities of the atmosphere to air pollutants.

KG2XAF, B.C.I. GEONETICS, INC., Montana. Station to operate on 43.04 MHz to provide communications essential to a research project.

KG2XAG, SHAKER RESEARCH CORP. Ballston Lake, N.Y. Station to operate on 902-928 MHz band as required by U.S. Govt. contract.

KG2XAH, GENERAL ELECTRIC RADIO SERVICES CORP., Flint Michigan. Station to operate on 467.7625, 467.7875, 467.8125 and 467.8375 MHz for development of a new lighting fixture utilizing efficient high intensity discharge lamps.

KG2XAJ, GTE PRODUCTS CORPORATION, Mountain View, California. Station to operate on 25.17, 35.5, 48.5, and 72.5 MHz to test equipment being exported to Federal Republic of Germany.

KG2XAK, LITTON SYSTEMS, INC., Colorado Springs, Colorado. Station to operate on 30.1, 46.7, and 49.65 MHz as required by U.S. Govt. Contract.

KG2XAQ, EATON CORP., Oakland County, Michigan. Station to operate on 290, 300 and 310 MHz for a developmental program involving a low tire pressure monitoring device for use as a low power device in accordance with Part 15.

KG2XAR, TRANS-TECH CORPORATION, Minneapolis, Minn. Station to operate on 27255 kHz to develop prototype models of a radio directional homing system.

The following stations were granted the STATE OF CALIFORNIA at locations shown on frequency 401.7895 MHz for data collection using the National Environmental Satellite:

- KE2XHO, Quaking Aspen, Calif.
- KE2XHQ, Crabtree, Calif.
- KE2XHR, Big Meadows, Calif.
- KE2XHS, Charlotte, Calif.
- KE2XHT, Tuolumne, Calif.
- KE2XHU, Paradise, Calif.
- KE2XHV, Alpha, Calif.
- KE2XHW, Hernandez, Calif.
- KE2XHY, Quartz Hill, Calif.
- KE2XHZ, Brazie Ranch, Calif.
- KE2XIA, Weeds, Calif.
- KE2XIB, Alturas, Calif.
- KE2XIC, Big Valley, Calif.
- KE2XID, Grasshopper, Calif.
- KE2XIE, Westwood, Calif.
- KE2XIF, Burney, Calif.
- KE2XIG, Whitmore, Calif.
- KE2XIH, Camp Gulch, Calif.
- KE2XII, Shake House, Calif.
- KE2XIJ, Baker, Calif.
- KE2XIK, Thomas Creek, Calif.
- KE2XIL, Butte Meadows, Calif.
- KE2XIN, Cohasset, Calif.
- KE2XIO, Parkfield, Calif.

- KE2XIP, Las Tablas, Calif.
- KE2XIQ, San Luis Obispo, Calif.
- KE2XIR, La Panza, Calif.
- KE2XIS, Kelly Ridge, Calif.
- KE2XIT, Bangor, Calif.
- KE2XIU, Dorris Ranch, Calif.
- KE2XIV, Iowa Hill, Calif.
- KE2XIW, Sierra College, Calif.
- KE2XIX, Ben Bolt, Calif.
- KE2XIY, Logtown Ridge, Calif.
- KE2XIZ, Growlersburg, Calif.
- KE2XJA, Green Springs, Calif.
- KE2XJB, Esperanza, Calif.
- KE2XJC, Arnold, Calif.
- KE2XJD, Metcalf Gap, Calif.
- KE2XJE, Bear Valley, Calif.
- KE2XJF, Fancher Creek, Calif.
- KE2XJG, Panoche Road, Calif.
- KE2XJH, Shadequarter, Calif.
- KE2XJI, Mountain Home, Calif.
- KE2XJK, Allen, Calif.
- KE2XJL, Chalks, Calif.
- KE2XJO, Corralitos, Calif.
- KE2XJP, Vallecitos, Calif.
- KE2XJQ, Copernicus, Calif.
- KE2XJR, Los Banos, Calif.
- KE2XJS, Hastings, Calif.
- KE2XJT, Within State of Calif.

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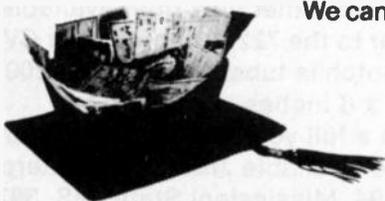
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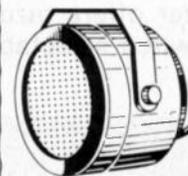
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S9'S MONTHLY PRODUCT REVIEW

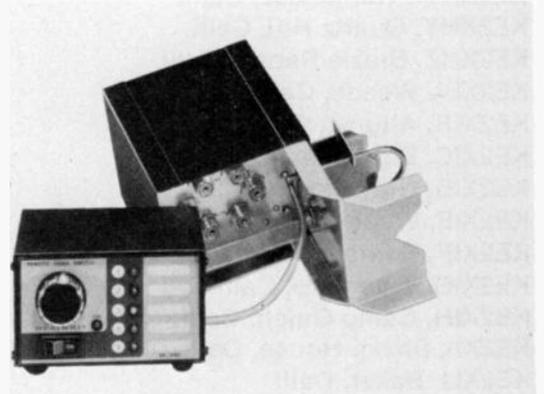
REMOTE COAX SWITCH FOR HAMS

Heath Company has announced a new Remote Coax Switch. The Heathkit SA-1480 allows the CB or Ham operator to select any of 5 antennas by simply turning a knob at his or her bench.

Used with the SA-1480, one feedline from the inside control box to the outside switching box replaces 5 separate antenna cables, saving coaxial cable. A special grounding position grounds all antennas for lightning protection.

A specially shielded switching box protects the switching circuitry from the elements. Silverplated switch contacts help reduce SWR. The SA-1480 operates on frequencies up to 150 MHz and will handle full legal power.

Heath engineers say the new Remote Coax Switch can be easily assembled in 6 to 8 hours. A U-bolt assembly is included to simplify mounting the outside switching box on an antenna mast or tower leg.



Write for a FREE catalog to Heath Company, Dept. 350-220, Benton Harbor, MI 49022, or pick up a copy at the nearest Heathkit Electronic Center (Units of Veritechnology Electronics Corporation), listed in the telephone directory white pages.

Mark number 61 on Reader Service Card.

SSB NOTCH FILTER

The new MFJ-722 "Optomizer" is a CW/SSB filter with a 300-3000 Hz tunable 70 dB notch filter. Switchable bandwidths for CW and SSB give you effortless optimum selectivity during QSO's and contests.

The Optomizer offers razor sharp, no-ring CW filtering with switch selectable bandwidths of 80,

110, 150 and 180 Hz centered on 750 Hz. This 8 pole, 4 stage active IC filter gives CW performance that no tunable filter can match.

For SSB the Optomizer has an 8 pole, 4 stage filter with high pass cut off at 375 Hz and lowpass cut offs switch selectable at 2.5, 2.0 and 1.5 KHz with 36 dB/octave roll off. This is optimized for reduced sideband splatter and less QRM.

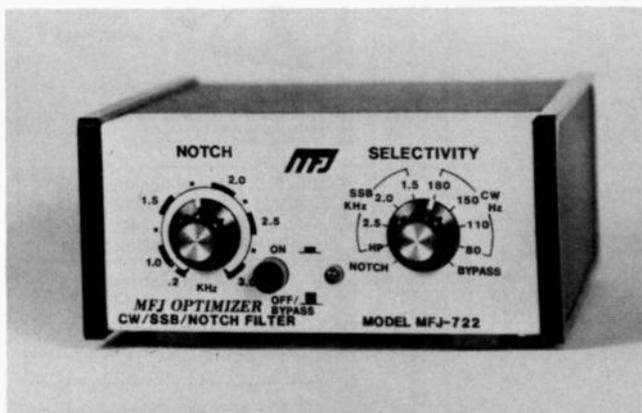
The Optomizer plugs into your rig's phone jack and provides 2 watts output to drive either a speaker or headphones. It requires 9-18 Volts DC with 300 ma maximum current drain or 110 Volts AC with optional adapter.

The cabinet is eggshell white with walnut sides and top and measures 5 x 2 x 6 inches.

The MFJ-723 is another new filter available from MFJ. It is similar to the 722 except it is for CW only and the 60 dB notch is tunable from 300-1200 Hz. It measures 4 x 2 x 6 inches.

MFJ provides a full year unconditional warranty. These units are available from MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS. 39762.

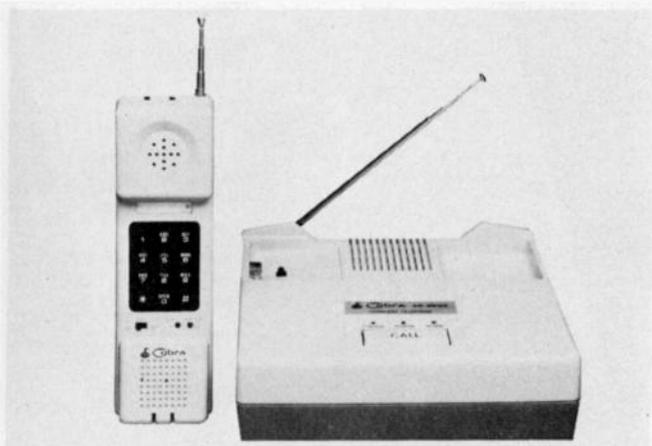
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TWO NEW CORDLESS TELEPHONE SYSTEMS

Dynascan's Cobra Communications Product Group has introduced two new cordless telephone systems that have a wide range of applications in the home, office and commercial establishments.

Essentially, the new phones, under the brand name of "COBRAPHONE," permit receiving and making calls through existing telephone lines, via a remote transceiver handset, with no wires between the handset and the base unit plugged into the local phone lines. This means you can receive/make calls from any room in the house or place of business where there are no conventional phones; outdoors, from patios, pool areas, back yard recreational areas, etc. Effective operating range varies according to local conditions, construction of the building, noise level on the local phone lines, etc. However, Cobra claims Cobraphones have been successfully used at 600 ft. from the base unit, and even in warehouses, clear communications have been achieved at over 300 ft.



Emphasizing the "stay in touch" aspect of cordless phones, Cobra point out that COBRAPHONES make one accessible to important calls from relatives, friends, clients, etc., even though you may not be anywhere near a conventional wired phone. A "CALL" switch on the base permits using the COBRAPHONE system as an intercom. Also, you can watch TV, work in the garage, basement, attic, and still be able to receive/make calls. Quality of communications is excellent.

In an office, or a warehouse, COBRAPHONES permit you to leave your immediate desk area and still be available to handle phone calls. You can either answer the ring on your handset, or wait until you are buzzed on the intercom line.

In all of the foregoing examples of COBRAPHONE application, the time-saving and convenience benefits are evident. In addition, since COBRAPHONES permit you to place calls from wherever you may be, there could be emergencies which require a fast phone call—and COBRAPHONES make this possible. COBRAPHONES offer you the advantage of automatic re-dial if any phone number you dial is busy. This automatic re-dial of last number dialed is appreciated by busy people, and by anyone who has ever dialed an emergency number and found it to be busy.

The two COBRAPHONE models are the CP-100S, which features a 2-way radio type of handset. The CP-200S has a "Trimline" phone type of handset. Otherwise, both COBRAPHONE cordless telephone systems are identical.

Both are available at Cobra dealers, and electronic specialty stores.

Mark number 66 on Reader Service Card.

