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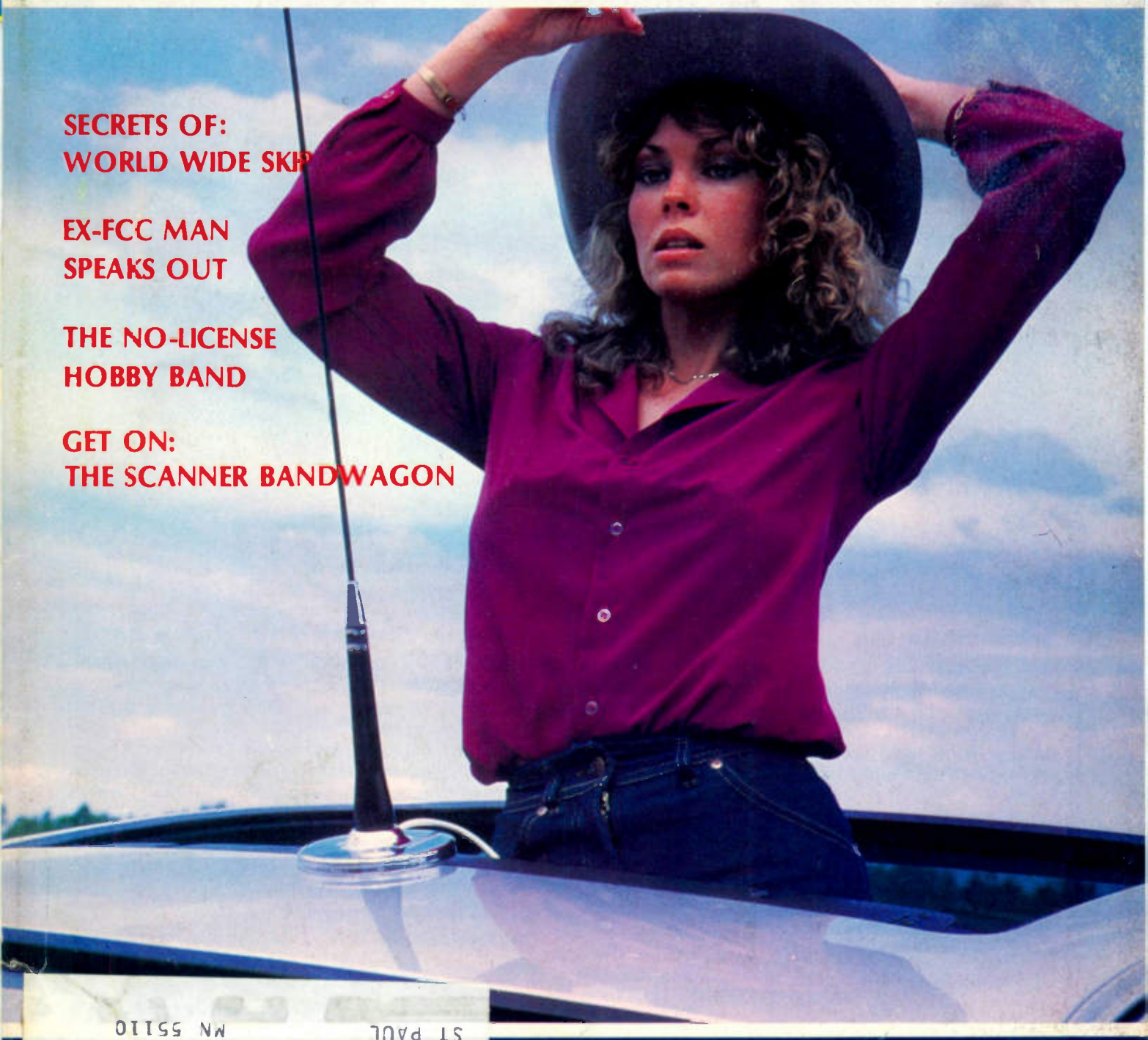

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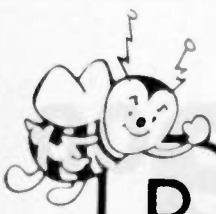

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S9 HOBBY RADIO

AMERICA'S OLDEST AND LARGEST CB MAGAZINE

VOLUME 20 NUMBER 10 OCTOBER 1980

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Special Features

Regular Monthly Features

Cover photo courtesy of Shakespeare

*Not included in the issue containing Personal Communications.

Personal Communications is a special supplement to S9 sent only to dealers and other members of the industry. This month it begins on page 27 of the special trade edition.

WARNING: **INDIVIDUALS INSTALLING CB OR OTHER ANTENNAS ON THEIR HOMES SHOULD BE CAUTIONED THAT CONTACT WITH POWER LINES MAY CAUSE SERIOUS INJURY OR DEATH. READERS ARE ADVISED TO HANDLE ANTENNA INSTALLATIONS WITH GREAT CARE, AND TO WEAR INSULATED BOOTS AND RUBBER GLOVES WHILE WORKING NEAR POWER LINES.**

S9 HOBBY RADIO
AMERICA'S OLDEST AND LARGEST CB MAGAZINE

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CB NEWSWIRE

YOUR CB NEWSPAPER OCTOBER 1980

Communications Equipment Demo

The Federal Aviation Administration hosted a two-day demonstration in Dallas, Texas, of advanced high frequency (HF) communications products and systems produced by Rockwell International Corporation's Electronic Systems Group.

According to Col. Frank J. Tomlinson, Chief of FAA's Emergency Operating Staff, the FAA is currently updating its communications equipment to maintain continuity of agency functions during national emergencies and general guidance on major natural disaster planning factors.

Featured at the FAA-hosted event were the HF-80 advanced high frequency radios manufactured by Rockwell's Collins Telecommunications Products Division in Cedar Rapids, Iowa. Also demonstrated was the TCS-4100 HF transportable system produced by the Collins Communications Systems Division in Dallas, Texas.

The Collins HF-80 equipments are now in service in more than 30 countries. These off-the-shelf 1 kW to 10 kW receivers, transmitters and transceivers are highly reliable and maintainable.

As part of the emergency communications network improvement program, the FAA purchased a number of HF-80 equipments under a $200,000 contract awarded in September 1979, and is considering additional purchases in the future.

The Collins TCS-4100 is a compact and lightweight self-contained HF system. The Collins HF-80 equipments are featured.

The TCS-4100 was designed to provide reliable communications during national defense and disaster relief efforts: for industry, law enforcement, and diplomatic networks; and as an emergency backup to fixed communications systems.

A Collins TCS-4100 was deployed in tornado-stricken Wichita Falls, Texas in 1979 to restore emergency communications between Red Cross officials in that city and Dallas. The HF shelterized system also successfully completed tactical communications maneuvers during the 1979 Joint Service Solid Shield exercises at Ft. Bragg, N.C.

During the FAA-hosted demonstration at Andrews AFB, the Collins TCS-4100 allowed communications with military and FAA stations, in Seattle, Alaska, Hawaii, the Caribbean, Europe and South America.

Both the Collins HF-80 and TCS-4100 feature processor control to allow automatic frequency selection. Other features include: selective call, secure voice/data, simplified maintenance, and built-in fault isolation.

Representatives from other government agencies also attended the HF demonstration. These included Department of Defense (Navy, Air Force and Army), Department of State, CIA, FBI, and the Federal Emergency Management Agency.

March of Dimes Honors Illinois CBers

A citizens' band club in Illinois' Roxana-Wood area was awarded a trophy by the Metro-East March of Dimes after the CBers raised $1,221 for the March of Dimes during a "talkathon" in November.

Members of the "Troubleshooters" CB club spent 24 hours talking to others over their CB's and taking pledges for donations to the March of Dimes. During the same period, four other CB clubs in Madison County participated.

Wilma Fulks, "captain" for the Troubleshooters' talkathon, said club members began at 6 p.m. Nov. 2 and stayed on their CB's for 24 hours. Other CB'ers, contacted by the Troubleshooters, were told a telephone number to call to pledge their donations to the March of Dimes.

"We would ask other CB'ers to break for the March of Dimes," Mrs. Fulks said. "Then we would talk about all the things the March of Dimes does to help the children who have birth defects."

During the night, Mrs. Fulks said she conducted "sneak roll calls" to other members of the club to be certain they were staying awake.

A spokesman for the March of Dimes office in Edwardsville said a first place trophy was awarded to a Jerseyville CB club whose members raised $2,360 during the talkathon. Second place went to a Granite City club which raised $2,173 and the Troubleshooters received a third place trophy.

The 24-hour talkathon raised a total of $8,298 for the March of Dimes.

"They said we were the smallest club to work for the March of Dimes this year," Mrs. Fulks said, "and we are really proud our little club came up with this much money in donations."

CB Remote Microphone Patent

United States Patent No. 4,178,547 has been recently issued to Fanon/Courier Corporation.

The invention relates to a handheld microphone which may be used in association with any radio transceiver including Citizens Band radio transceivers.

The design provides for remote handheld selection and indication of the receiving or transmitting channel of the transceiver.

Fanon/Courier Corporation, of Pasadena, California, produces and distributes intercoms, public address amplifiers, horns, megaphones, FM scanning monitors, AM and FM paging products and CB radios.

CB NEWSWIRE

CB Wins Again!

At a Vallejo (Calif.) hospital—its official handle is Maxicare—they're still talking about what came over septugenarian John Murphy when the CB radio was installed.

It seems that from his first day at Maxicare he had moped about communicating only in grunts or sign language.

The belief was that, for whatever reason, he had lost the ability to talk. Then Helen Williams, Maxicare's activities director, acting on her notion that isolation from the outside world is perhaps the biggest problem for people in a convalescent hospital, decided to gamble $100 on a CB radio.

On a long hunch, the silent Murphy was brought by to hear the gizmo work. The next thing anybody knew, he had grabbed the microphone and, adopting the handle Tall Timber, was yammering away like a talk show guest. "He turned into a ratchet mouth and he never stopped, on or off the radio," Williams said.

"Not only that," said Donna Beard, also a Maxicare activities director, "he started kissing the women and refusing to go to church."

The transformation became so complete that soon there was no need to keep the heartily blasphemous Murphy in a skilled-care facility such as Maxicare, where patients are closely supervised and not free to come and go.

Today Murphy is residing at a bed-and-care facility. That represented a two-notch improvement into the most liberal of elderly care arrangements, one that is more a cooperative residence than a "hospital."

"That's the name of this game—to see people improve, not just watch over them," Williams said.

The other day, wheelchair-bound patients were lined up at the radio talking to "Casper the Friendly Ghost." Casper, a Vallejo woman, is one of the regular outside voices at the hospital.

"I just know her over that CB radio, but she's my friend. It's nice to be in touch with people out there," said Eddie Wilson, or "Gabby," as she waited her turn.

"I'm great. How's tricks with you?" Dizzy Lizzy, aka Nellie Blum, 88, was saying energetically to Casper.

Poppa Wheelie took over to remind her that he would soon turn 100 years old.

"Well, happy birthday, sweetheart," Casper said.

"It's a long time, isn't it?" Poppa Wheelie replied with a smile.

When a reporter complimented Casper—she wouldn't divulge her non-CB name—on the friends she had made at Maxicare, she said:

"Sure, you always make friends when you talk on CB. Make enemies too, I reckon."

A while back, Maxicare's CB'ers were offended to hear some freeway drivers besmirching the airwave with profanity. They sped off a letter of protest to the Federal Communications Commission, and things have cleaned up considerably since.

A woman patient was asked what she thought of people who cussed on a CB.

"Damn fools," she said.

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.

A Case of "Bad Ears"

M. H. Morphis, of Tyler, Texas, was given his rights by Federal Magistrate Houston Abel at an open court hearing in which the man was charged with using profane language over a CB radio one day last March.

This is a felony offense, an offense which can result in a penitentiary term.

Called before the bench, Morphis was asked if he had received a copy of the FBI's complaint and he said he had. Judge Abel then asked if he had read the complaint and the defendant said he had not.

"I don't have my glasses," Morphis told the judge.

Judge Abel then picked up the complaint, looked it over and then handed it to mild-mannered, soft-spoken federal prosecutor Dane Smith.

"Mr. Smith," the judge said, "I think you had better read this complaint to the defendant."

The complaint contains blue language which the FBI says was used by Morphis over his CB radio shortly before the FBI arrested the man.

In substance, the language accuses persons who reside in the northern part of the United States with having "loving" characteristics.

It also impugns the virtues of women who use CB radios.

Smith did not get right down into the reading of the complaint to the defendant.

He first suggested to Judge Abel that perhaps the defendant might have his glasses somewhere nearby.

The defendant said they were nowhere nearby.

Smith then asked Morphis if the FBI had told him what the complaint said when they gave him a copy of his arrest.

"I don't remember," the defendant answered.

The law says the defendant must either read, or have read to him, any complaint with which he is charged.

Smith, speaking softer than usual, began reading the complaint. At one point—where it got to the foul language—the govenment prosecutor turned to the defendant to ask if he could hear what was being read.

The defendant said he could.

Later, Judge Abel appointed Tyler attorney Craig M. Daugherty to defend Morphis and put the defendant under a $1,000 personal recognizance bond.

CB NEWSWIRE

Things Were Warm At The Chili House!

That was a birthday party one night last March in Ohio, not just for receiving but also for giving.

Lois King, 47, celebrated her birthday that night at the Gold Star Chili in Monroe where she works joined by the countless travelers of Interstate 75 who have become her friends over CB radio.

Truckers, housewives, factory people, state troopers and professional people had given her a gift of memory, a T-shirt with 204 handles, 204 CB friends. There were also others not within the CB circle who also gave and from that combined giving there was not only a blue T-shirt crammed with the varied colored letters for her CB friends but also a donation for Doty House.

The cost of the shirt was $525. That was for the lettering alone since Nancy Woodry of Monroe and her husband laid out the lettering and donated their creative hours to arrange over 3,000 letters across and around the material in every spare fraction of space. The shirt will hang on display at the Gold Star Chili.

But the final touch to complete the memory of the special birthday was the donation of over $650 to Doty House.

"I wanted to do something worthwhile with my life," said Mrs. King, "something more than just a T-shirt for remembering people. So I and some others felt we should do something local to help our own neighborhood. We decided on Doty House to help the kids."

Over a year ago Mrs. King, whose CB handle is Song Bird, had another T-shirt, a $144 shirt with over 50 CB handles from truck-driving buddies. This new one may well establish a record.

Joining Mrs. King for the event was another CBer celebrating a birthday, Little Man, one of her trucker friends from Dayton.

A CB "Dial-A-Mile"

Richard K. Reid of Oklahoma City, Oklahoma, has recently received a U.S. Patent for his invention, a device for Citizens Band radio users to determine highway location. Called "Dial-A-Mile" by the inventor, it is a portable device to be used in determining highway locations. By using discs on the device, the user can line up his odometer reading with a mile marker reading and for the remainder of the trip, the nearest mile marker reading can be determined by viewing the odometer reading and comparing that with the reading registered on the device's scale.

Mr. Reid, a senior staff engineer for Daytona Tire and Rubber Company for six years, recognized the need for such a device shortly after he purchased his own CB radio.

"I'm Sticking With CB!"

I have listened to the amateur radio people bad-mouth the CB'ers for years. Personally, I have always had great respect for the amateur radio service and aspired to get my ham ticket. Well, as of now, I will stay a CB'er.

One evening last February during a heavy rainstorm, I monitored several radio emergency frequencies, including the 2-meter ham band. I could not believe my ears. For three or more hours I heard the worst language, frequency jamming, fights over the air among members—all while they pretended to operate an emergency service. I also monitored CB channel 9 and found an orderly polite operation.

I always thought the FCC monitored the ham bands and kept them operating in a sane, professional manner. That is why I wanted to be a ham. Well, after listening to some of the garbage on some of the amateur frequencies, and especially the 2-meter band, they can have it. I will just stay an old CB'er. It will just be a matter of time before the CB takes over the ham frequencies, anyway. Twenty million CB'ers will soon carry more weight with the FCC than the 600,000 hams. Sorry fellows, you just lost one more candidate.

DON H. LARK
San Carlos, Calif.

Mich. REACTERS Aid Smokey

If you are on I-75 in the Saginaw/Bridgeport area of Michigan and need assistance, switch to channel 9 and call KMI-0911. That's the Michigan State Police post in Bridgeport and they are on the air, better than ever, thanks to members of the Saginaw REACT Team #3653.

On Saturday morning, February 2nd, team members arrived at the post headquarters and immediately started to install new 40 channel Midland radios and trunk mounted Antenna Specialist antennas into five patrol cars.

In the afternoon, REACT members got on the roof of the post and installed a new Starduster ground plane base antenna to improve their reception and transmitting qualities. For the finishing touch, team members moved indoors of the post headquarters and attached a Turner +3 desk microphone to their base radio, which will improve transmitting range and clarity plus the convenience for the radio operator.

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The FCC's

"NO-LICENSE HOBBY RADIO BAND"

by Tom Kneitel,
S9's Editor

Little Known 49MHz

Do You Know About This "No Holds Barred" (AM/FM/CW & Skip") 2-Way Hobby Radio Band?

Every once in a while we have made some brief mention of the 49 MHz "hobby band" and that never fails to generate a large carton of mail from readers asking for additional information and explanations. Fact of the matter is that it's a nifty but little known band that offers some interesting challenges to the QRP (low power) communications hobbyist who wants to have some fun without the need for any FCC license. Yes, it's really true! No FCC license and they say you're allowed to work *skip*, run 'fone, code, and just about anything else you want. There are a *few* restrictions relating to the power you run and the equipment in general, but nothing any red blooded communications hobbyist can't live with. All of this is by virtue of the FCC's Part 15 rules.

LET'S GO BACK

In the early days of CB the FCC's Part 15 had authorized this same type of operation within the confines of the 27 MHz band, any frequency was allowed for these communications.

Stations designed for low power output could be used on these frequencies, although until *S9* siezed upon the concept of hobby experimentation there, the equipment was mostly used by campers and kids. In our December '62 edition we suggested that Part 15 had definite hobby possibilities, listing them and, in fact, selecting 8 specific frequencies which we thought would have the highest appeal for would-be hobbyists. In the January '63 edition we announced a registration program to issue identification numbers to Part 15 hobbyists, inasmuch as the stations (not being licensed) had no FCC callsigns.

At the same time, International Crystal Mfg. Co. brought out their Model 1500 Part 15 hobbyist base station, operating with both AM and CW (100 milliwatts input) on all 8 Part 15 27 MHz unofficial hobby channels. The station cost about $300 and complied with all FCC specifications.

Within a few months *S9* had registered several thousand Part 15 enthusiasts, most of whom were using inexpensive hand-held "walkie talkies" and having lots of fun. Although the International "1500" was rather expensive for its time, and was made up only in limited quantities, enough of them were sold to permit their owners (I was one of them) to work some *legal* 27 MHz *skip*—CW was the best way of getting through.

International Crystal's 1960's approach to low-power hobby communications. Their Model 1500 was a complete 100 milliwatt 27 MHz AM/CW station. The transmitter was contained in a separate chassis and cabinet, which was roof mounted along with the self-contained antenna, in order to keep it "legal."

After a while stations had their own Part 15 QSL cards, and *S9* even ran a monthly column catering to the low power DX crowd.

Unfortunately International Crystal couldn't seem to sell a sufficient number of their Model 1500's at the price they needed to ask for the unit and they decided to discontinue the set. No other manufacturers had entered this field with a base station, although hand held units were plentiful. The Part 15 hobbyist interest started to wane after about 2 years because of these factors, however we did receive mail from hardcore Part 15'ers for several years afterwards.

Since that time lots of things have changed, including Part 15 itself! These days the FCC no longer permits this type of equipment on 27 MHz, although the same general type of operations are now permitted on 49 MHz.

PRESENT STATUS

While some operators originally reacted with horror at the loss of the 27 MHz frequencies, they were consoled by the fact that 27 MHz was replaced by new frequencies in the 49 MHz band. This band, adjacent to the 6 Meter Ham band (50 MHz) is spectacular for skip operations; 6 Meter Hams are deluged with *skip* openings and have found that even low power rigs can do a job on the band (except when needed to do battle with crowded frequencies).

Under existing Part 15 regulations you can use any commercially made equipment you can find be-

During its 1960's 27 MHz incarnation, Part 15 hobbying produced a bumper crop of contacts. Here are some QSL's from those days, all of which appeared in the monthly column which *S9* used to run for these operators.

ing made for the band, or you can even build your own. Most of the "no license" walkie-talkie type units being sold today operate under the "commercially made" provisions, ditto the Radio Shack 49 MHz base station (#60-4010).