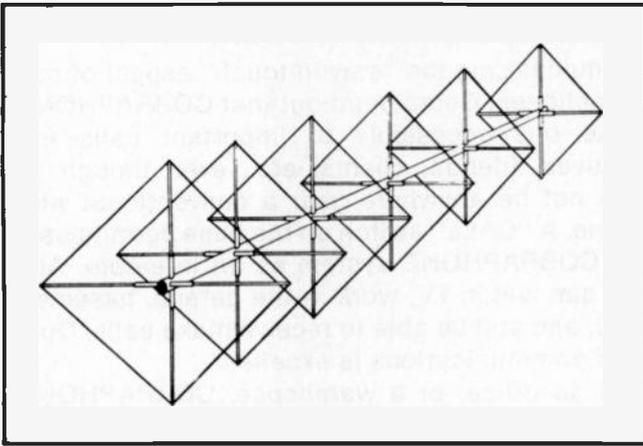
LIGHTNING 6 SIX-ELEMENT QUAD BASE ANTENNA

Signal Engineering's design team has produced a new dual-polarized base beam to complement their existing line of high-technology base antennas. Their new LIGHTNING 6 model is designed to provide truly state-of-the-art performance for the discriminating CB hobbyist; in fact they guarantee this big 6-element true quad will outperform *any* commercially made CB antenna now on the market!

The Lightning 6 is a full size 6-element quad, with 12 radiating half-wave elements in operation on *each* polarization. This results in gain equivalent to a yagi having a 50 ft. boom, along with unparalleled side and rear rejection. In addition, the closed-loop element design eliminates rain and snow static.

The Lightning 6 utilizes Signal Engineering's patented SFS™ feed system, which provides dual polarization with high isolation, extremely low SWR over the equivalent of 80 channels, *and* ease of adjustment at the mast mounting point plug 5 KW power handling.

The Lightning 6 uses the time-proven construction found on SE's Superhawk and White Lightning Quads, which have withstood the effects of hurricanes (a White Lightning 4-element SE quad withstood 92 mph recorded winds during Hurricane David in Savannah, Ga.). The 30 ft. aluminum boom is double wall at high stress areas, and is supplied with an A-frame guying system. The spreaders are solid, specially formulated fiberglass rod material,



which fit snugly into unique spreader supports developed by SE. The boom is pre-drilled, therefore assuring proper element alignment and spacing. The element wires are also pre-cut and color coded, which results in each Lightning 6 working to full spec. All critical operations are done at the factory, making the user assembly very straightforward and quick. The Lightning 6 weighs 37 lbs, has 7.4 sq. ft. wind area, 16 ft. 5 in. turning radius, and is rated for 100 mph wind survival. It is UPS-shippable, f.o.b. Watsonville, Calif. For further information write Signal Engineering, 26 D Hangar Way, Watsonville, Cal. 95076.

Mark number 61 on Reader Service Card.

ELECTRONIC "COOKBOOK"

Just published by Radio Shack is a new handbook of 415 electronic circuits for electronics hobbyists, experimenters, technicians and engineers.

The Archer Engineer's Notebook contains 128 pages of useful and thought-provoking circuitry in a unique hand-executed style that resembles a master circuit designer's notebook. Applications are included for most of the popular integrated circuits sold by Radio Shack.

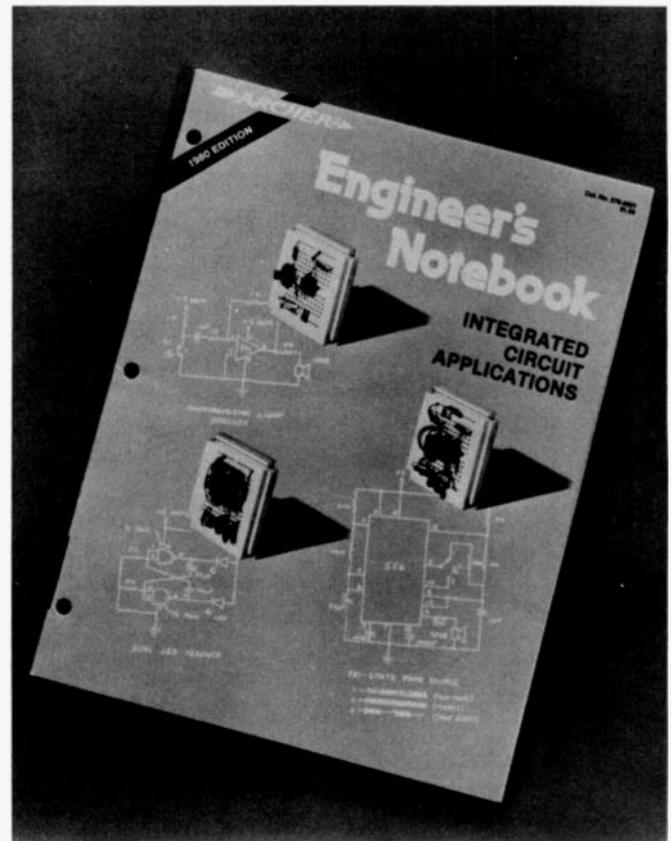
Dozens of handy problem-solving circuits ranging from straightforward building blocks to never-before-published novelties, including a generous selection of warbling, flashing and howling fun circuits, are described. Tips and techniques for beginners are included in the introduction which precedes each section.

Following a brief review of basic electronics, the book is divided into two major sections: digital and linear. The digital section is further subdivided into CMO and TTL/LS chips. Each chip gets at least a full page, and some get four pages of application circuits.

According to Radio Shack, using the book is easy since the chips are organized by function rather than part number. All CMOS gate packages, combinational logic chips and sequential logic chips are placed in their respective groups.

In a like manner, the linear section includes separate subsections for voltage regulators, operational amplifiers, LED flashers and dot/bar drives, timers, tone decoders, voltage-to-frequency converters, voltage controlled oscillators and audio amplifiers.

The book was compiled and hand-executed on engineering grid paper by Forrest M. Mims, III, an electronic writer who has written hundreds of articles and 36 books covering topics ranging from



electronics and lasers to computers and CB radio.

Many of the circuits in the Engineer's Notebook came from Mims's personal notebooks and his project articles. Others are from manufacture's data books or were designed by Mims specifically for this book.

The Archer Engineer's Notebook is available exclusively from participating Radio Shack stores and dealers, nationwide.

Mark Number 53 on Reader Service Card.

FREQUENCY COUNTER

Continental Specialties Corporation has announced a new 650 MHz benchtop frequency counter, Model 6001.

The CSC Model 6001 Benchtop 650 MHz frequency counter permits extremely accurate measurement of frequency from 5 Hertz through 650 MHz plus exceptional flexibility in a general purpose laboratory and test bench frequency counter.

Two inputs are provided through front-panel BNC connectors. The A input is used for signals from 5 Hertz to 100 MHz, offering a conservative 1 MegOhm + 10 pF input impedance; a switchable low-pass filter in this range provides a 3 dB per octave rolloff at 50 KHz in order to facilitate audio and ultrasonic measurements. The B Input is used for signals from 50 MHz to over 650 MHz, offering 50 Ohm input impedance and fuse protection. Both inputs offer true TTL compatibility.

Three switch-selectable gate times are offered: 0.1, 1.0 and 10 seconds, which provide resolutions of 10, 1 and $\frac{1}{10}$ th Hertz, respectively. A gate LED on the front panel indicates a gate-open condition. The timebase for the 6001 is a precision 10 MHz crystal oven oscillator, or an external reference may be selected with a rear panel switch. The oven oscillator output is buffered and made available at a rear panel BNC connector; a second rear panel BNC provides the input connection for an external timebase reference. The 10 MHz crystal oven timebase boasts $\frac{1}{2}$ ppm accuracy from 0-50°C.

Use of an external timebase at a frequency other than 10 MHz permits the 6001 to operate in a scaling (also called rescaling) mode, in which the output is presented in units other than Hertz (cycles per second); this permits the 6001 to be used as a directly-indicating digital display in a number of applications, including transducer translation, flow monitoring, tachometry and more. These applications are more fully explained in the instruction, operation and application manual included with the 6001.

The 8-digit LED display on the 6001 features lead-



zeroing blanking, bright 0.43-inch characters, a decimal point in the MegaHertz position, and a contrast enhancement filter to ensure legibility in high ambient light environments. Discrete front panel LED's provide OVEN READY, OVERFLOW and GATE (gate open) indications. In addition, the leftmost digit of the eight-digit display flashes to signal counter overflow. The MegaHertz-position decimal point serves as power pilot.

The front panel controls have been kept to a purposeful minimum to provide maximum utility with no chance for confusion. In addition to the power switch and gate time selectors, the A/B Input Selector and Low Pass Filter In/Out Switch are the only other front panel controls.

The 6001 is recommended for applications from audio through UHF in communications, data processing, process control, RF design, digital design, maintenance and test benches, multiplex communications and more.

For additional information or the name of the stocking CSC distributor most convenient to you, contact CSC at 70 Fulton Terrace, New Haven, Connecticut 06509. WEST COAST OFFICE: 351 California Street, San Francisco, California 94104.

Mark number 64 on Reader Service Card.

TRIWAY POWER ANTENNAS

Augmenting its popular AM/FM/CB Triway Antenna Line, Harada Industry of America, Inc., has introduced two new Triway models, designated the TX-20 and TX-10.

The new models are the most powerful Triways Harada has yet manufactured, incorporating a super-powerful new 10-pole motor for exceptional

drive power. As a result, the units operate smoothly and easily, even in coldest weather where icing could otherwise be a problem. In addition, both models are equipped with a noiseless clutch for virtually silent operation. Body and cables are completely shielded against electrical interference, either from the car's ignition or from outside



sources, further assuring noise-free reception of radio signals.

Other features that point up the new models' rugged construction are the heavy-duty hardware that assures complete watertight weatherproofing and the resilient chrome-plated stainless steel antenna masts themselves, designed to withstand even the harshest wind and weather conditions.

One further design feature gives the TX-20 and TX-10 an edge over some of its competition: in case of damage, the mast can easily be replaced without dismantling the entire antenna assembly, thanks to a double-contraction mounting nut and a self-locking plastic cable, making repairs a simple matter.

The TX-20 is a fully automatic model that can be activated by either the car ignition, or the radio ON switch. The TX-10 is a semi-automatic version, activated by a special switch which can position the antenna mast at any height desired for best reception. Both units are fully retractable as a protection against vandalism.

The new Triways are easily installed in virtually all foreign and domestic cars, with mounting heads available for GM, Ford, Chrysler and universal designs. For complete information, write Harada Industry, Dept. P, 145 East Albertoni Street, Carson, CA 90746.

Mark number 60 on Reader Service Card.

NEW LINE OF TELESCOPING REPLACEMENT ANTENNAS

A new line of heavy duty telescoping replacement antennas are full length $\frac{1}{4}$ wave radiators providing increased efficiency for radios that are not normally available with a telescoping-type antenna.

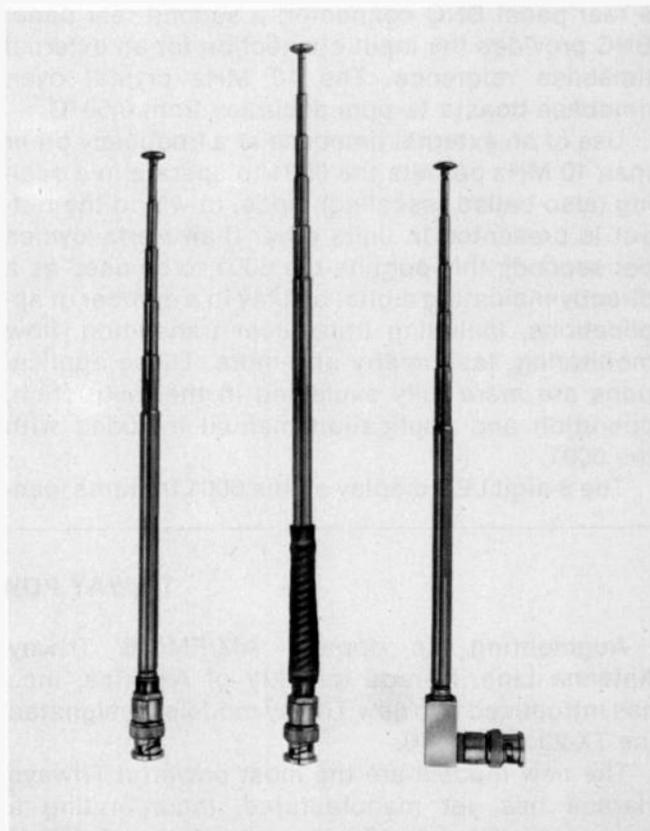
Three models are offered, each fitted with one of the five connector configurations: a straight telescoping antenna, a flex-spring model and right angle mounting model. The right angle model is suitable for radios with front or rear mounted connectors or test equipment applications.

The flex-spring model has a shock absorbing spring fitted to its base to provide the popular flexible feature. The spring is protected with a tight fitting neoprene sleeve. The sleeve retains its flexibility from -55° C. to $+100^{\circ}$ C.

All models are available with a choice of five different connectors. They are: BNC, TNC, PL-259, F and $\frac{5}{16} \times \frac{1}{32}$ threaded stud.

For more info contact: Centurion International, P.O. Box 82846, Lincoln, NE 68501.

Mark Number 52 on Reader Service Card.



AVANTI BEAMS IN ON NEW ANTENNA SPECIAL

Factory rebates on four popular beam antennas and the Avanti Moonrotor are being offered until January 15, 1981 by Avanti Research and Development, Inc., Addison, Illinois.

This will include a \$40 rebate, plus a giant price rollback on the ultimate beam, Moonraker 6. In addition to having 50 times more power, Moonraker 6 also features 6 dual elements with a PDL reflector and a 31.5-ft. boom.

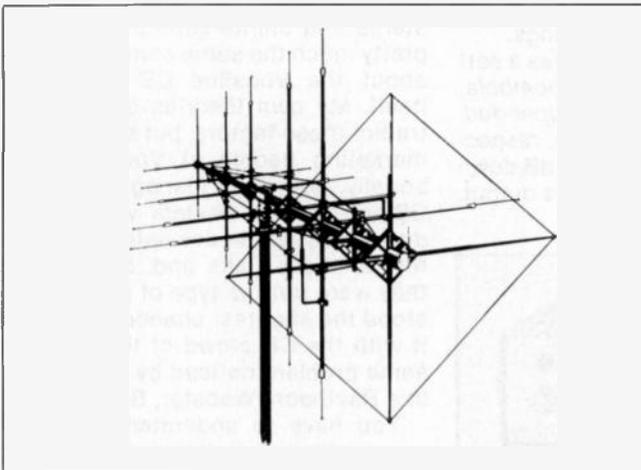
CB'ers can also save \$10 on the Avanti Astrobeam antenna (the antenna that has at least 1 dB more gain than the best competitors' 3 element beam on the market today) and Moonrotor—the electronic solid state unit that's designed to set new standards of accuracy and reliability in antenna rotation.

A free 4 position switchbox worth \$24.95 is also included with the purchase of the PDL II or Moonraker 4 antennas. The PDL II is a dual polarity beam with orbital gamma match for increased gain and rejection. Moonraker 4—famous for rejection of unwanted noise and interference—unleashes co-inductive power like no other antenna.

To qualify for the rebate, all you have to do is buy the Avanti beam of your choice or rotor at a sporting goods or CB specialty store. Then send in the appropriate coupon and warranty card, along with proof of purchase to Avanti antennas. Within 3 weeks, you will receive your rebate and/or free switchbox. Coupons are available in national ads and can be obtained from your local CB specialty store.

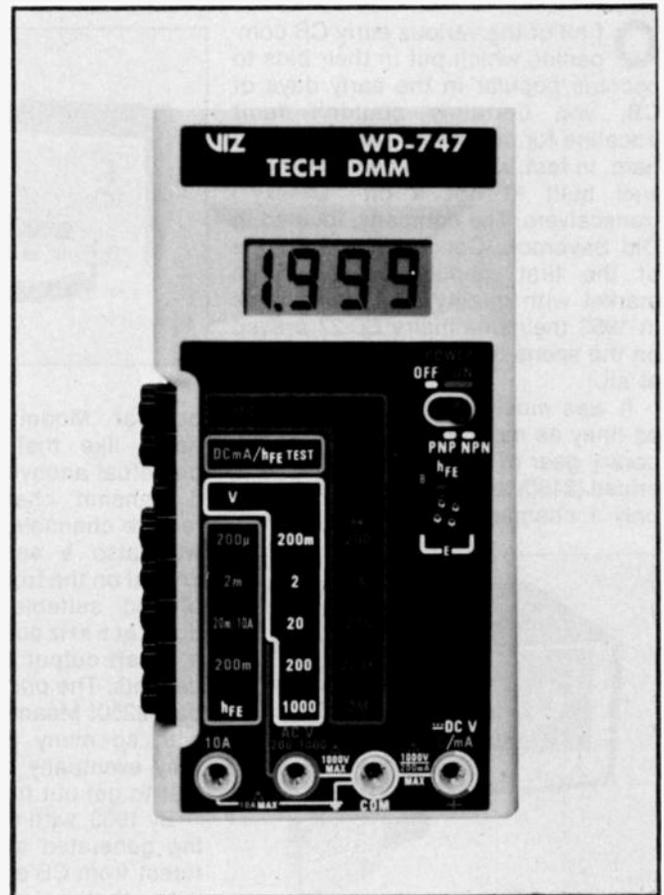
For more information, contact Avanti Research and Development, Inc., 340 Stewart Avenue, Addison, IL 60101.

Mark number 53 on Reader Service Card.



NEW HANDHELD 3½ DIGIT MULTIMETER

A handheld 3½ DMM has been introduced by VIZ Mfg. Co. Called the "Tech DMM" Model WD-747, the unit comes in a compact, bright orange, high impact plastic case. It may be used to measure DC



and AC voltage, DC current (up to 10 amp.), resistance and transistor h_{FE} .

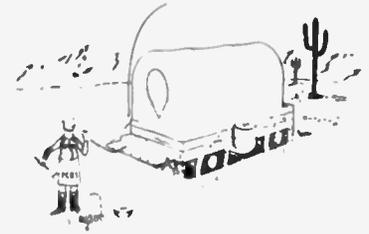
The unit is said to combine the advantages of versatility, compactness, ease of use and durability. The WD-747 has a built-in socket and circuitry for testing transistor h_{FE} —the only 3½ DMM which does. Also, it features a ½" LCD readout, side buttons for easy one-hand operation, resolution down to 100 microvolts, accuracy better than 0.8%, DC input impedance of 10 megohms, auto-polarity, auto-decimal and full overload protection.

All functions are color-coded to reduce risk of operator error. The unit comes complete with 9V battery, deluxe test probes and spare fuse.

For additional details, contact VIZ Mfg. Co., 335 E. Price St., Philadelphia, PA 19144.

Mark number 54 on Reader Service Card.

THE CB PIONEERS' CORNER



By Judy, SSB-99/PCBS-99

Of all of the various early CB companies which put in their bids to become popular in the early days of CB, you certainly couldn't fault Vocaline for not trying. They tried very hard, in fact, and produced a string of well built (if not a bit "unsexy") transceivers. The company, located in Old Saybrook, Connecticut, was one of the first manufacturers on the market with quality equipment; back in 1959 their Commaire ED-27 arrived on the scene to practically no ovation at all.

It was nicely designed, didn't look as tinny as most of the other contemporary gear of the day, was popularly priced (\$180) and yet—well it did have only 1 channel, and despite its high



performance dual conversion receiver, it really was sort of *blah*. It sort of just "laid there" and created no interest at all, and even when Vocaline offered a 4-channel version (ED-27M at \$190) it went absolutely nowhere. Also in *Nowheresville* was the innovative portable model PT-27 they came out with in 1961.

The PT-27 was a 4-channel unit with a tunable receiver that could bring in the AM broadcast band in addition to CB. It looked like a small suitcase right down to its carrying handle. But it needed a heavy battery to run, and when you were through lugging the heavy beast to where you were going you only got 1-watt input from the \$250 set. Nice try, but it was of no interest to the CB crowd of the day.

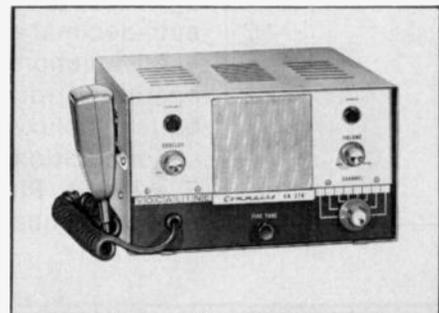
The following year they added another quality designed and built nowhere rig to their growing line of bland gear. This time it was the ever



popular Model ED-276—a catchy name like that practically insured perpetual anonymity! The ED-276 had 6 transmit channels, 5 rockbound receive channels, plus tunable. There was also a socket for a transmit crystal on the front panel. The receiver offered suitable selectivity (50 dB down at 5 kHz points), .1 uV sensitivity, a 3 watt output and all sorts of other delights. The price was a hefty (for its day) \$250! Meanwhile they were stuck with so many PT-27 portables that they eventually cut the price by \$50 just to get out from under them.

By 1963, with none of their sets having generated even the slightest interest from CB'ers, they forged ahead with their cleverly named Model ED-278; perhaps they felt that CB'ers would start talking about what ever became of the ED-277 which was never even announced, and that would pick up interest in their offerings.

Ah, the ED-278, now there was a set! If the ED-276 was a certified *bombola*, "Commaire" ED-278 was a *super-dud*. This \$200 set had 8 channels, respectable selectivity (10 kHz at 50 dB down points). It guaranteed 3.2 watts output,



had fine-tuning, and even an early solid-state power supply. If they ever sold any ED-278 rigs it was a well kept secret; I've never seen one—new, used, or in use— during all of the time I've been into CB radio.

Here was a classic instance of a well structured company, with big bucks behind it, offering a generally fine line of products which simply could not make any inroads at all into the CB marketplace. After the ED-278 debacle nothing much was ever heard from, of, or about Vocaline in the CB field—and yet here was a company which had been trying to be a CB leader for years. Fact is that when the old Class B CB (465 MHz) was started up in the 1950's, Vocaline was one of the few companies producing equipment for that service.

Vocaline's name was a pioneer in personal communications, and with high quality equipment for 27 MHz (although somewhat high in the price department) they somehow managed to miss the brass ring. They were passed by in the marketplace by dozens of companies making equipment which was nowhere nearly as well designed or constructed. Why?

There are several theories. One of them says that they didn't adequately advertise their products; the few ads which they did run were not placed in publications where CB'ers would see them. Moreover, the ads were sort of sterile and uninteresting; which was pretty much the same complaint I had about the Vocaline CB equipment itself. My own theories do not contradict these factors, but add that the marketing people at Vocaline, personally, somehow managed to leave CB'ers and CB dealers with a chill down their respective spines. I met a few of these folks and, believe me, they were not the type of people who stood the slightest chance of making it with the CB crowd of the day, the same problem noticed by companies like Raytheon, Webster, Bendix, etc.

You have to understand that CB was really new in the early 60's, and those who were into it (both users and dealers) were somewhat of a grizzly bunch of very folksy and down-to-earth people. Distributors would

sell CB gear to dealers from car trunks, deals would be made with no more than a handshake to bind them as being sacred and without the ability to be cancelled. Early CB'ers themselves were very "in" with one another (probably because there weren't all that many of us, comparatively speaking). In order to sell something to our crowd you had to speak the language and at least be able to let us think that you knew what CB was all about.

For instance, the honcho at Browning Labs, Gar Greene, Jr., was the kind of a guy who knew countless CB'ers by their first names (on sight) and he was, himself, an active CB'er—one of the guys. Same thing with George Beyers at International Crystal Mfg. Co., likewise Pete Robbins at e.c.i. Courier, and others who were making inroads into CB in the early days.

On the other hand, Vocaline's rather prim sales staff at that time was totally out of contact with this gut-level approach to CB radio; I mean, these guys wore pin-striped shirts, double-breasted suits, neckties, and they all carried attache cases! Their shoes were even shined! These guys were losers right from the word go. If you asked one of them for literature on their CB gear, they extracted from their attache cases a pristine and finely printed brochure printed on glossy paper, showing a full color rendition of the equipment. Most other manufacturers of the day would have to dig through an untidy plastic brief case before they eventually handed you a rumpled and coffee-stained mimeographed sheet which they usually asked you to return when you were through looking it over.