All Part 15 49 MHz gear may operate on one or more of the following frequencies:

49.830 MHz (Frequency A)
49.845 MHz (Frequency B)
49.860 MHz (Frequency C)
49.875 MHz (Frequency D)
49.890 MHz (Frequency E)

The frequency "letter" designations are those which have been voluntarily "assigned" to the channels by hobbyists; the FCC does not recognize them. Frequency "C" appears to be the most popular frequency in use.

The RF power output, measured at a distance of 3 meters (just less than 10 feet) can't exceed 10,000 uV/M, and the transmitter should be completely self-contained with the antenna permanently attached to the case or cabinet. The microphone can (optionally) be attached externally but the mike cord can't exceed a tad less than 5 feet (1.5 meters). Any type of transmission is allowed, including AM, FM, SSB, CW, even teletype, radio control, computer coding, and telemetry. No limitations are placed on the working of *skip*, although all emissions must be within 20 kHz of "center slot," and all out-of-band emissions (such as harmonics) betwen 25 and 1000 MHz can't exceed 50 uV/M at 3 meters' distance (500 uV/M at 3 meters' distance within 10 kHz of center frequency).

If you're going to operate under the homemade equipment regulations (less than 5 units being produced, none of them being "marketed") you can meet the foregoing specifications and/or you can operate with a VFO or crystal control to give you the use of any frequency between 49.82 and 49.90 MHz. If you're going that route, you've got to keep the RF carrier and modulation products within the band. You can also forget about the complicated signal radiation measurements if you wish and, alternately, can meet FCC standards by not letting the power input (measured at the battery or power line terminals) exceed 100 milliwatts (under "any condition of modulation"); also the antenna must be a single element not longer than 1 meter (39.37 inches) and mounted on the case or cabinet. Har-

monics must be suppressed at least 20 db below the level of the carrier.

If you build your own transmitter under Part 15 regulations the FCC says you have to attach a label to it which reads:

"I have constructed this device for my own use. I have tested it and certify that it complies with the applicable regulations of FCC Rules Part 15. A copy of my measurements is in my possession and is available for inspection.

(Signature) **(Date)**

SOME OPERATING THOUGHTS

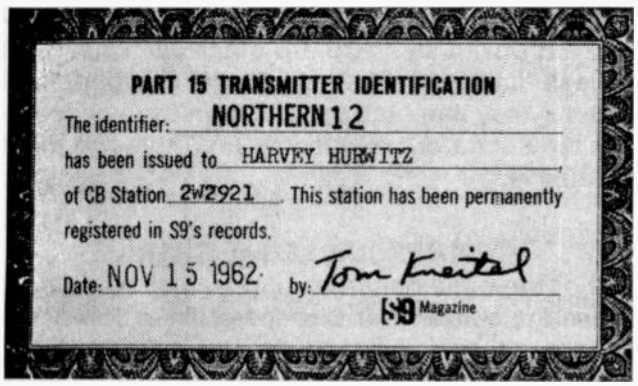
You can use any identification which suits you so long as it doesn't conflict with or duplicate the assigned callsign of a licensed station. I have been operating of late and utilizing my registered monitoring station identification (KNY2AB) since it doesn't duplicate any FCC callsign and yet it's easily readable; several other operators have also been noted using this same type of ID.

I've found that flat-side antenna polarization does offer less interference plus some directional capabilities. Locating the transmitter as high as possible is of considerable help in stretching the coverage for local operations, but when the *skip* is in it doesn't make much difference. If using a commercially made unit, the set can easily be tilted over on its side for horizontal polarization. Homebrew gear can be designed with flatside antennas.

If you want best all around coverage, better stay with a vertically polarized antenna (a "stick"). In this connection, the FCC doesn't license or in any way regulate scanners so if you should want to use a scanner as your receiver (connected to a high gain receiving antenna) to substantially increase your system efficiency, then it doesn not seem to me that you are in violation of any FCC rules; just don't use that same antenna for transmitting. I've had pretty good luck receiving on a low-band omnidirectional scanner antenna. When operating I leave my scanner monitoring 49.86 MHz; most of my contacts have been in CW, a few in 'phone.

There are several operators using 6 meter ham band beams for receiving 49 MHz band communications; they say that they offer fantastic results—can be mounted in either a vertical or horizontal polarized mode. A beam offering gain (signal multiplication) and/or a receive preselecter (Ameco make one which covers all the way up to 54 MHz) is ideal. Check electronics suppliers who sell ham gear. This should really pull in the incoming mail—even signals "down in the mud."

Although VFO (variable frequency) operation is permitted with some gear, my suggestion is to stay crystal controlled at this point in the development of this band; it's easier to make a contact if everybody now using the band sticks close to one predominant frequency. Right now it's 49.86 MHz, hopefully the band will become popular enough to cause me to suggest otherwise at some point in the future. *(continued)*


PART 15 TRANSMITTER IDENTIFICATION

The identifier: NORTHERN 12

has been issued to HARVEY HURWITZ

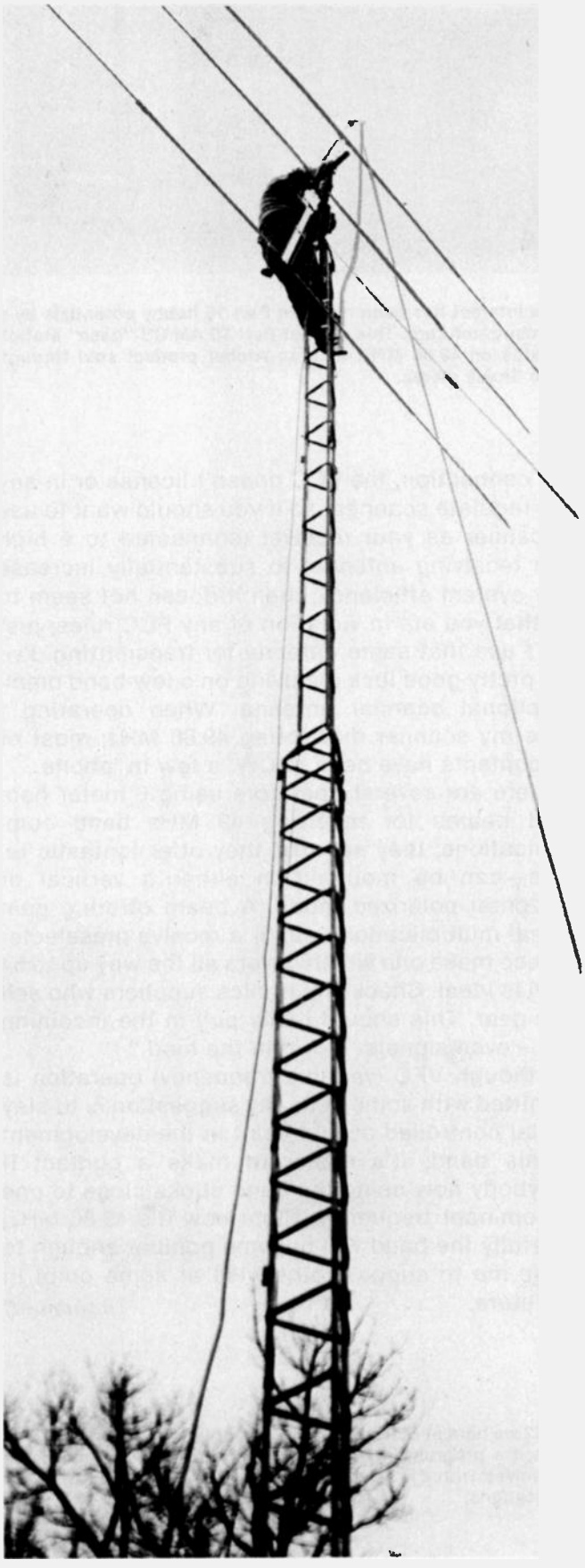
of CB Station 2W2921. This station has been permanently registered in S9's records.

Date: NOV 15 1962 by: Tom Kneitel

S9 Magazine

Some interest has been noted in Part 15 hobby potentials by a few manufacturers. This current Part 15 AM/CB "base" station operates on 49.86 MHz. It is an Archer product sold through Radio Shack stores.

In 1962 we here at S9 were helping to get Part 15 organized. This involved a program in which thousands of Part 15 fans listed themselves with us, a project which far exceeded our greatest expectations.



A beam antenna? A tower? Sure! But you can't use it for transmitting on Part 15, only for receiving those DX stations.

There are *skip* contacts to be had, there are also QSL's to be had. Likewise here's a chance to work some *skip* without having to get *Uncle Charlie* in a snit, without having to study for any kind of a license. It's also a chance to get some practice in with CW, and CW offers far greater range than voice. A word of advice is that persons seeking to really get into 49 MHz might want to use a communications receiver and a converter for receiving 49 MHz CW signals since a communications receiver has a BFO to make CW easily readable, while trying to copy CW on a scanner is a bit tacky, as is trying to copy AM signals with good readability.

BOOTLEGGING

A few words on bootlegging might be noted at this point because—*surprise, surprise*—if a radio service can be devised there will almost immediately be those who will not only figure out a way to bend it and manipulate for their own advantage but will go so far as to ignore the rules by putting their ideas into action. While there (at this point) has been little interest noted in operating "out of the band" (since so far most operations are on 49.86 MHz and that's where the stations are everybody wants to talk to), there are stations which are transmitting on beams and other antennas which, while legal for receiving, are not permitted for transmitting.

I've also met operators who have been running a hair more than their authorized output, either by means of modified 6 meter Ham gear or with military surplus stuff. One op, who is running an RT-68/GRC transceiver (a military surplus job which appears to be in plentiful supply on the current surplus market for about $70; it runs 16 watts FM between 38 and 55 MHz) wrote to say that he originally intended to modify the unit for the authorized low power but just never managed to get around to doing it.

My own feelings are that the low power and restricted transmitting antenna are a real challenge and the feeling of accomplishment you get when you make your contacts makes "staying legal" part of the run on 49.86 MHz. That's my opinion, but obviously there are other operators who find less fun in the challenge than in the number of contacts they can rack up, and aren't too concerned if they bend or break some FCC rules to meet their needs.

COMMERCIAL LEGAL GEAR

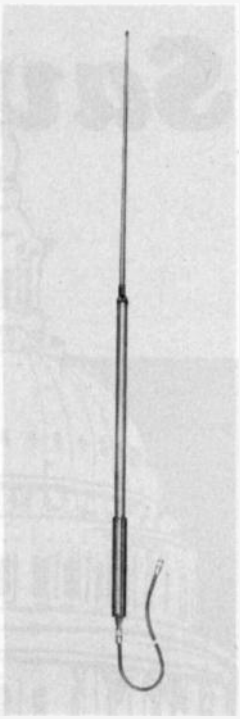
All of the hand-held transceivers not requiring a license are suitable for this operation. A few hand-held rigs offer voice and CB facilities (Radio Shack #60-4003), as does the Radio Shack 60-4010 base station. Undoubtedly several manufacturers offer hand-held and "base" stations offering CB opera-

tion, so check around at electronics suppliers. This equipment is all relatively inexpensive and offers a great potential for experimentation. Certainly you can buy a 49 MHz hand-held unit, then customize it for your own needs—the transmitter section is all nicely pre-built and saves you the trouble of starting from scratch. Or, maybe you can locate a QRP 6 Meter Ham rig schematic which you can build and fire-up on 49 MHz. Another good idea is to obtain a copy of the FCC Rules & Regulations, Part 15, since that gives the official word on all the specifications which face you on the band.

In the meantime maybe you'll want to start speaking to other operators in your area to see if they are interested in getting some activity going in your area on this band (if you've got a scanner, run it on 45.86 MHz and you've already got your foot in the door there!); also, if you haven't yet got an identifier for your 49 MHz station you might start thinking about getting one! When you're monitoring the frequency, if you hear a station identifying as KNY2AB popping through the static—that's me, and I QSL!

And when you get it all together, send along some info on your station (maybe a photo and/or your QSL) and I'll run it in *S9!*

Here's an easy way to operate on the 6 Meter band—the no-license one!



While FCC regulations are quite explicit in attempting to limit the range of transmitters by means of establishing power limitations and transmitting antenna dimensions, there does not seem to be anything in the rules which says that separate receiving equipment cannot be used to listen to 49.86 MHz. Operators have therefore come up with innovative receiving installations in order to pull in the weak signals. This new Antenna Specialists #ASP-70 antenna might be used as part of such a receiving installation, it is factory cut for maximum performance on any frequency specified between 30 and 50 MHz.

A hand-held AM/CW unit operating on 49.86 MHz is also produced by Radio Shack's Archer company.

Incoming signals can be helped along and boosted with a preamplifier or preselector. This Ameco PT-2 offers up to 26 DB gain on all received signals between 1.8 and 54 MHz, operates from its own internal power supply. It's made by Ameco Equipment Co., 275 Hillside Ave., Williston Park, N.Y. 11596.

Government Regulations Will Save Lives!

At What Cost?

by Richard A. Cowan, Publisher of S9

For the past two years the Consumer Products Safety Commission has been studying the fatal accidents involving CB'ers and others electrocuted from antenna-power line contacts. This study has been funded by Congress at a cost to the taxpayers of some $500,000. Now the CPSC, in its ultimate wisdom, is attempting to foist a series of new safety regulations on the antenna manufacturers to prevent future accidents.

When you see the numbers, you'll probably want to laugh. No, people being killed by electricity isn't funny. But the numbers, in relation to the total population, are so miniscule as to make the entire project ludicrous. Here's a chart of the accidents, as reported by CPSC, for the past five years:

YEAR	TOTAL DEATHS	TOTAL CB ANTENNAS	TOTAL TV ANTENNAS
1975	220	No Breakdown Available	
1976	275	205	70
1977	220	145	75
1978	105	65	40
1979 (est.)	95	55	40

Okay, what do we have here? We have a total of 690 deaths by electrocution for the five year period among CB antenna installers. This is a minute percentage of the more than 15 million CB'ers in the country. It adds up to about 45 one hundredths of

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one percent. Hardly a statistic worth getting excited about. Especially so, when you learn that many, if not most, of the deaths were caused by outright negligence on the part of the people installing the antennas. There are cases documented where the victim tried to install the antenna late at night, without any adequate lighting. It's no wonder his antenna hit the power line. There are cases cited where the installer worked on a wet roof with no shoes on. He was a sitting duck just waiting to get killed. In fact, if all the facts truly are made public, I think we'll find that the people killed were extremely careless in their installation methods. If they hadn't been killed by touching their antennas to the power lines, they probably would have found some other way to commit "accidental" suicide. And who's going to pay for this carelessness? You and I—all of us who will every buy a CB antenna in the future. How come? Because the CPSC is going to require antenna manufacturers to add so much insulation to antennas that the prices are going to soar.

"...The victim tried to install the antenna late at night, without any adequate lighting. It's no wonder his antenna hit the power line."

Under a soon-to-be-released rule from CPSC, the manufacturers will be required to insulate every omnidirectional antenna so that it will withstand at least 13,000 volts of electricity for a specified time period. The cost of this new insulation will, according to reliable estimates from several of the leading manufacturers, add about $12 to the cost of each antenna at best, and more likely the increase will be in the range of $25-28. That's a rather enormous increase in dollars alone, but percentagewise it means an increase of between 50 and 125%. Why? Because a few hundred irresponsible people killed themselves by hitting power lines with antennas over a 5 year period. As I said earlier, it's almost funny. However, it's more tragic than funny because you CB'ers out there will have to bear the brunt of this governmental bureaucracy.

And there's something else that CPSC seems to be overlooking. After these new, highly insulated antennas have been up a year or two, they'll lose much of their insulation properties from dust or salt air acting on their insulated coatings. This is what the manufacturers have told us. So when it's time to move such an antenna or to replace it, it still won't offer the protection that CPSC intended it to have in the first place.

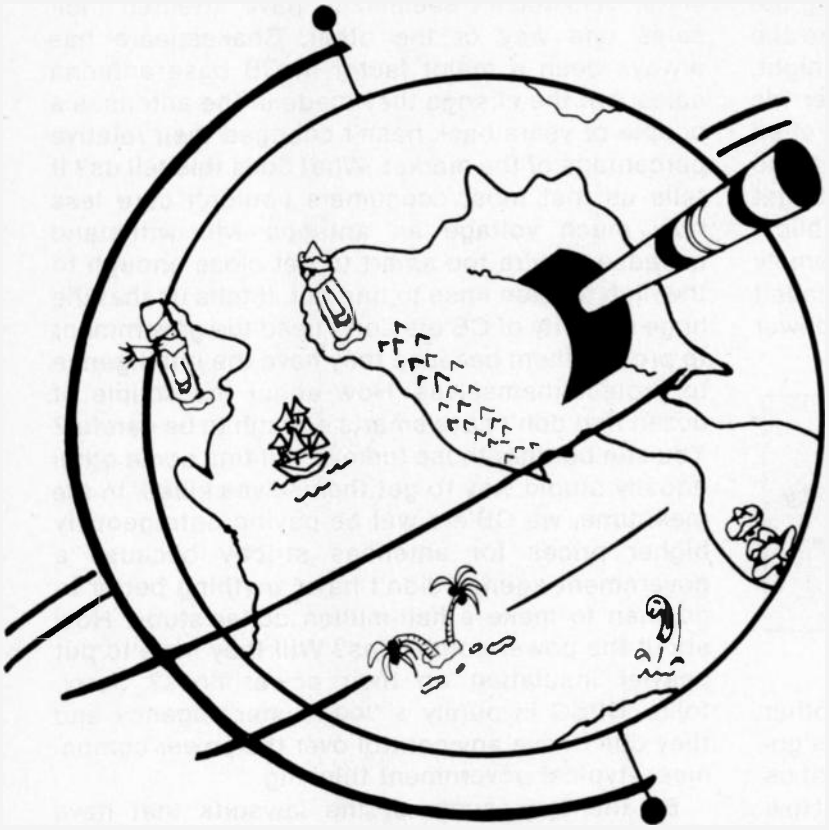
At the present time only one manufacturer, Shakespeare, has been producing fiberglass antennas insulated to withstand the 13,000 suggested volts. This hasn't seemed to have affected their sales one way or the other. Shakespeare has always been a major factor in CB base antenna sales, but the change they made in the antennas a couple of years back hasn't changed their relative percentage of the market. What does this tell us? It tells us that most consumers couldn't care less how much voltage an antenna will withstand because they're too smart to get close enough to the high tension lines to find out. It tells us that the huge majority of CB'ers don't need the government to protect them because they have the intelligence to protect themselves. How about the couple of dozen that don't have smarts enough to be careful? You can bet that those turkeys will find some other equally stupid way to get themselves killed. In the meantime, we CB'ers will be paying outrageously higher prices for antennas strictly because a government agency didn't have anything better to do than to make a half-million dollar study. How about the power companies? Will they have to put heavier insulation on their power lines? Sorry, folks. CPSC is purely a "consumer" agency and they don't have any control over the power companies—typical government thinking.

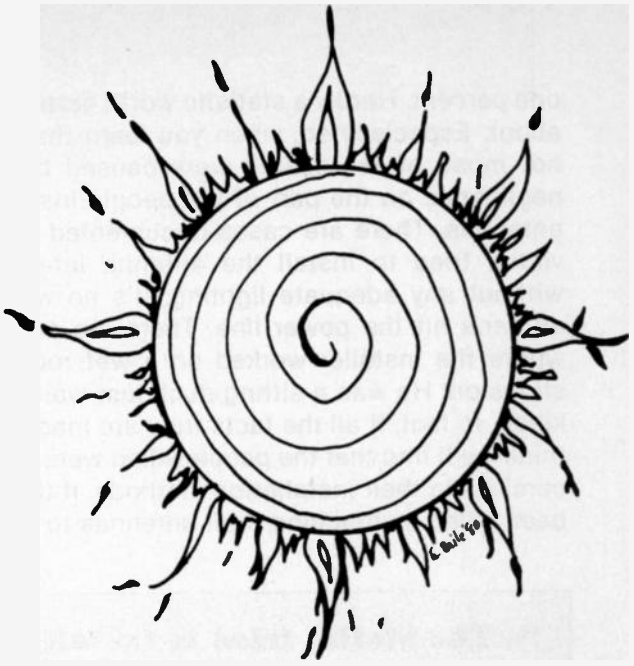
By the way, some of the lawsuits that have evolved from the injuries and deaths caused by antenna/electrocution are rather astounding. Despite the fact that the accidents were caused by gross negligence on the part of the antenna installer in just about every case, the injured parties or the heirs of the deceased have been suing everyone under the sun they might think of. Not only the power companies are involved—and they certainly appear to be more at fault for exposing high voltage lines within reach of a roof—but the antenna manufacturers, the distributors, and even the retailers who sell the antennas. Even if they can prove no culpability in the incidents, these people are forced to spend a great deal of money defending the lawsuits. This doesn't speak well of our legal system either.