Contrast the Vocaline sales person with my first very impressive meeting with Ron Levine, President of Polytronics Labs, an early producer of popular deluxe CB gear. Ron first appeared to me as two dungareed legs sticking out from under a car parked in back of the Polytronics offices in Clifton, N.J. Seems a dealer showed up to ask about selling Ron's gear and when he was starting up his car to go back to his store, Ron told him that he didn't like the way his muffler sounded. Ron then got under the car and tried to fix the thing. Now that was the way to sell CB gear in the 1960's! It was a lesson Vocaline just never could figure out.

In a nutshell, that is one of the reasons that some of the highest quality CB gear made was regarded as being totally alien to the CB'ers of the 60's.

Why Me?

Almost all black Americans have, at one time or another in their lives, come face-to-face with this fact: that they are more prone to high blood pressure than white Americans. While this is being singled out in a way unlike the many obstacles experienced in the long struggle for equality, it is one that black Americans can do something about quickly and easily.

We don't know what causes high blood pressure, and we don't know why black Americans are twice as likely to have it as white Americans.

On the average, a black American will die

sooner than a white American who develops high blood pressure at the same age. The cause of death will probably be stroke, heart attack, or one or more of the complications of high blood pressure such as hypertensive heart disease or kidney failure.



You can't tell on your own if you have high blood pressure because, in most cases, there are no symptoms. An inexpensive, painless medical examination can determine if you have high blood pressure. A regular therapeutic program can usually prevent the otherwise often fatal consequences of this dangerous disease.

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U.S. Department of Labor



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S9 • January 1981 • 49

The Radar Column

by "Jammer"

JERRY REED GOES ON DOWN THE ROAD WITH WHISTLER

Jerry Reed, star of "Smokey and the Bandit II," is the new spokesperson for the Whistler speed radar detector product line.

Reed will appear on a group of late night "Trucker Format" radio programs and in national magazines. Store displays feature Reed displaying the Whistler model RE 55 XK. A specially priced sound track from Reed's movie is available at local truckstops as part of the Whistler program.



POLICE GO VIDEO

Just when motorists are starting to get used to the watchful eye of police radar, technology has created a new enforcement tool.

"Vidiscan" is a development of September and Associates of Tukwila, Washington, a firm specializing in communications and police training.

September and Associates is marketing an auto-

mobile-mounted video taping system, which police can use to visually record traffic violations. While radar picks out speeders alone, Vidiscan's camera records cars that make improper maneuvers or have mechanical deficiencies.

September's first customer for Vidiscan, the Washington State Patrol, is said to be making final purchase arrangements. The company also has letters of intent to purchase the units from seven other police agencies, the largest being the Atlanta, Georgia squad.

The camera can zoom in on objects, magnifying them by a factor of 10. The camera is also sensitive to infra red light, giving it the ability to "see" in the dark. The camera is available in both black and white, and color.

SEMI-MARKED TROOPER CARS IN ACTION

The Alabama State Highway Patrol is operating 17 semi-marked police cars all over the state.

Bought in May, the cars have been through a full vacation season and complaints are running less than 10 percent, according to Trooper J. E. Pouncey, who works the four-lane highways in Montgomery County in his semi-marked aqua blue St. Regis Dodge.

The police cars, which are identified only by the State Trooper insignia on the right front door, are all equipped with standard law enforcement modifications.

Along with speeders, Pouncey says he now stops a variety of offenders, including litterbugs and those who run traffic signals. His semi-marked car does not have radar—he clocks speeders with his own speedometer by traveling behind them.

The Alabama Department of Public Safety used totally unmarked cars several years ago but abandoned the project in May 1976 at the request of then Governor George Wallace when a woman reported she had been raped by a man posing as a trooper.

COILS TO MONITOR SPEED LIMITS

Coils buried in the road surface will soon be monitoring vehicle speeds on Wisconsin Highways in 60 key locations around the state.

James Peterson, Highway Safety Coordinator, said a \$39,000 grant of federal highway funds has been made to purchase and install the equipment.

The coils, in addition to monitoring speeds, will also count the number of vehicles traveling over them.

The date obtained will be used primarily for quarterly reports required by federal officials. The state of Wisconsin stands to lose 3.5 million dollars in federal grants this year if less than 60 percent of the motorists in the state are found to be exceeding the 55 mph speed limit. That figure rises to 7 million dollars in just three years if just 30 percent continue to speed.

NEW STANDARD FOR RADAR

The National Highway Traffic Safety Administration (NHTSA) and the National Bureau of Standards are working to develop performance standards for speed measuring devices that are used for traffic law enforcement.

A draft performance standard, stemming from efforts which began three years ago, is expected to be published in the Federal Register within the next 60-90 days. Testing of products for a Qualified Products List (QPL) should begin soon.

All radar speed measuring devices in use—or available on the market—will be tested against the standard. Only those devices whose names appear on the QPL will be eligible for Federal funding assistance. Future buying of a device will depend on certification by the manufacturer/supplier that the equipment meets the standard requirements.

Federal funding for the purchase of new radars was cut off July 1, 1980. No new federal money will be available for radar purchases until the National Bureau of Standards releases their performance standards for radar.

RADAR ARREST PROTESTED

A protest over a traffic arrest July 6th by Lt. John Bates of the Jefferson Village, Ohio Police Department has temporarily halted the use of the department's traffic radar unit until it is registered with the Federal Communications Commission.

After being cited for speeding (50 mph in a 35 mph zone), Red Seivers of Roaming Shores questions the legality of the use of radar to maintain traffic speed. After some research he discovered that the radar unit used to cite him was not licensed by the FCC.

Police Chief Ken Johnson said the department has applied for the license for the one unit it has, and the radar won't be in use until he receives the license. That should take about 10 weeks.

According to Johnson, the radar manufacturer, MPH Industries, Inc. of Chanute, Kansas should have provided the necessary forms for licensing

when the unit was purchased. The company representatives never made mention of the FCC and the license requirement!

Nonetheless, Mr. Seivers will still be tried on the speeding charge.

VASCAR MAKING A COMEBACK

The Indiana State Police recently received new VASCAR Plus units that can read five digits and can be used for more than timing speeds.

Unlike conventional radar which clocks a vehicle's actual speed at a particular time, VASCAR records the average speed of a vehicle as it moves between two points. When timing a vehicle with VASCAR Plus, the trooper is shown the vehicle's speed, the distance it traveled, and the time it took to travel it.

Because the screen on VASCAR Plus can show five digits, it can measure to within one one-hundredth of a mile, so it can be used to measure skid marks and specific distances at accident scenes. It can also measure time in one-hundredth of a second intervals.

Indiana State Trooper Joe Copeland speaks for many fellow officers when he says, "I can't clock everyone with VASCAR, but I feel more confident I'm getting accurate time readings."

SOME IDAHO TROOPERS STUDY RADAR

Local Idaho State Patrolmen from District 1 have been attending training sessions on the effective use of radar equipment for the past several weeks.

Based on a program developed by the Utah State Patrol, Sgt. Gary Emerson has trained 23 officers about the use of radar. Emerson and other Idaho State Policemen spent a week with the Utah program and returned to train Idaho radar operators.

Officers received 24 hours of classroom and 40 hours of field instruction in proper operation of moving and stationary radars. Some of the areas discussed were: radar case law, visual speed and range determination, errors, and related topics.

RADAR CLINIC HELD

A radar seminar was held at the Virginia Military Institute for some Fairfax Police Officers. The 40 hours of classroom training and road demonstrations were instructed by radar expert Colonel Lee Nichols.

Guest speaker was Dale T. Smith, another well known radar expert and inventor of the Fuzzbuster®. His main topic was the evidentiary status of radar in the courts today. Retired attorney Henry Foresman was also present and presided over several moot court sessions.

The police officers attending this clinic are expected to train other Fairfax Police Officers in radar.

RADAR DEVICES TO BE MODIFIED

The county commission of Brooksville, Florida has authorized the expenditure of \$450. by the Florida Highway Patrol for modification of four radar devices to conform with specifications recently handed down by the state legislature.

Florida Highway Patrolman Rick Peters asked for the money to pay for removal of speed locking devices and warning tone devices from the units.

The modifications should have been made by September 1, 1980 or evidence of speeding that was obtained by use of the units will be inadmissible in court.

TIPS FROM A TAX MAN

A traveling salesman recently wrote to Charlotte, North Carolina Observer Tax Line advisor Myron Lubell asking if he could deduct the cost of CB radio, claiming it is "ordinary, necessary, and reasonable."

Mr. Lubell responded by saying, "I see nothing wrong with claiming a deduction for a CB that is used for legal business purposes."

For more details, please check with your local IRS office!

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.

TAB POPULAR CB BOOKS

- **CB Radio Operators Guide—
Second Edition**

Tells what CB is, how it is used, how to buy and install equipment—PLUS Part 95, the FCC rules regulating CB. 256 pages.

Order No. 799

Paper \$5.95 Hardbound \$8.95

- **Pictorial Guide to CB Radio
Installation & Repair**

Step-by-step guide to car and base systems installation and basic maintenance. 256 pages.

Order No. 683

Paper \$5.95 Hardbound \$8.95

- **Citizens Band Radio Service
Manual**

All-in-one troubleshooting and maintenance guide for all types of CB sets, including a 36-page schematic foldout section. Step-by-step repair procedures and trouble-analysis charts. 192 pages.

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2 MHZ

We have always considered the band between 2000 and 3000 kHz one of the most interesting DX challenges to be found anywhere. Conditions are very similar to those found on the standard AM BCB but with considerably less interference. It must be a lot like the AM band was in the early days of radio.

Last month we dealt with the AERO channels between 2850 and 3000 kHz. Below 2850 is mostly marine territory with ships between 2000 and 2450, and coast stations between 2450 kHz and 2600 kHz—but both ships and coast stations are on 2182 kHz, the international calling and distress frequency. Many coast stations in the 2450-2600 range relay the transmissions of those vessels with which they are in contact. Meanwhile, an especially challenging DX channel is 2752 kHz, where various antique freighters in the Caribbean operate along with an occasional coast station: presumably Stakes Bay Radio (Caymen Islands)

and Belize Radio are still equipped to transmit here on occasion.

DX'ers can also watch for European coast stations around this part of the band—specifically Norddeisch Radio (West Germany) on 2614, Ostend Radio (Belgium) on 2761 (just one kHz above the Cuban CG channel), and Schenveningen Radio (Netherlands) on 2830 kHz. These stations transmit in various languages, including English.

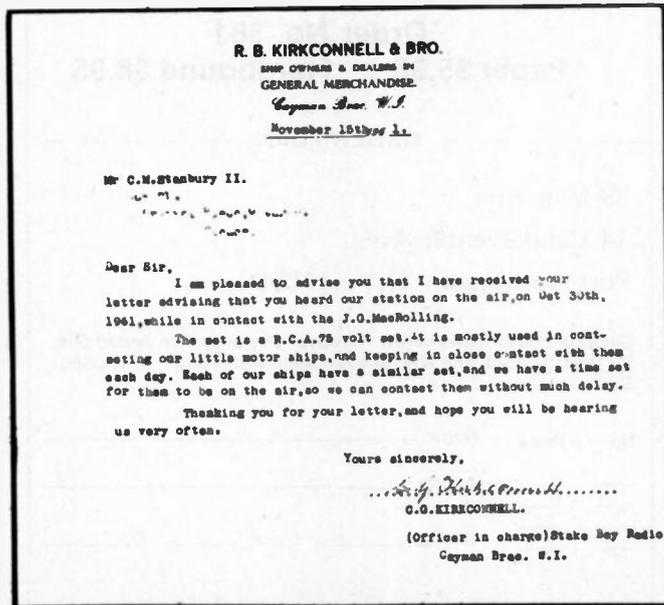
Scattered throughout all these frequencies are a few broadcast stations. They provide particularly outstanding DX on the west coast around sunrise. There are mainland Chinese outlets on 2200, 2310, 2490, 2600 and 2800 kHz, Radio Korea (Seoul) on 2510, Pyongyang on 2850 as well as some lower powered North Koreans between 2700 and 2800 kHz. In the mid 1970's some of these were logged in eastern North America around sunset, but because of the present high sunspot count it will probably be a few years before that happens again. On the other hand, we can all start looking for low powered Brazilian stations in the 2300-2500 kHz range during March. These are in Portuguese, of course.