What can we do to prevent this ridiculous situation? I'm not certain that we can do anything, but we can sure try. First off, a letter to Consumer Products Safety Commission, 5401 West Bard Avenue, Bethesda, MD 20207 would sure help. Let those agency people who are paid with your tax dollars know how you feel about the matter. Next, write your representatives and senators. Tell them that you want them to get CPSC to back off. Tell them the facts as we've given them to you. The facts don't lie. And they sure don't indicate a need for more government regulation at our expense. Write today, while you're still as ticked off as we are.

. . . Use S9 READER SERVICE

SECRETS OF





WORLD WIDE SKIP

The How And Why Of It; Using It To Its Fullest During This Year's 11 Year Peak!

By "Chino Charlie"

One listen on the CB channels or the ham bands over the past year should be enough to convince anyone that the long-awaited Cycle number 21 has arrived and that those sun spots are doing their thing. The effect of the increased sun spot activity has been most evident on the higher frequencies, where long distance skip is just about an everyday occurence.

For thousands of new skip shooters this will be the first of the familiar 11 year cycles. And this current cycle is expected to peak in this coming winter. Then it will slowly decline for some four years before it begins to bottom out. Yes, we are expecting at least another four big years of a level of sun spot activity that should support fairly consistent long distance communication.

This article is not primarily about sun spot activity, however. Rather, it is about one of the ways to use this cycle if you do like to chase DX.

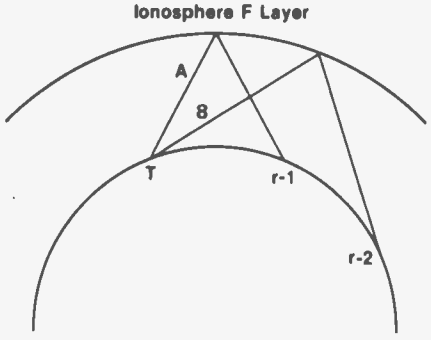
"Skip" was first observed and proved by two physicists, Kennelly of the U.S. and Heaviside of Great Britain. They realized that Marconi's successful transmission of radio signals across the Atlantic could not have taken place on a direct path, but must have been reflected back to Earth. Even today not everything is yet known about how many factors might affect the transmission and reception of radio signals.

The term skip came into being when it was first recognized that some radio signals were literally skipping over the space between the point of origin and the point of reception. This phenomenon was the result, of course, of the fact that the signal was not following the curvature of the Earth, but was traveling in a relatively straight line up to one of the layers above the Earth and then bouncing back down. A receiving statio over the horizon and out of range of the transmitting station's ground wave would not even hear the signal. But another station hundreds or thousands of miles away—where the signal came back down to Earth—would receive it loud and clear. The area in between, in which signals were not heard, became .known as the skip zone to designate that signals were skipping over it.

There are a couple of things that should be mentioned because they have a direct bearing on the effective use of the right radio path. Looking at figure 1 you'll see that the lower the angle of radiation, the greater the distance from the point of origin the signal will be when it returns to Earth.

The geometric law that the angle of reflection equals the angle of incidence is not absolutely true. Apparently some bending of the radio wave occurs, rather than a point-to-point reflection. But for most purposes we can assume that the radio wave will be reflected or refracted back to Earth at nearly the same angle as it arrived.

At first it was thought that there was only one layer up there that was doing the bouncing back to Earth. For many years it was known as the Kennelly-Heaviside layer in recognition of its discoverers. After a time it became apparent from various radio soundings that there were several layers up there and they varied in their effective height above the Earth.



Showing that high angle signal at A will travel less the distance than the low angle signal at B.

Figure 2 shows the layers concerned with long distance propagation. The E layer is about 70 miles above the Earth. The F layer is actually two layers, the F-1 layer at about 140 miles and the F-2 layer at around 200 miles. At night the two F layers recombine into a single layer about 175 miles high. Not shown is a D layer, which exists only around the noon hour and affects only frequencies below 5 MHz.

It is important to realize that these layers are not some solid permanent wall up ther that bounces signals back like ping-pong balls. Rather they vary in thickness and height and in their ability to reflect radio waves. That is, they are constantly changing in composition.

Perhaps the most important factor for us to consider is the degree of ionization that determines if the layer will absorb most of the radio energy, reflect most of it back, or allow it to pass right on through to outer space.

There are many factors that affect long distance radio propagation. Not all of them are yet understood. We have evidence that the Earth's magnetic flux has a decided effect. We are also aware of affects from solar storms, from the aurora borealis, and so forth. However, in this article we are going to concern ourselves only with reflections from the ionospheric layers.

The Effects of Cosmic Rays

What causes these layer to bounce radio signals back to Earth? Apparently it is the ionization level. Ionization takes place when the atoms that comprise the thin atmosphere up there are bombarded by ultra violet rays from the sun. Other particle bombardment from cosmic rays may also be present. The impact of the rays temporarily separates the ions and electrons that are normally in a state of electrical balance.

Where the atmosphere is relatively dense and the atoms close together, the recombination of electrons and ions into a balanced state takes place fairly rapidly. There must be a constant bombardment to keep enough ions split off to maintain a state of ionization in the layer.

Since the source of the bombardment that ionizes a particular layer is the sun, it becomes obvious that if the rays from the sun are not hitting a layer it will no longer have ions splitting off. All will recombine and the ionization will disappear. No ionization—no radio reflection, and no skip.

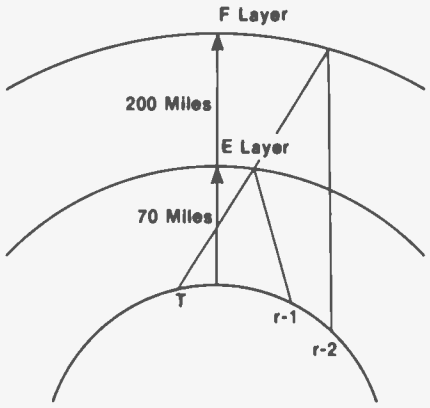
At the higher altitudes, where the atmosphere is less dense, the recombination takes place more slowly. The layer may retain enough ionization to reflect radio signals long after it has ceased to be
hit by radiations from the sun. This is true of the nighttime F layer, if it was thoroughly ionized while in sunlight.

The degree of ionization obviously is the controlling factor of how well those layers will provide long distance skip propagation. In turn, that depends on the sun's level of activity in generating solar energy in the form of ultraviolet radiations. This appears to be directly related to the so-called sun spot activity. The spots are actually parts on the sun's surface that are cooler than the surrounding areas. They are the source of tremendous amounts of energy that pour in a stream of hydrogen and calcium gases in a vortex like a cyclone between the two poles of an apparent magnetic loop.

Sunspots

In one 11 year cycle they will be below the sun's equator, while in the next cycle they will be above the equator. In either cycle the effect is stronger as the spots move closer to the sun's equatorial line. We won't go further into this subject except to state that the level of ionization seems to be directly dependent on the number of sun spots.

The cycles actually overlap each other. The Current cycle was first "felt" several years ago, but will reach a peak later this year! We have, in very general terms, extablished that layers do exist



Showing radio wave reflection off of both E and F layers. Distance at r – 2 will be twice that at r – 1.

above the Earth and that they will reflect radio signals, depending on the degree of ionization. We can now direct our attention to the more specific aspects of getting our radio signals from here to there.

We mentioned that both absorption and reflection take place when a radio wave enters an ionized layer. Some of the energy used to excite the ions will be expended in this job, but some will be bounced back.

The phenomenon of reflection is very dependent not only on the degree of ionization, but also on the frequency of the radio wave. And that later is a variable because the frequency that will be bounced back is constantly changing in direct relation to ionization. Less ionization is required to reflect the lower frequencies than the higher frequencies.

At any one time, for a particular zone of the layer, there will be a *maximum useable frequency or muf.* This represents the highest frequency that will be reflected back to Earth from a specific area of the layer.

The layer is not a homogeneous mass surrounding our Earth, with uniform thickness and density. Rather it is constantly expanding and contracting, moving up and down, and variable in the amount of ionization. *(continued)*

For any particular path between two points on our Earth the layer will be in a given state. It will reflect signals up to some maximum frequency. Beyond that the signals will not be reflected, but will penetrate the layer completely.