FROM THE MAILBAG

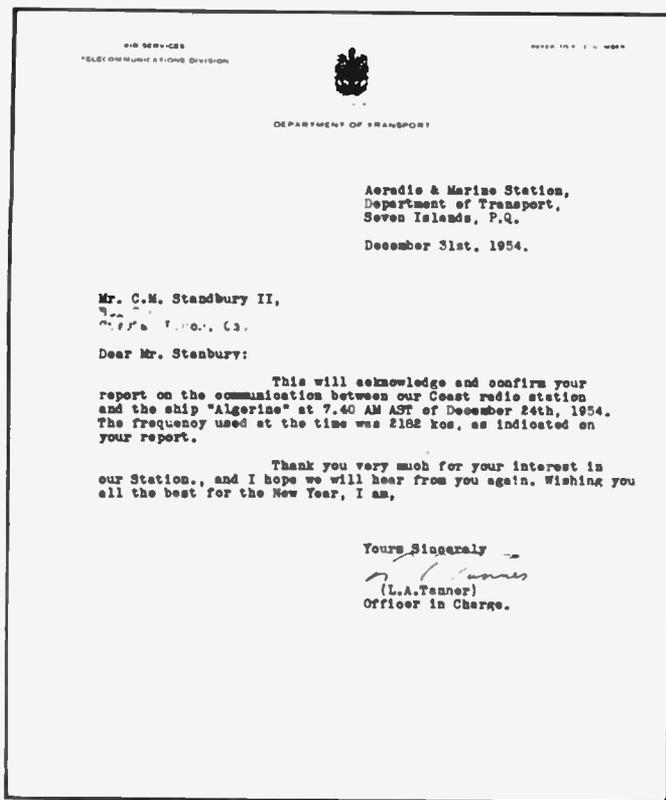
For DX'ers interested in "Nibi Nibi" type locations, reader Art Conforti in Alaska notes that Mollot, Clamshell, Swordfish, and Abalore are all AERO reporting points in international waters around Japan. USAF flights over these locations use upper sideband on 6712, 8989, 11179 and 13201.

Meanwhile, he offers a unique explanation for those tactical callsigns on WWV's frequencies; "If the aircraft or other tactical stations are near enough to communicate over WWV's signal then that signal will help disguise their presence and what enemy expects to find your forces using WWV's channel anyway? It's an outstanding tactical maneuver even if it's illegal, impolite and frustrating to others."

Conforti also reminds us that USAF transport flights no longer ID as "MATS" and haven't for about 15 years. We must be getting old! The ID is "MAC" (Military Airlift Command). Incidentally, Conforti's report is the type of intelligent mail always welcome here at DXK.



QSL letter from Stakes Bay Radio.



QSL letter from Seven Islands (Sept Isles) Radio, on the north shore of the Gulf of St. Lawrence, one of many rare locations which can be logged on 2182 kHz.

THAT OLD TIME RELIGION

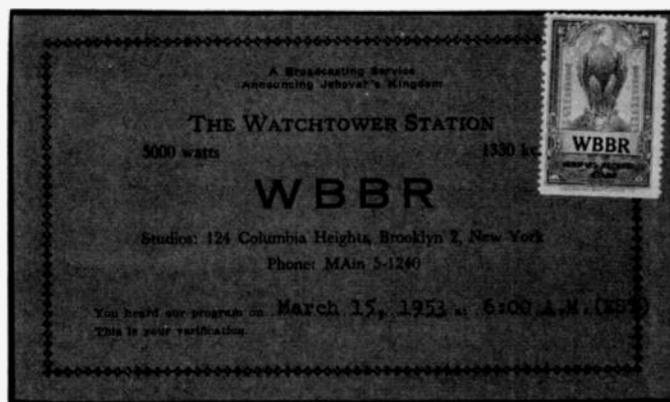
Religious broadcasts have escalated at an amazing rate over the past decade. While more than holding its own on AM and TV, there has been a veritable gospel explosion on the FM and short-wave bands. But one religious organization which has moved in exactly the opposite direction is the Jehovah's Witnesses sect. With no regularly scheduled programs today, few realize that in the 1920's Jehovah's Witnesses operated one of the largest religious networks in the world—in terms of broadcast hours per week, quite possibly the largest at that time.

The church owned six stations in the U.S. and Canada outright, plus exclusive rights to all religious programming on two others including one commercial broadcaster still on the air—WHK Cleveland (now on 1420 kHz). The two wholly owned U.S. stations were WBBR New York City, which operated until the late 1950's, and WORD at Batavia, Illinois (near Chicago). WBBR shared its frequency (1300, later 1330 kHz) with WEVD, WFAB (both NYC) and WHAZ Troy. WFAB was bought out in 1933 by WEVD, owned by the Debs Memorial Radio Fund, Inc.; "EVD" stood for Eugene V. Debs—four time presidential candidate of the Socialist Party.

The WBBR studios were also used to produce a recorded program, the type of religious package carried by many ordinary commercial stations then

and now. By 1933 the number of stations carrying WBBR's transcriptions topped 400, but because of the programs' controversial views, particularly attacks on the Roman Catholic church (such claims as Hitler coming to power through Catholic intrigue), every commercial contract had been terminated by the end of 1937 (with the church describing those stations which had refused to carry the program as "members of the Devil's organization"). In 1957, when Jehovah's Witnesses decided to abandon radio entirely in favor of the door to door approach, WBBR was sold. According to an official church publication, it "was no longer needed."

At this point we encounter an ironic twist of history. Just three years after WBBR withdrew from the airwaves, anti-Catholic broadcasts and publications reached unprecedented proportions as the far right tried desperately to keep John Kennedy from becoming President of the United States. Although no longer broadcasting, the nominally "non-political" Jehovah's Witnesses devoted an entire issue of their publication AWAKE (Oct. 8, 1960—only a month before the election itself) to an attack on the Catholic Church. This was the first time that the Jehovah's Witnesses organization, as such, ever took part in a presidential campaign. And earlier that year WEVD, the station that had so long shared WBBR's frequency, carried "The World



QSL card and "DX stamp" from WBBR.

Crusade for Christ" at 2330-2400 EDT every Sunday.

Typical of the Crusade was this statement (Oct. 1, 1960): "Red Russian Communism is the anti-God kingdom: Roman-Catholicism is the anti-Christ body." However, WEVD soon dropped the program as did most of the other 100 plus U.S. stations which had been carrying it. In a letter postmarked Sept. 5, 1960, a Crusade spokesman proclaimed, "As soon as my voice was heard nation-wide by radio, a conspiracy of religious, political and financial pressure was hurled against the truth." However, in a subsequent letter the spokesman admitted "We know we could not continue indefinitely." Quite possibly WBBR had earlier come to the same conclusion.

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.

FILTER TRAPS

When I was made aware that my rig was causing TV interference, a simple low-pass filter hooked to my transmitter cured the problem in short order. A high-pass filter on my own nearby TV set even eliminated severe TVI I was causing there. The filters are such clever devices it seems hard to believe that the primary function they serve is to clean up TVI, yet I don't know of any other applications they have. Do they have any other uses?

Sally Regale,
Blackwood, Mo.

These days, radio interference filters help keep planes from crashing, enable doctors to get accurate readings from sensitive monitoring devices and even in the world of espionage they frustrate efforts to break military and diplomatic codes. A radio interference filter is an electronic device which allows electronic signals of a wanted nature to enter or leave equipment and keep out all other unwanted signals. It's like a policeman or guard at the door. They range in size from a quarter of an inch in diameter and about a half-inch long to about 9 feet by 5 feet and 4 feet high, which is the size of a typical power utility power-line filter (it weighs 2,000 pounds). Some filter manufacturers now produce more than 20,000 designs!

As the use of electronic equipment



becomes more prevalent, the use of such filters in gadgets like computers, radar, weapons, expands greatly. Otherwise internal circuits and components can leak into one another and cause problems—it's a form of pollution. Cryptographic (message coding) equipment is designed so that foreign governments can't decode the messages which are being sent. One type of filter used by our government is called the "cryptographic filter." Seems that even the cryptographic equipment generates, along with the coded messages, various electrical noises and, unless filtered out, an unauthorized listener could use that noise to analyze certain patterns in a way which could make the message meaningful. The filter suppresses that noise before it is sent out.

Mechanical and crystal filters have long been used in communications equipment to increase the selectivity of receivers; while bandpass and audio filters are abundant in radio and audio equipment.

GOT A MINUTE FOR A GUY IN A SPOT?

My name is Coulson S. Fay, "Thunderbolt" on the CB channels. I'm from West Palm Beach, Fla. Right now I'm in prison and can't have a CB but I miss CB a lot and would very much like to receive some QSL cards and letters from CB operators.

Coulson S. Fay,
F-5448 Unit F,
Drawer K,
Dallas, Pa. 18612

CLIFF HANGER

My head is still spinning! I had my aero band scanner on today (June 16th) and on a Unicom frequency (122.8 MHz) I heard a pilot identifying himself as "Cliff Robertson" while talking to a ground station. This was during the early afternoon, I recognized the voice at once and it was "the" Cliff Robertson, star of two of my favorite films, "PT-109" and "3 Days of The Condor." I think he gave his aircraft's callsign as N-527R. Is there any way I could get a QSL from Cliff Robertson?

Joe W. Hobart,
Branford, Conn.

Robertson is an avid pilot and I would imagine that his voice should be reasonably familiar to aero band scanner monitors by now. I logged him first a couple of years ago when he was participating in an air/sea search mission. The correct callsign is N-524R and Robertson's rig is a Bayside Electronics #BEI-990-5. I would suggest that if you want to try to get a QSL letter from him for your reception you might try writing to him in care of his business address since some well known folks get touchy when blitzed at their residences by the public. Although Cliff lives in Newbury Park, Calif., try writing to him in care of International Creative Management, 40 West 57th Street, New York, N.Y. 10019. Mark your reception report "please forward," then cross your fingers!

MODULATING WITH INCREASED FREQUENCY

About a year ago I heard a weak FM broadcast station way off yonder in the distance and just barely able to be copied. Eventually I copied enough of their programming to send off a reception report. My reward was a fantastic QSL card from a station almost 200 miles away. Since then I've devoted some time to this hobby with considerable success. I have more than 50 QSL cards and letters and if you could let me know if there is a listing or roster of FM stations, showing their frequencies, locations and callsigns, it would be of considerable aid to the FM DX hobbyist and I'm sure that I'm not the only one around.

Samuel Pyczinski,
Cedar Key, Fla.

No, you're not alone, it's a thriving hobby and has many followers. The book you're looking for is The FM Atlas And Station Directory, by Bruce Elving, listing about 5000 FM broad-

cast (plus 300 FM "translator") stations in the U.S. and Canada. In addition to the basic information you wanted, the publication also gives lots of data on signal coverage, program formats, ID slogans, and lots of other information such as maps and commentary. The book is \$4.50 (plus 50¢ postage) from FM Atlas, Box 251-KSC, Kearney NE 68847.

OUT WITH THE NEW, BACK WITH THE OLD!

I've been noticing that the FCC has started issuing all sorts of flashy and exotic callsigns to stateside hams, things like KH3F, AL2A, NC4H, KE6CA, KC8RL, and the like. At first I thought these were DX stations I was hearing but eventually learned that they were all stateside. What happened to the "regular" callsigns? I thought they were much more appropriate and representative of hams in the U.S., calls such as W2YCP, K7AGY, WA6SYV, etc. Also, I think that overseas operators knew immediately to whom they were speaking with the "regular" calls, rather than with these new-style abominations. If and when I get a ham ticket I'm going to ask for a "regular" callsign.

Charles Latham, Jr.
Tarzana, Calif.

Many of the holders of those new style calls not only wanted to have one for themselves, but "traded in" their existing "regular" callsigns in order to get one! Some of those operators willingly gave up callsigns which they had held for decades, and by which they were well known throughout the world. The FCC's current policy on ham radio callsigns is quite complex and consists of issuing various types of callsigns from 4 different "groups," based upon the type of license a person holds. At the present time they are not issuing what you refer to as "regular" callsigns—those seem to have become part of a bygone era! Better get used to the idea.

EXCITING LISTENING

I recently obtained a copy of your "Top Secret Registry of U.S. Government Radio Frequencies," and it's opened up a whole new world for me. In fact the Republican (GOP) Convention was held not far from my QTH and your book enabled me to hear all manner of federal security operations. It was one of the most exciting weeks I have ever experienced on my scanner; all thanks to you. And, by the way, Ronald Reagan's code name appears to be "Raw Hide."

Keep up the good work! Enclosed is a photo of my monitoring post.

James McNamara,
Grosse Point Farms, Mich.



Thanks for the kind words, Jim. Response to the book has been nothing short of overwhelming and I'm happy to hear that it's increased the capabilities of your scanner. As you may know, about half the 10/hi/UHF band frequency coverage on a scanner is reserved for government communications uses; and if my Registry aided you in knowing what to listen for on those frequencies, then it's serving its intended purpose!

CALLSIGN CLUTTER

I notice that all CB station licenses are assigned callsigns which are similar. It appears as if there is a callsign "block" which goes from KAAA-0001 through KZZZ-9999 which the FCC has set aside for exclusive CB use, or are callsigns of this type used for other radio services too? Does the FCC set aside types of callsigns which are assigned for only one specific radio service?

James R. Talantino,
Keokuk, Iowa

The types of callsigns you suggest as a "block" for exclusive CB use are also assigned to Radio Control and General Mobile Radio Service licensees. While each radio service has a certain type of callsign assigned for its use, that same callsign format may also be used in several radio services. Four letter callsigns starting with the letter "K" or "W" can be assigned to broadcast stations, but ships are also given such callsigns. Some callsigns beginning with the letter "N" (such as N1BX, N3RA, N4KJ, etc.) can be assigned to aircraft as well as ham operators. It's a little confusing, but somehow they work it all out in the computer—which only once in a while starts issuing the same callsign to different licensees.

PUBLIC SAFETY QSL's?

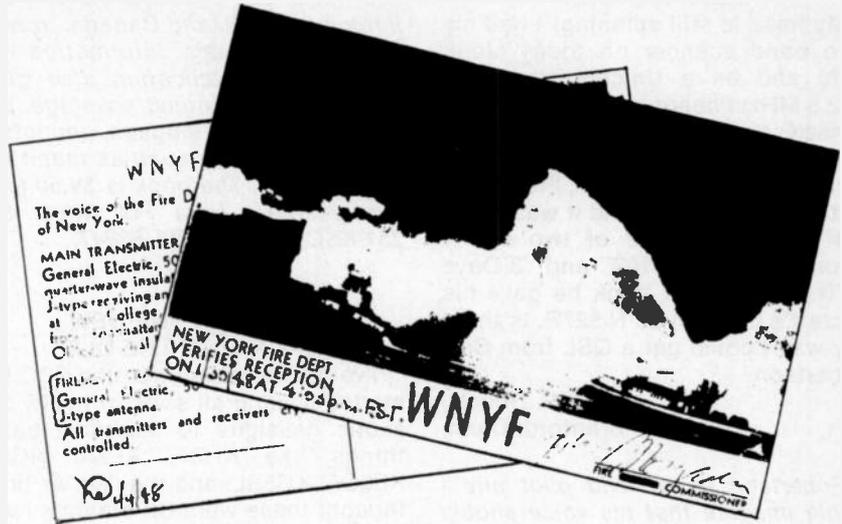
In a recent Monitor Post column it was mentioned that some public safety stations have actually issued their own printed QSL cards. It seems to me that such a policy would serve to encourage listeners from the ranks of the public! Quite a different image of interested citizens than S9 mentioned Motorola having, what with their current ad campaign depicting scanner owners as undesirable characters, wouldn't you say? And let's have a look at one of those QSL cards while we're on the topic! In addition to writing this letter to you, I have also written to Motorola (as S9 suggested) telling them that I am a scanner owner and also a law abiding citizen.

Stu McGuire, KWA7DL,
Everett, Wash.

The card mentioned in Rick's recent Monitor Post column as having been sent out by the New York City Fire Dept., was at one time a popular trophy for any public safety monitoring fan. These days only a few of these cards exist and they're in the hands of those of us who were into the hobby at least 20 or more years before anybody ever saw or even heard of a "scanner." Here's a look at one of the old New York Fire Department QSL's, issued to me back in 1948 (I was but a lad at the time) for reception of one of the NYFD fireboats on 35.58 MHz. The card was also used to verify reception of station WNYF, their main 500 watt dispatching transmitter which used to operate on 1630 kHz (at the high end of the standard AM broadcast band and presently the home of many pirate broadcasters). WNYF had a signal which was reported throughout the hemisphere and they received many hundreds of reception reports each year which asked for QSL's!

THE LOWDOWN ON THE HIGH UP

You've made several references to the supposed health hazards of using radio equipment in the proposed 900 MHz Personal Communications band, most recently in your August issue "Mailbag" column. Don't you think that maybe all of us have gotten caught up in the "environmental hazard and pollution" syndrome of the past few years? Every time we see or hear the news we're bombarded with new revelations about how everything we eat, drink, breathe, or use will certainly destroy our land, water, forests, cities, or bodies. How come nobody said any of these things



before the hysteria began about 5 or so years back?

Harry Beckman,
Mandan, N.D.

I can't deny that a certain hysterical frenzy has taken place over the past few years and while some of the things you hear these days seem pretty far out, there's still no denying that there really is reason to believe that certain things do pose possible hazards. At least as long ago as 1966 a seminar of science writers and a psychology professor reported upon the effects of certain UHF radio signals upon laboratory rats. They found that the signals caused a brief initial period of hyperactivity followed by a long period of sluggishness. The signals to which the rats were subjected were between 320 and 945 MHz. The intensity of the signals was no more than a person might receive if they lived within 10 to 20 miles of a UHF TV station. Exposure periods ranged between 20 and 75 days. We reported on this in our April, 1971 issue. Of course there are a myriad of proven or suspected problems concerned with the effects of UHF radiation which you can add to these findings. You can chalk it all up to hysteria but I think I'll keep my interest in 900 MHz limited to hearing other people's conversations rather than joining into the ratchet jawing myself—at least for the present.

NORTH/SOUTH/EAST/WEST OF THE BORDER

Why have several governments been so reluctant to legalize CB radio? Seeing as how the residents in those nations are already using CB sets, wouldn't it make a lot of sense to at-

tempt to legalize it, if only to "get it under control?"

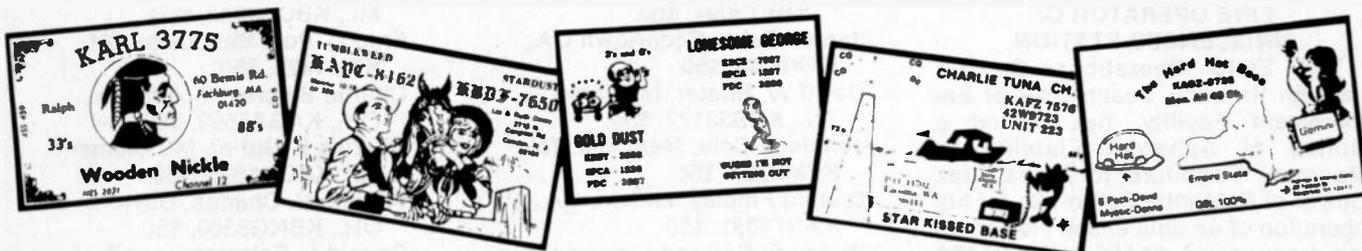
R. J. Toppwell
Raton, N.M.

That's sort of a multi-million dollar multi-faceted question, Old Top! For starters, let's not forget that American CB has been the role model for CB type operations which have sprung up in other nations, with and without sanction. Some of those nations have seen that it has been virtually impossible for the FCC to "get it under control;" moreover not too many other governments have had a helluva lot of luck in hanging onto the reins of CB radio once it catches the fancy of local residents. This somewhat scares those in power; a matter further complicated (at least in some nations with unstable or insecure governments and a volatile or revolutionary citizenry) by the fact that a large number of CB radios in the hands of the public might be pressed into service for various anti-government purposes—for broadcasting/receiving propaganda, for inciting revolution, for revolutionary or terrorist "missions", for espionage, for smuggling, and othe little things along those lines. Also, each nation has its own groups for/against CB; some have more clout than others. In the U.S.A. it was the truckers who first helped the popularity of CB, for instance, but long-haul truckers in Europe are little interested in CB radio because of language problems and licensing complications—during one trip the vehicle may cross 3 or 4 border frontiers! And speaking of driving, the worst tasting hamburger I ever had was sprung on me when I stopped at the A&W place in your home town while driving through New Mexico last year.

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.

Bar-B-Q/ Seal The Roberson's Box 11014 Parkwater Stat. Spokane, WN 99211
Buffalo Skinner P.O. Box 7515, Lexington KY 40555
Double A SSB-296A The Parm's, P.O. Box 126 Nashville, MI 49073
Tango 5 Box 292, RR 3, West Hotdog, IL 62896
Turtle/Muttley Loys & Rosemary Marsh 4971 Hwy. H. Kewaskum WI 53040
KFN-4010 218 E. Vine St., Osceola IA 50213

KAXO-9558 Paul H. Miller, 361 Tracy Lane, Grand Island, NY 14072
KMOV-2120 Jim Thompson, Route 6 Box 90A Ada, OK 74820
Unit 76 P.O. Box 14786, Philadelphia, PA 19134
KHN-4892 Mike Zimmer, 2917 Coventry Blvd., N.E., Canton OH 44705
Big Dollar/Unit 183 Pres, U.S. of Texas QSL Swap Club, P.O. Box 183 Henderson, TX 75652
KQL 5845 John J. Vinsko, 34 Weston Place, Shenandoah, PA 17976
Captain America David Haire, 2406 Prince Ave., Tifton, GA 31794
Mr. Magic/Rag-Muffin Harold & Betty Martin 101 Diplomat Plaza, Norton, IL 61550
Unit-541 11632 Las Luces, Santa Ana, CA 92705
Unit SSB 2087 B 212 Bonnie Lane, Willets CA 95490
KND-6021 Al Eisner (50) Siyanco (Saudi Arabia) APO New York 09017
R-Cat-6 Al Eisner (50) Siyanco (Saudi Arabia) APO New York 09017
Unit 431 Ethel, P.O. Box 931, Wappingers Falls, NY 12590
SSB-9718 Jack B. Richter, 23 E. George Street, Yoe, PA 17313
Hard Hat 22 Teetsel St., Saugerties NY 12477

Unit 720 Fay, P.O. Box 5983 Augusta, GA 30906
Lucky-Lady Hazel Gettinger, 78 Hudsonale St., Weatherly, PA 18255
6W132 Henry M Koski 19 Squam Rd., Rockport, MA 01966
SSB-1406-A P.O. Box 265, Verona, PA 15147
KGC-1045 The Blanchettes, 1 South St., Danielson, CT 06239
Big John/Snuggles P.O. Box 9266, Phoenix, AZ 85068
SSB-4392-A M Spranger Jr., Rt 1 Perry Lake, Fairview, MI 48621
KPM 0221 78 Hudsonale St., Weatherly, PA 18255
Cutty Sark J. Renshaw, 8361 Woody Dr., Norfolk, VA 23518
KAST-6919 Mildred S. Bugbee Route 1, Box 39, Pennville, IN 47369
SSB-1186-B L.P. Sell, Sr 9423 Waverly Dr., El Paso, TX 79924
KJO-4014 Old Samsula Rd., Rt. 1 Box 71 H6B, Daytona Beach, FL 32014

**Coming Next Month:
S9'S SPECIAL
SINGLE SIDEBAND
ISSUE!**

WASHINGTON OUTLOOK

WHAT'S HAPPENING AT UNCLE CHARLIES'

FINE OPERATOR OF UNLICENSED STATION

The Field Operations Bureau, through its Long Beach Special Enforcement Facility, has issued a Notice of Apparent Liability to Monetary Forfeiture to Amos Cruz Quiroz of El Monte, California, for his operation of an unlicensed station on the frequencies 27.555 MHz, 27.560 MHz, and 27.925 MHz in violation of Section 301 of the Communications Act of 1934, as amended. The amount of the forfeiture is \$750. In addition to its "potential" for disruption of authorized communications, the FCC said, "the station also caused severe interference to home electrical entertainment equipment of those living near it." The forfeiture was assessed under Section 1.80 of the Commission's Rules in implementation of the expanded forfeiture provision of Section 503(b) of the Act.