Changing *muf*

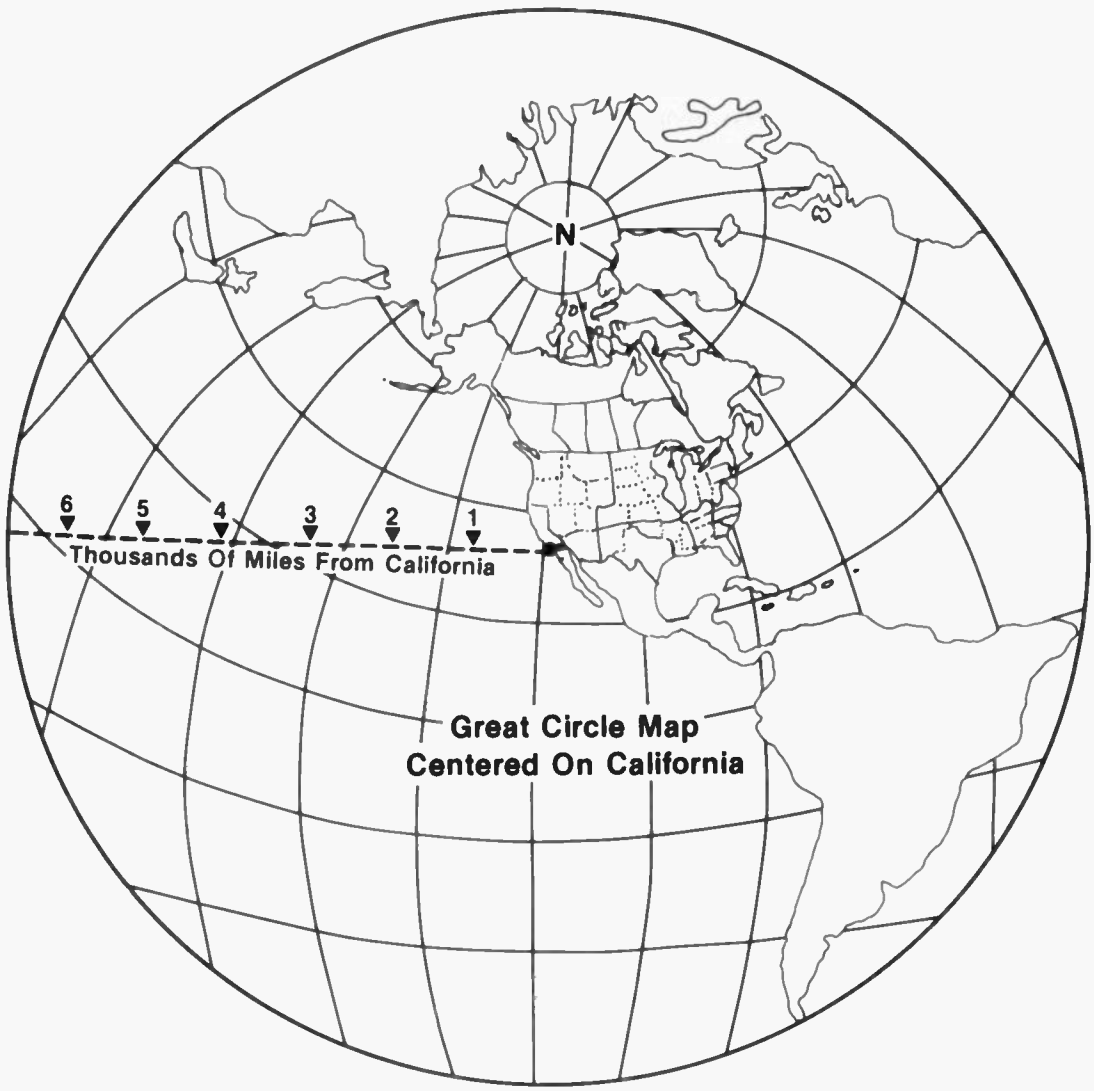
From the foregoing you can see that the *muf* is not constant each hour, but must be calculated over a specific radio path, taking into account the degree of ionization that will exist over that path. In general you can get a pretty good idea of possible radio paths if you can visualize the illumination of the Earth as if you were looking at it from outer space. The TV pictures that our astronauts sent back of the terminator line—the edge of darkness and light—from the moon were spectacular proof that half the Earth is in relative darkness half of the time. There is a wide variation depending on time of year and latitude, but while the rays of the sun are hitting, the layers will be ionized to some degree.

Your radio signals will travel over the path that offers the best reflecting surface back to Earth. If you are not using a beam antenna, you pretty much have to take what comes. You will notice that the radio path seems to generally move with the sun. As signals fade from the east they pick up strength from the west. This is directly attributable to the decreasing ionization as the F layer thins out and splits into two separate layers.

Generally the first frequencies to lose the reflection necessary for communication are the higher ones, since they require more ionization. First you'll lose contacts on CB and 10 meters. Then, later, 15 will drop out. In winter time, 20 will then drop out and you'll be left with skip propagation only on 40 meter or lower bands.

In summer, during the peak period of the sun spot cycle, 20 meters will be open to some spot on the Earth on a 24 hour basis. 15 meters will frequently be open until almost midnight to the west and even CB and 10 may last well into the evening.

Now, before millions of CB'ers tell



One side of my great circle pointer. The bearing of 197° would put me in Israel on "long path".

me about having skip contacts late at night, let me hasten to add that I am talking about radio paths using the F layers. The E layer, which provides one bounce contacts over a 1250 mile maximum path, is also subject to occasional retentions of a high degree of ionization particularly in the spring and fall months.

This is known as sporadic E skip and it accounts for those very loud signals heard on the higher frequencies over relatively short ranges. Usually the sporadic E skip is fairly local in nature, since the ionization takes place in only particular areas of the layer. You may hear loud signals out of the northwest, but nothing from other areas of the country.

For this discussion we are relating only to the skip from the F layer(s) and preferably obtained with the use of a directive antenna—a rotary beam. In order to make use of the optimum radio path our location and that of the station we are trying to contact we must know something of both the probable area of best ionization and the correct heading in which to point our beam.

Unlearn Old ideas

Well, you say, point the beam right at the station you want. Right. But, what is 'right at?' If you are used to looking at the typical mercator projection map you are going to have to unlearn your idea of directions when it comes to pointing your beam antenna.

From grammar school onwards we are shown maps which seem to indicate that certain areas of the world lie in well-defined directions from our country. You want to talk to Rome from Chicago? Heck, you're almost on the same latitude. You can just about draw a straight line going east and connect the two cities. So you point your beam due east at 90 degrees, right? Wrong!

Radio signals generally prefer to take the shortest path between two points. Sure, that's a straight line. But it's using the "great circle" path—the same path international airplane flights take if they want to go non-stop the fastest way. You can get a good idea of this path if you pin a string on a globe of the world at your location and then move it around to find the shortest length that will get you to another location.

If you don't have a globe use an orange and visualize where the countries are. Now you will find that your heading for Rome from Chicago should be northeast, not east as you expected.

With a little practice you will quickly start to think in these new dimensions. You will realize that aiming over the polar regions is frequently the shortest path. A great circle chart of the world will aid in finding the right direction. But, you should be aware that it must be centered near your location to be correct, as far as antenna headings are concerned.

Even a shot from Los Angeles to New York City would by east-northeast about 60 degrees—in spite of the fact that we tend to think of the *Big Apple* as being directly east—90 degrees. You should learn to visualize the path your signal will take, where it will hit the layer, where it will come down and bounce up again. Yes, I said bounce up again.

Even with a low angle of radiation and a bounce off of the F layer the longest single hop distance is around 2500 miles. The distance from San Francisco to Rome is 6228 miles on the great circle path—the shortest route. Obviously it can't be made on one hop. Most likely it will take three or four hops, depending on the best path and the angle of radiation.

This isn't done for free, however. It is estimated that each hop takes about 10 dB off of the signals. That means that only one tenth of the power gets back on up for the next hop.

You can figure what a multi-hop path will cost in the way of lost signal strength. Even with that, I've heard signals from half way around the world pounding in at 30 dB over S-9. Don't lose hope of being heard just because you have to bounce your signal.

Practical Approach

Let's practice with a few radio paths to demonstrate how we can get from here to there and be heard with a strong signal. Our station is near Los Angeles. On a mercator projection map we can immediately see that it puts us at about 34 degrees latitude and 118 degrees longitude.

I have a Quad beam antenna to squirt my signal in a particular direction. The first thing I did was to calibrate the antenna so that my indicator would show, in degrees, exactly what direction it was pointing. To do this accurately I had to know the deviation between magnetic north and true north, since all bearings are based on true north. For my location the variance is 17 degrees, so I allowed for that correction before bolting the boom-to-mast coupler into position.

Another thing that helps me to work DX is a good 24 hour clock set for GMT, now know as Coordinated Universal Time, or UTC. Not only do I always keep my log book in UTC to avoid time and date problems when QSL'ing DX stations, but also I know the local time for most parts of the world.

That's important in calculating how much of the "path" between my station and other parts of the world is, or has recently been, in sunshine.

What about a bearing to swing the quad antenna to? I have a handy little device that is a cardboard great circle map centered here in California. It has a plastic pointer that rotates from the middle. I move it to point to the location I want to reach. If, for example, I wanted to communicate with a German station, I'd set the pointer to Germany, and find that the bearing was 30 degrees. That means that my signal would bounce down somewhere in Hudson Bay, in Canada, and take off again over Greenland and come down in the snow, and go up again. The distance is about 5600 miles, great circle, so the third bounce would land me in Germany.

There are two likely times during each 24-hour period that give me the best chance of hearing signals from Europe on 20 meters. One is early morning when it is late afternoon there. The other is when it is late evening here and morning there. Frequencies as high as 15, 10 meters, and CB are likely to be 'open' between California and Europe at those times.

As you might have suspected the East Coast has an advantage when working skip into Europe compared to the West Coast. They don't have to pay the 10 dB penalty of an extra bounce. Those of us on the West Coast have the same type of advantage when working Japan or Australia. Most of the country has complained of the West Coast's aluminu curtain when they want to reach out into the Pacific. It's often hard to get

through all of those high powered California stations.

The Long Way Around

There are times when the best route between two locations is the so-called long path. It's called that because radio signals are bouncing the long way around the Earth. Again, it depends on the state of ionization existing between the stations. Frequently the longer path is actually the stronger path.

When I hear a peculiar echo effect on a DX signal I know that it is likely that I am hearing their signal from both directions at almost the same time. That's when I spin my antenna to a heading opposite the one normally used.

Some years back I had breakfast each morning while talking on 20 meter sideband with a chap in Pretoria, South Africa mobiling on his way home from work. It was a long path contact with signals bouncing around the world via the Pacific over Wake Island, across New Guinea, across the Indian Ocean into South Africa. Although 7:30 am in my shack, it was 5:30 pm in Pretoria. Right after a short chat with him as he drove home, I would keep schedule with another station in Hong Kong. Of course the operator was in a different day, for he is on the other side of the international dateline. The shot to Hong Kong was, of course, a short path link. Both the Pretoria and Hong Kong signals were usually over an S-9 on my receiver!

A few months of practicing and you will know most of the bearings automatically, and the approximate local time at the DX location. Knowing that the path depends on those ionized layers allows you to calculate your chances of making contact at a particular hour to some specific place in the world.

Unfortunately, for those hard working types who have a daily job, much of the good DX takes place in the morning hours, so retirees, swing shift people and housewives have a big advantage.

Radio propagation is one of very complex topic, so you should know that we have barely scratched the surface in this article. However, you ought to have a handle on which way to point your beam antenna if you want to chase DX or shoot skip. Good luck and good DX.

THE SKIP FORECASTER

BY STEVE, SSB-2A74

PROPAGATION FOR OCTOBER

The propagation for October looks *very* good. The 11 meter band again this month and this year will bring excellent *world-wide* propagation! You will be able to hear all continents: Africa, Antarctica, Asia, Australia, Europe, North America and South America. The best part is you'll hear 'em even if they're using low power and simple antennas.

How can this be possible, you ask? It seems hard to believe. Well, it is all because of the F2 layer, long haul skip. Eleven meter F2 layer DX is the best at midday. The band conditions depend on the sun's position over a certain signal path. The F layer skip distance is from 1300 to 2500 miles. But we must not think it is the maximum distance, because it hops or skips many times further. The F layer is good for 10,000 miles (world-wide). Some of the power is absorbed as the radio wave penetrates the lower D and E layers.

The sun controls F layer skip at 11 meters, but if there is a solar or ionospheric storm, no radio signals will be heard for a few days because of solar flares, disturbances and radio blackouts.

Eleven meters (27 MHz) is a high frequency shortwave band. The F layer on 11 meters is between 50 and 250 miles—ionosphere.

The sunspot cycle is every 11 years. The present cycle (#21) is now the *second* strongest cycle in recorded history! The cycle should continue strong through the remainder of 1980.

ZONES AND TIME FOR PROPAGATION

Eastern USA

Zone	Time	Zone	Time
Europe	8:00 a.m.	Antarctica	8:00 p.m.
Asia	10:00 a.m.	New Zealand	8:00 p.m.
South Africa	11:00 a.m.	Oceania	8:00 p.m.
Caribbean	12:00 Midday	Australia	8:00 p.m.
South America	12:00 Midday	Japan	8:00 p.m.

Mid USA

Zone	Time	Zone	Time
Europe	10:00 a.m.	Antarctica	9:00 p.m.
Asia	12:00 Midday	New Zealand	9:00 p.m.
South Africa	1:00 p.m.	Oceania	9:00 p.m.
Caribbean	2:00 p.m.	Australia	9:00 p.m.
South America	2:00 p.m.	Japan	9:00 p.m.

Western USA

Zone	Time	Zone	Time
Europe	10:00 a.m.	Antarctica	8:00 p.m.
Asia	11:00 a.m.	New Zealand	8:00 p.m.
South Africa	12:00 Midday	Oceania	8:00 p.m.
Caribbean	2:00 p.m.	Australia	8:00 p.m.
South America	2:00 p.m.	Japan	9:00 p.m.

SAVE NOW DURING AVANTI'S GREAT FACTORY REBATE OFFER!

Incredible savings on the best CB beam antennas money can buy are yours today. Take advantage of Avanti's great factory rebate offer now in progress.

Save $40 on the ultimate beam – Moonraker 6. And that's in addition to the giant price roll back we're having on this famous antenna! You'll also receive $10 back on Astrobeam and Moonrotor, or a $24.95 valued switchbox absolutely free with your next purchase of Avanti's PDL II or Moonraker 4.

To qualify, all you need do is buy the Avanti beam or rotor of your choice at your favorite CB specialty store. Then send in the appropriate coupon and warranty card, along with proof of purchase to Avanti Antennas. Within 3 weeks, we'll send you the rebate and/or free switchbox. But act today – this offer expires January 15, 1981.

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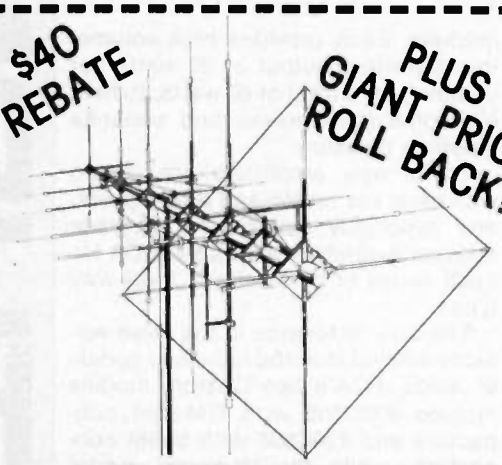
$40 REBATE

PLUS GIANT PRICE ROLL BACK!



Moonraker 6 AV-146 – The ultimate beam you've always dreamed about owning can be yours today! 50X more power. 6 dual elements with a PDL reflector. 31.5-ft. boom. Four position switchbox included.

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Offer expires 1/15/81. Limited: One Coupon Per Antenna Purchased. S-9

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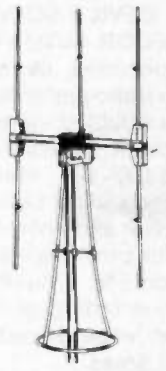
$10 REBATE!



Astro Beam AV-150 – The antenna that has at least 1 dB more gain than the best competitors' 3 element beam on the market today.

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$10 REBATE!

Moonrotor AVR-1 – Exclusive solid state electronics – new standards of accuracy and reliability in antenna rotation. 360° direct drive location sensor linked to integrated circuitry for the highest degree of positioning accuracy!

This coupon is redeemable only with the purchase of an Avanti Moonrotor. Any other use constitutes fraud. Sales tax not included. Coupon void if taxed, prohibited, or legally restricted, and void outside the United States. To obtain your $10 rebate, mail this coupon, along with the Moonrotor warranty card and proof of purchase to Avanti Rebate Offer, 340 Stewart Ave., Addison, IL 60101.

Offer expires 1/15/81.
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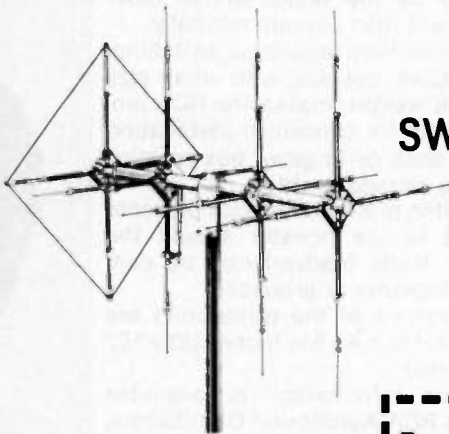


Moonraker 4 AV-140 – Unleashes co-inductive power like no other antenna. Famous for rejection of unwanted noise and interference. Super strong construction. Strong, long distance performance with dual polarity.

This coupon is redeemable only with the purchase of an Avanti Moonraker 4. Any other use constitutes fraud. Sales tax not included. Coupon void if taxed, prohibited, or legally restricted, and void outside the United States. To obtain your free switchbox, mail this coupon, along with the Moonraker 4 warranty card and proof of purchase to Avanti Rebate Offer, 340 Stewart Ave., Addison, IL 60101.

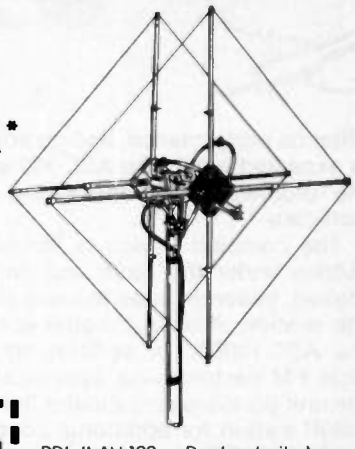
Offer expires 1/15/81.
Limited: One Coupon Per Antenna Purchased. S-9

OFFICIAL COUPON

FREE SWITCHBOX* worth $24.95!

S-9

* The Avanti Model AV-502 includes four position switches between horizontal, vertical and standby antennas. Eliminates arcing and burnout that can occur in other switchboxes.



PDL II AV-122 – Dual polarity beam with orbital gamma match for increased gain and rejection and improved band width. Patented co-inductive power. Actually contains 10 elements – 5 on each polarity.

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Limited: One Coupon Per Antenna Purchased.

OFFICIAL COUPON

If your dealer is out of stock, have him call us and we'll rush your order out to him immediately!

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CIRCLE 25 ON READER SERVICE CARD

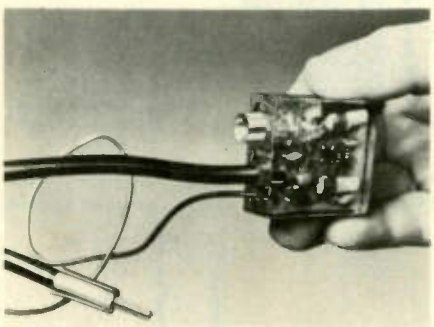
AUTOSOUNDING

Another Dimension of Sound for CB Mobiles by "Shutterbug"

DEVICE SOLVED PROBLEM OF POOR AUTO FM PERFORMANCE

Consumer demand for better FM auto radio performance is responsible for a doubled increase in sales of The Antenna Specialists Co.'s model ASC-100 FM stereo Ex-pander. Installed in-line between the broadcast receiver and antenna, the miniaturized device provides a signal boost up to 15 dB on FM, virtually eliminating weak station fading or "picket fencing" so often experienced in suburban and rural areas.

The auto manufacturers have yet to solve the problem of inadequate FM



antenna performance, and no solution is expected soon. The ASC-100 solves the problem by compensating electronically.

The compact device is completely hidden under the dash and once installed, becomes a permanent part of the system. A deluxe model is called the ASC-100DX. In addition to identical FM performance specifications, the unit provides an indicator light and on/off switch for additional control in very dense FM station locations such as downtown major metropolitan areas. The DX model, only 3½ x 2¼ x 1¼ inches, may be under-dash mounted. Additional information may be obtained locally from Antenna Specialists Co. representatives and distributors or write to: The Antenna Specialists Co., 12435 Euclid Ave., Cleveland, OH 44106.

POWER AMPLIFIER/BOOSTER FOR AUTOSOUND

RCA's new stereo booster amplifier is available in three versions for the universal and custom autosound markets. Each provides high volume, low distortion output of 20 watts per channel, for a total of 40 watts, to help overcome road noises and enhance listening pleasure.

These new amplifiers are usable with most car radios and tape players, and especially suitable for upgrade speaker systems such as the RCA Hi-Tech series of co-axial and three-way types.

The only difference in the three versions offered is in the radio and speaker leads. RCA's two Custom models include #20C655 with GM-type connectors and #20C656 with bullet connectors, while the Universal model #12R906 is provided with unterminated connectors that utilize wire nuts furnished with the unit.

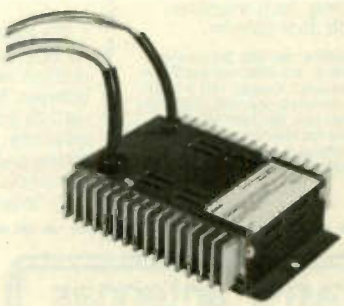
Each of these amplifiers provides output for two speakers. In four-speaker installations, the amplifier will work with front or rear speakers, with the two unamplified speakers powered by the radio, whose fader control will then operate normally.