FCC FINES 67 CB'ERS \$3,500 FOR ILLEGAL RADIO OPERATIONS

The Commission has reported that 67 Citizens Band radio operators were notified of fines for illegal operations totaling \$3,500.

The fines were imposed by FCC field offices on behalf of the Private Radio Bureau for violations of various sections of the rules.

These sections involved communicating over 150 miles, failure to identify by assigned call sign, using a frequency not authorized for CB stations, overheight antenna, power in excess of four watts and repeated failure to reply to Commission notices.

Following is a list of those CB'ers fined:

Maureen J. Dahl, Fremont, CA.,
KBGK8319, \$50.
William S. Handlin, Fremont,
CA., KAYP7034, \$50.
Dennis W. Kester, Hayward,
CA., KAIC9024, \$50.
Dennis A. Pacheco, Fremont,
CA., KAYO2106, \$50.
Robert M. Mayberry, Denver,
CO., KLM4411, \$25.
Harold McCollum, Denver, CO.,

KBET3094, \$50.
James Babb, Cedartown GA.,
KFY9043, \$50.
David W. Brister, Memphis,
TN., KDB38122, \$50.
Jennings Cole, Memphis, TN.,
KFM2397, \$50.
Donald Findley, Macon, GA.,
KART4031, \$50.
Buddy F. Galbraith, Knoxville,
TN., KTJ2630, \$50.
Eddie Holder, Anniston, AL.,
KAON0292, \$50.
Wayne Morgan, Dothan, AL.,
KJG3444, \$50.
Richard Stone, Graniteville,
SC., KACI9343, \$50.
Carlton E. Aplin, Defuniak
Springs, FL., KTM9494, \$50.
Charles A. Brogdon, Rossville,
GA., KBKY3591, \$50.
James A. Crook, Memphis, TN.,
KZP8691, \$100.
Royce E. Davis, Sr., Memphis,
TN., KDC9897, \$25.
George D. Elliott, Pensacola,
FL., KAYL8788, \$25.
James A. Holmes, Memphis,
TN., KSW4404, \$50.
John A. McDowell,
Chattanooga, TN.,
KABE8445, \$25.
Florence Miller, Pensacola,
FL., KZL0756, \$50.
Ken H. Moyers, Chattanooga,
TN., KWL8546, \$25.
Ronald L. Odom, Chattanooga,
TN., KXR6064, \$25.
Gerald L. Rinehart, Ft.
Oglethorpe, GA.,
KBHO4504, \$50.
Elmer L. Johnson, Springfield,
IL., KLZ3645, \$25.
Samuel L. Ford, Sr., New
Orleans, LA., KQY9214, \$50.
Samuel Pearson, New Orleans,
LA., KBJW7025, \$25.
Rooster Channel Jumpers
Social Club, New Orleans,
LA., KPI7864, \$25.
Thomas C. DiGiorgio,
Baltimore, MD.,
KAPF0825, \$100.
Claude Vailes, Suitland, MD.,
KABC1258, \$50.
Richard A. Duenaz, Port Huron,

MI., KBCD5842, \$50.
Fred C. Pou, Sandusky, OH.,
KTM1422, \$50.
Charlie Belcher, Columbus,
OH., KAGA5699, \$50.
Charles L. Butler, Mt. Clemens,
MI., KADN1525, \$50.
William V. Charles, Dayton,
OH., KBNG8356, \$50.
Ronald L. Foltz, Mesa, AZ.,
KAGM0852, \$50.
Richard Ford, Columbus, OH.,
KXQ7845, \$50.
George E. Hampton, Columbus,
OH., KYR7325, \$75.
Harry Hood, Jr., Indianapolis,
IN., KAEV2761, \$25.
Jerry J. Howard, Indianapolis,
IN., KLY6802, \$75.
Nathaniel R. Johnson, Detroit,
MI., KBOD7608, \$125.
Albert R. Logan, Columbus,
OH., KQN5771, \$50.
Eddie L. Marcum, Oakhill, OH.,
KLS2615, \$50.
Vinita McCaleb, Detroit, MI.,
KAEY2208, \$25.
Michael R. Reecer,
Indianapolis, IN.,
KBLY6365, \$50.
Arthur K. Thompson,
Columbus, OH.,
KBP0188, \$75.
Page Trapp, Saginaw, MI.,
KLY2944, \$125.
Jerry L. White, Indianapolis,
IN., KBHZ9870, \$25.
Robert Wilson, Sr.,
Mt. Clemens, MI.,
KDH8300, \$275.
Eugene Alexander, Chicago,
IL., KNR9567, \$25.
Louis J. DiBenedetto, Metairie,
LA., KJZ3900, \$50.
Charles E. Diggs, River Ridge,
LA., KBFR4341, \$50.
James R. Jones, New Orleans,
LA., KAXZ0378, \$50.
Eugene J. LeBlanc, New
Orleans, LA. KMO3113, \$100.
David E. Marshall, Beaver City,
NE., KIZ1308, \$25.
Isaac Moses, New Orleans,
LA., KAHW7045, \$25.
Buford D. Neblett, Cumberland
Furnace, TN., KLM0866, \$25.

William H. Reisner III,
Pinedale, WY.,
KALP9967, \$50.
William S. Saller, New Orleans,
LA., KAUI5452, \$50.
Francis E. Scott, Leesburg,
VA., KBEL1701, \$25.
Mose Turner, Little Rock, AK.,
KMT72206, \$50.
Billy D. Ward, Turlock, CA.,
KHB8165, \$50.
Sharon K. Washington, Denver,
CO., KBIN9733, \$50.
Mary Furgess, Philadelphia,
PA., KAIU9010, \$25.
Ricky D. Phillips, Kannapolis,
NC., KBFC2007, \$50.
Edward Raines, Jr.,
Ruckersville, VA.,
KJP9379, \$50.

REVISED AMATEUR RADIO EXAMINATIONS

Revised amateur radio examinations went into use last June at all FCC offices where exams are given. Each office switched to the new tests on its first regularly scheduled examination day after June 1, 1980.

The new tests contain material taken directly from the new "STUDY GUIDE for the AMATEUR RADIO OPERATOR LICENSE EXAMINATIONS" (PR Bulletin 1035) dated January 1980. That material reflects the latest amateur radio practices and technology.

The revisions replace written tests that are several years old, but they do not change the Morse code telegraphy tests, which also are required for each license.

All the new tests consist of multiple-choice questions in nine general subjects:

Rules and Regulations; Circuit Components; Antennas and Feedlines; Electrical Principles; Practical Circuits; Radio Wave Propagation; Signals and Emissions; Operating Procedures; Amateur Radio Practice.

The number and difficulty of questions varies with the class of the operator license:

LICENSE	EXAMINATION	LEVEL
Novice Class	Element 2 20 questions	beginner
Technician/General Class	Element 3 50 questions	basic
Advanced Class	Element 4(A) 50 questions	intermediate
Amateur Extra Class	Element 4(B) 40 questions	advanced

Persons interested in applying for an amateur radio license should contact the FCC field office nearest them for examination schedules, application forms, or study guides. Informa-

tion about amateur radio is also available in public libraries, at local radio clubs or stores, or from the FCC's Private Radio Bureau, Washington, DC 20554.

ARRESTED FOR UNLICENSED OPERATION

David Lee Grimm of Garden Grove, Calif., was arrested April 24, 1980, by U.S. Marshals. Radio equipment valued at approximately \$8000 was seized from his home. Included in the equipment were four linear amplifiers, two amateur radio transceivers, and one CB radio transceiver.

The arrest and seizure were the result of a three-year long investigation of Grimm's radio operations by the FCC's Special Enforcement Facility, in Long Beach, Calif. In 1977 an FCC fine of \$50 was issued to Grimm which he did not pay. In 1978 a license revocation hearing was held in Los Angeles before an FCC Administrative Law Judge. As a result of that hearing Grimm's CB Radio license was revoked. In 1979 FCC inspectors again detected Grimm operating on 27.900 MHz. Grimm refused to allow the FCC to conduct an inspection of the radio station in his home. Shortly thereafter, he was again transmitting on a U.S. government frequency. Grimm's neighbors reported interference to their home electronics entertainment equipment as a result of the illegal radio operation. Also, later in 1979, Grimm was served with a written notice warning him of the penalties of unlicensed radio operation. In 1980 Grimm was again detected operating on another government frequency.

REVIEW BOARD SCHEDULES AMATEUR RADIO CASE

The FCC Review Board scheduled an oral argument in the proceeding involving the Amateur Radio Licenses of William M. Rogers of Oklahoma City, Okla.

In the Initial Decision released

suspended his Amateur Technician Class Operator License and denied his application for an Amateur General Class Operator License.

Judge Miller found that Rogers had "deliberately engaged in unlawful conduct and had been less than candid in communications with the Commission on these matters."

The Board allotted Rogers and the Private Radio Bureau each 20 minutes for argument, adding that Rogers could reserve part of his time for rebuttal.

C. PHYLL HORNE, RETIRED FCC EXECUTIVE, DIES

C. Phyll Horne, 59, a retired executive at the Federal Communications Commission, died May 22.

Horne retired in February as chief of the FCC's Field Operations Bureau, culminating more than 18 years of service in the agency. Field Operations is the largest of FCC bureaus and is comprised of field offices and monitoring stations at 50 locations throughout the United States.

Horne previously held positions in the office of Chairmen Richard E. Wiley, Dean Burch and Rosel Hyde and had served as deputy chief engineer of the Commission. Prior employment included service in the Department of Commerce, Department of the Army and the Civil Defense Administration.

He served as a consultant engineer during the 1950's with the Washington firm of James C. McNary Assoc., specializing in radio broadcasting and supervising the construction of television and radio stations throughout the United States. Horne served in the U.S. Army.

During his service with the Commission Horne provided leadership in the area of spectrum management in the United States and as a representative in International Radio Conferences and as a consultant to foreign governments in communications matters.

Horne was a registered professional engineer and a member of the IEEE, the Society of Broadcast Engineers and Federal Communications Consultant Engineers. He was a graduate of the University of Utah and completed postgraduate studies at the University of Chicago, Harvard and MIT.

He was a native of Tremonton and Salt Lake City, Utah, but had lived in the Washington area for the past 34 years and was a resident of Falls Church, Va., at the time of his death.

FCC JUDGE REVOKES LICENSE OF AMATEUR RADIO OPERATOR

FCC Administrative Law Judge Edward Luton has revoked the Amateur radio station license of Alexander G. Sullivan of Traverse City, Mich., for using indecent language over the air.

In addition to revoking Sullivan's license for station WD8NLS, the judge also suspended his General Class radio operator license for term and denied his application for an Advanced Class operator license.

Judge Luton noted that on August 1, 3, and 5, 1978, FCC personnel monitored Sullivan's radio transmissions in which he was heard to use indecent language in violation of Commission rules. Moreover, on September 12, 1978, Sullivan further violated the rules by rebroadcasting a transmission, including music, of a commercial FM station.

Despite Sullivan's assertion that he would not have committed the second set of violations had he been informed beforehand that FCC personnel had already monitored his over-the-air conversations, Judge Luton pointed out that this in no way mitigated his indecent radio transmissions, nor could his claim of reform and promise of future compliance negate the consequence of his past conduct.

The judge added that Sullivan's conduct was contrary to the public interest and he did not possess the qualifications to remain a Commission licensee in the Amateur Radio Service.

"OUTBANDER" OPERATIONS CLOSED DOWN

The U.S. Attorney's Office in Baltimore has completed a local crackdown on illegal activities of Citizens Band radio stations. The crackdown comes as a result of an extensive investigation by the FCC into the operation of illegal radio stations.

Most of the illegal operations involved operating modified CB radios on unauthorized frequencies and with powers in excess of that authorized. The FCC says that when CB'ers operate out-of-band they cause interference to other authorized radio stations or television reception. Teams of U.S. marshals executed five simultaneous warrants in the Baltimore area. Approximately \$5000 worth of equipment was seized.

The District Offices in Baltimore and Hyattsville, Maryland, initiated the crackdown as a continuing effort by the FCC to help utilize the radio spectrum, a limited national resource, more efficiently and effectively, and also to keep CB "problems" to a minimum.

Federal law provides penalties of up

to \$500 per day per offense for violations of FCC rules and regulations, and one year imprisonment and/or a \$10,000 fine for the unlicensed operation of CB or other radio transmitting equipment.

\$20,000 WORTH OF CB RADIO EQUIPMENT FORFEITED

Information supplied by Harold Bender, Assistant U.S. Attorney for the Western District of North Carolina, resulted in an investigation in the Charlotte, North Carolina, area by the Norfolk District Office of the FCC of the sale of illegal CB linears and other modified CB radio equipment. This investigation resulted in the criminal prosecution of Mr. Charles Groner of Groner Sales Company, Lucia, North Carolina. Mr. Groner entered a plea of guilty to the charge of selling an external radio frequency power amplifier, a violation of the Communications Act of 1934, as amended. In addition, some of the CB equipment had been modified to operate on U.S. government frequencies used by the military and other agencies. Mr. Groner stated that he valued the forfeited equipment at more than \$20,000.

J. J. Freeman, Engineer in Charge of the FCC's Norfolk District Office, claimed that the forfeited equipment, if sold, would have caused widespread interference to television reception and various other electronic home equipment such as hi-fi's, FM tuners, AM broadcast receivers and intercom systems. CB linears have even caused interference to telephones and pacemakers used by heart patients; or, at least the FCC *claims*.

FCC JUDGE REVOKES LICENSE OF TALLMADGE, OHIO, CB'ER

FCC Administrative Law Judge John H. Conlin has revoked the license of Fred H. Davisson of Tallmadge, Ohio, for station KXH-3642 in the Citizens Band Radio Service.

He also denied Davisson's application for a Novice Class Amateur radio operator and station license, but indicated that because of Davisson's "cooperation and reform" he would be allowed to reapply within 90 days after the initial decision becomes effective.

Judge Conlin noted that on September 26, 1978, Davisson had used higher powered Amateur radio equipment to transmit on 26.815 MHz, a frequency assigned to the U.S. government. Moreover, Davisson had not used his FCC-assigned call sign and his CB station antenna exceeded the 60-foot height limitation by 18 feet.

Davisson explained that he had increased the antenna height and used

the Amateur equipment, which could transmit on CB frequencies, to eliminate interference to a neighbor's television set. As for using the government frequency, he said he had done this to escape the crowded CB band and the abusive behavior of other CB operators.

Concluding that Davisson had willfully violated the CB rules and used his CB license to transmit over Amateur radio equipment, Judge Conlin ruled that revocation of his CB license was clearly warranted.

However, the judge indicated that because of Davisson's candor, cooperation and remorse over his transgressions, an attitude which had impressed the Private Radio Bureau, Davisson would be allowed to reapply for an Amateur radio operator's license within 90 days rather than the six months recommended by the Bureau because of the time that had elapsed since the Bureau's recommendation.

CLOSE ILLEGAL RADIO OPERATION IN MIAMI

During 1979 and early 1980 a radio station operating on amateur frequencies was observed transmitting broadcasts of a political nature in the Spanish language aimed at Cuba. The transmissions have been the subject of interference complaints from radio amateurs in the U.S. and neighboring countries.

The station, located in Miami, Florida, was finally closed by U.S. marshals accompanied by FCC agents executing a federal search and seizure warrant. Several thousand dollars worth of high-powered amateur equipment was seized at the station.

The U.S. Attorney's office, Miami, Florida, is handling prosecution of the operator. Unlicensed radio broadcasting is a violation of Section 301 of the Communications Act of 1934, for which there is a maximum penalty of a \$10,000 fine and/or one year imprisonment.

The Commission's long range direction finding network and the Miami District Office were instrumental in determining the location and identification of the operator and the station.

GROUP OF UNLICENSED OPERATORS PROSECUTED

Each of five Kansas City area CB operators pleaded guilty to one count of unlicensed operation on unauthorized radio frequencies. Sentences ranged from one year on probation to fines of \$400. Approximately \$5000 worth of

illegal equipment seized during the investigation was forfeited to the government. The charges stemmed from the investigation by the FCC into the illegal operation on radio frequencies not authorized for use by Citizens Band radio operators.

The five individuals were believed to be members of a group known as the *Jackass Club* with headquarters in Kansas City, Kansas. The identified club members transmitted on a frequency which is authorized solely for U.S. government use and some used modified equipment capable of power output in excess of 25 times the normal CB limit. The individuals involved were David Schroeder, Shawnee Mission, KS; Donald T. Ruf, Kansas City, KS; George E. Showalter, Shawnee Mission, KS; James A. Wood, Sr., Kansas City, KS; and Russell E. Dickerson, Shawnee, KS.

The investigation was concluded at the request of James P. Buchele, U.S. Attorney for the District of Kansas and was prosecuted by Assistant U.S. Attorney, Vernon E. Lewis. Evidence in the case was obtained by engineers of the FCC Kansas City District Office.

LICENSING AND CALL SIGN ASSIGNMENTS FOR AMATEUR STATIONS SIMPLIFIED

The FCC has simplified its licensing and call sign assignment systems for stations in the Amateur Radio Service.

On March 11, 1977, the FCC had proposed to simplify the licensing structure by discontinuing the issuance of all station licenses other than primary and space station licenses—i.e., it would no longer issue secondary, special event, club, military recreation, Radio Amateur Civil Emergency Service (RACES), repeater, auxiliary or control station licenses.

However, due to the deep concern of Amateur licensees over the elimination of club, military and RACES licenses, on February 23, 1978, the Commission issued a further notice proposing to assign distinctive call signs to these stations. Under that proposal, the prefixes WK, WM and WC would be assigned to club, military recreational and RACES stations, respectively. Moreover, new and existing club licensees would have had to show a compelling need for such licenses and no trustees would have been required for club stations.

These proposals, especially assignment of the WK prefix, also met with opposition from licensees who stated they wanted to keep their present call signs because they did not want club stations identified as a class, adding that their call signs fostered a sense of

identity among club members and fostered good will in the community. Nor did they feel that a club should have to show a compelling need to get a license. They also believed it was desirable to have someone (a trustee) in charge who would be responsible for the station's proper operation.

The Commission decided that no new call signs for club, military recreation or RACES stations would be assigned. However, it felt that the public interest would be served by accommodating present licensees of these stations by granting modification and renewal of existing licenses. In this connection, it waid, a change in a club trustee, person in charge of a military recreation station or a responsible civil defense official would constitute a modification, as would a change in station name or location.

The FCC said it anticipated that the desire for a new license would arise mostly in connection with a club station, and it expected that club members would select a licensed amateur operator as trustee and then use the trustee's primary call sign as the club's.

It added that there would be no objection, after the station had identified with the primary station call sign, to the control operator adding the club's name as further identification.

The Commission pointed out that there was merit in limiting the proliferation of call signs since it comported with its efforts to deregulate the Amateur Radio service. Moreover, the tradition for self-regulation by Amateurs would continue to assure that full responsibility for a station's operation would be borne by the primary station licensee.

WHAT WATTS!

On August 1, 1980, a Federal Grand Jury in New Orleans returned an indictment charging Samuel L. Ford, Sr. with two counts of criminal law violations relating to the illegal use of a Citizen Band radio.

The indictment charges that Ford violated regulations of the Federal Communications Commission by attaching three linear amps to his station. The indictment further charges that Ford used transmitter power at his Citizens Band radio station in excess of 5,000 watts! (The maximum allowable transmitter power is 4 watts.)

U.S. Attorney John Volz claimed that the defendant's conduct in using external amplifiers of such great power "caused hundreds of persons surrounding the area of his amplifier to be deprived of the unhampered use of

their television sets, telephones, and other electronic equipment." Volz further stated that "conduct of this nature as well as other criminal conduct relating to the use of Citizens Band radios will be vigorously prosecuted."

The indictment resulted from the evidence produced through and conducted by the FCC's New Orleans Office at the request of W. Glenn Burns, Assistant U.S. Attorney.

If convicted, the defendant Ford faces a maximum sentence of two years imprisonment and a \$20,000 fine.

\$6,000 WORTH OF LINEAR AMPLIFIERS SEIZED IN CHARLOTTE, N.C.

U.S. Marshals, accompanied by engineers of the FCC Norfolk Office, seized approximately \$6,000 worth of Citizens Band linear amplifiers from Tyson's Electronics in Charlotte, North Carolina. The seizure was the climax of an investigation conducted at the request of Mr. Harold Edwards, the U.S. Attorney for the Western District of North Carolina.

The FCC has long claimed that the use of linear amplifiers can cause widespread interference to television reception and to other licensees in the Citizens Radio service.

REVOKE AMATEUR/CB RADIO LICENSES OF TUCSON, ARIZ. OPERATOR

FCC Administrative Law Judge John H. Conlin revoked the license of Bernard J. Winner of Tucson, Ariz., for Amateur radio station WD8CMB and for Citizens Band station KRN-4329.

The judge also affirmed a previous order suspending Winner's Technician Class Amateur operator's license for the remainder of its term.

The decision was based on a June 21, 1978 finding by Commission personnel in Tucson that Winner was operating on an unauthorized frequency. Further investigation showed that the licensee had modified his radio equipment to permit transmission on 27.440 MHz, a frequency assigned to the Industrial Radio Service.

On July 18, 1978, the Commission sent Winner an official notice of violation. Winner responded by admitting the violations and stated that he would not commit them again.

An Initial Decision released July 11, 1979, held that the licensee had violated two sections of the Commission's Rules; operating on an unauthorized frequency, and failing to identify his station by its proper call sign and ruled that his outstanding authorizations should be revoked.

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DANGER!



FERROEQUINOLOGIST AT LARGE

Hi, I'm Dick Cowan. I'm the publisher of S9. I'm also one of the country's most ferocious ferroequinologists. You don't recognize the word? It translates out to "collector of old toy trains."

Anyway, I have bought hundreds of old trains from S9 readers in the past six years, but my hunger for a bigger collection keeps growing. That's why I want you readers to know that I'll pay enormous prices to add good trains to my collection.

What am I looking for? Primarily Lionel, and that includes O gauge or standard gauge. But I'll also consider old Marklin, Ives, pre-war American Flier, and several others. No HO or N gauge, please. I wouldn't know what to do with them.

How much will I pay. Perhaps a few hundred dollars, perhaps a few thousand. It depends on what you've got and what condition it's in. Just as an example, a Lionel 5344 engine can bring a thousand dollars or more, and lots extra for the freight or passenger cars. A 400E will bring at least as much. Complete sets, especially in the original boxes and set cartons can be worth as much as \$5,000. In other words, I'm very serious about this whole train collecting thing.

If you've got old trains stored away in the basement or attic, just jot down the numbers on the engines and cars. A polaroid picture will help, but it isn't all that necessary. I want those trains and I'll go to any lengths to get 'em. Why not drop me a line, or better still, give me a call.

Richard Cowan, Publisher
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TM

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*Including optional mounts at extra cost.

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3. It's proven best!

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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."

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

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...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. Collett, 207 McFee, Bastrop, LA

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

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

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

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

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