The amplifiers require no switching. This feature, coupled with small size and light weight, makes the RCA amplifier ideal for concealed installation behind dash or in glove box to minimize the chance for theft.

A built-in protection circuit prevents damage to the booster should the speaker leads inadvertently be connected together or grounded.

Dimensions of the three units are identical: 1¼ x 4 x 5½ inches (32 x 102 x 142 mms).

Further information is available through RCA AutoSound Distributors, or RCA Distributor and Special Products Division, Deptford, NJ 08096, attn: Sales Promotion Services.



If you're really serious about CB, put your money where your mike is.

Serious CB operators who want to get the most from their transceivers have been setting aside the microphones that came with their radios and replacing them with Turner Microphones. In the United States, they've been doing this since the 1950's. Now they are doing it in 33 countries around the world.

Why?

Radio manufacturers, in order to keep the cost of radios competitive, have designed simple, inexpensive microphones that are just that and nothing more. Turner amplified mobile mikes, on the other hand, with 0 to 15 dB gain controls can supply the extra "talk power" that will fully modulate the radio. Noise cancelling Turner mikes eliminate the unwanted background noise in truck cabs and tractors while delivering clear modulation of the desired signal. Amplified Turner desk mikes with gain controls, push-to-talk switches and lock levers allow the base station operator ease of operation, flexibility and much more "talk power" than the original microphone.

So, if you want to improve your radio's performance quickly, inexpensively and effectively, then get serious and put your money where your mike is — on a Turner Microphone.

Super Sidekick

This is an outstanding base station mike for SINGLE SIDEBAND operations. The Super Sidekick power mike has two gain adjustments to match the sensitive input requirements of both high and low impedance transceivers. If you're a sidebander — you'll be QSA-5 with this mike.

+3B

The rugged die-cast case, temperature-stable silicon transistors and humidity-resistant ceramic element make this power mike practically indestructable. Maximum -23 dB output is easily adjusted by a gain control on the front panel for powerful audio - free of QRM.

RK 56

This is the "truckers' favorite" A combination of economy and exceptional noise cancelling, dynamic performance. In large truck cabs, an extra long rugged coil cord provides easy mike handling and the noise cancelling feature blocks out unwanted background noise for clearer transmissions.

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Shakespeare says:

"WEST IS BEST!"

DENNY King, Marketing Manager of Shakespeare's Electronics and Fiberglass Division, has his six guns aimed at rip-roaring success in the 1980's. "To be number one in the CB antenna field, you have to stay on top of things," says King, and "today, that may just mean wearing a ten gallon hat and heading for the nearest rodeo."

Shakespeare established leadership during the CB boom of the mid-seventies and part of that dominance was due to the Shakespeare symbol of the times, the famed "Knight of the Road." "Today," says King, "the nation is on a western craze and we plan to be part of it . . . a big part." Of course, he is referring to the dominance of such films as "The Urban Cowboy" and Clint Eastwood's "Bronco Billy," along with the spectacular following for the TV show "Dallas."

National magazines and CB hobbyist publications (like *S9*) were used to kick off the "Ride the Big Range, CB Cowboy" media blitz featuring a couple decked out in western gear and heading for the wide open places on a twentieth century steed . . . a ten thousand dollar plus sports car. "Shakespeare will not limit the Western motif to advertising, either," King said. "Packaging, displays and even the names of our new CB hardware will reflect our commitment. We plan to lead this market in a big way, even if it means trading in our three piece suits for boots with pointed toes and learning to live with saddle sores!"

The Radar Column

by "Jammer"

TURNABOUT

One of our readers, whom we'll call P.L.G., of Maryland, reports that things aren't quite as rosy with radar detectors in the nation's capitol as we had suggested in the April column. He says that they are still confiscating the detectors and trying to nail those so caught for a $50 fine. Seems the judge whose happy radar "decision" we reported on last April was only one of several judges who had their say on the subject—and the other judges all disagreed with him. The original data was furnished by a reader who swore he got off the hook with his detector! So—stand informed!

FOX vs. FUZZBUSTER vs. WHISTLER

In last month's report we compared the Fuzzbuster Elite with Whistler's standard remote unit. When we use the term standard for any detector, we mean a unit that is not in the class of the very expensive, very sophisticated superheterodyne class. In that test, you'll recall that the Whistler outperformed the highly touted Fuzzbuster by an impressive margin.

Our next series of tests involved the Fuzzbuster Elite against the standard version Fox unit produced by ComRadar. Here again we tested both units, side by side, on a wide variety of road conditions in several counties around the metropolitan New York area. The purpose of the tests was to see which, if either, of the two units being tested would offer an earlier warning than the other, and whether or not the second best unit would still offer sufficient warning to effectively prevent the tester from being stopped by the radar patrol car.

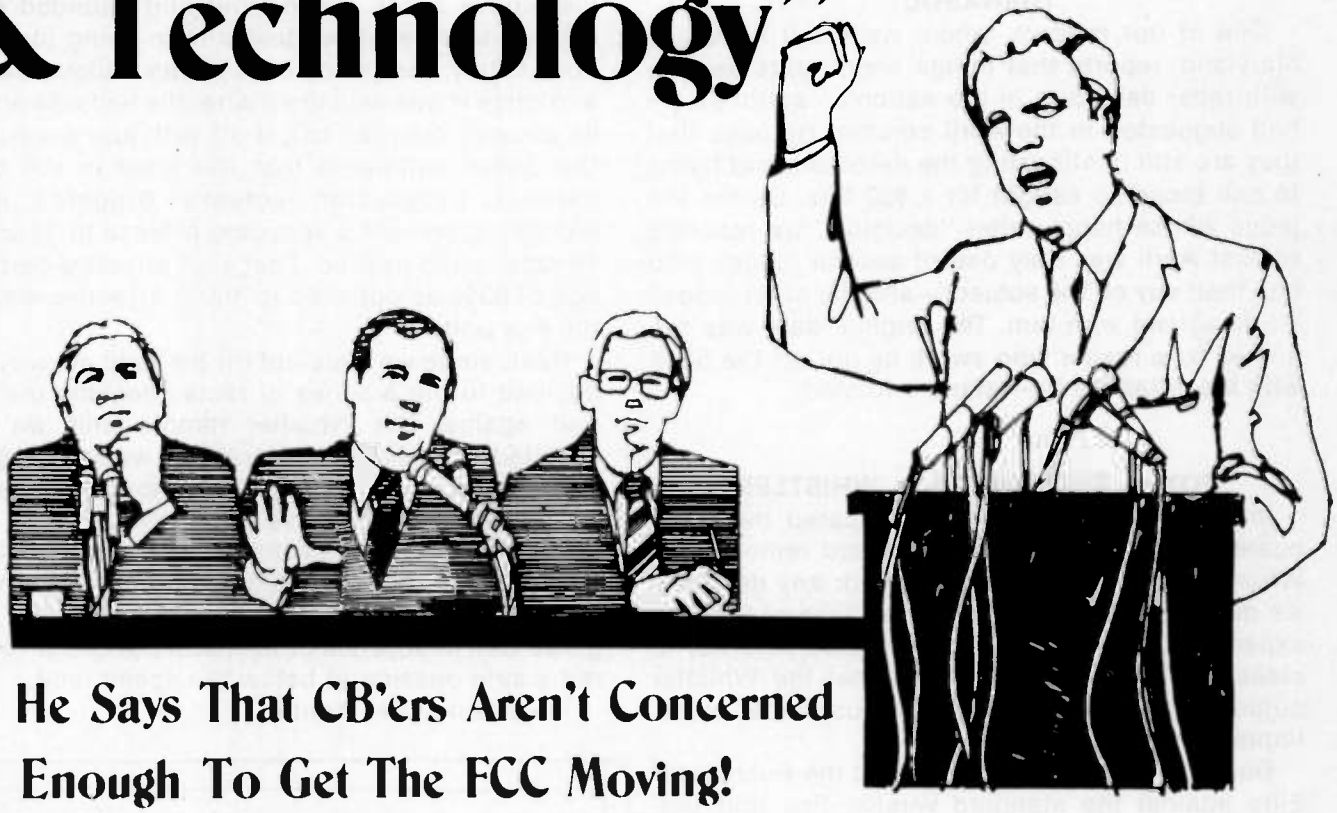
The Fuzzbuster was placed adjacent to the Fox unit and our tester went on his way. He logged in nineteen separate occasions where one or both detectors indicated an actual radar patrol—one that he could actually see as he went by. In sixteen of the separate warnings the Fox unit sounded earlier than did the Fuzzbuster, in most cases by a margin of two to three tenths of a mile. On two occasions the two units triggered simultaneously, and on one occasion the Fuzzbuster alarm went off earlier than the Fox. Again, as in the case of the test with the Whistler unit in last month's report, this situation was one in which the radar patrol was just above a hill, and neither unit sounded early enough to prevent our tester from being stopped. Fortunately, the police officer was understanding, and when it was explained what the test was about, he allowed our man to get off with just a warning. Our tester estimated that the loser in the comparison, Fuzzbuster, actually triggered early enough to prevent a speeding offense in 12 of the 19 radar units passed. That's an effective percentage of 63% as opposed to 100% effectiveness for the Fox unit.

Next, since we were out on the road anyway, we decided to run a series of tests checking the Fox unit against the Whistler remote unit we had reported on last month. Since time was running out on daylight, we ran only 13 comparisons before calling it a day. In these tests, the Whistler unit sounded first on 4 occasions, the Fox first on 3 occasions, and they sounded simultaneously on the remaining five. On all 13 checks, both units triggered well in advance of the radar patrol car to permit a safe passing at below the speed limit.

More tests next month.

A Former FCC Engineer Talks About:

"Regulation-Legislation & Technology"



He Says That CB'ers Aren't Concerned Enough To Get The FCC Moving!

By Gus Howard

We recently heard a talk by a person that knows his subject from experience. He was an engineering consultant to the House of Representatives subcommittee that is studying the rewrite of the Communications Act of 1934. The theme of his talk was "...the regulatory and legislative processes of our government usually move slower than the pace of technology." The gentleman was speaking of two- way radio and legislation pertaining to it.

It seems natural that rule making and legislation should follow technology... provided it doesn't lag so far behind that the public interest is submerged in a pool of regulation and red tape. We agree with Thomas Jefferson in his thinking that the least government is the best government. So it makes sense to us that two-way radio legislation should follow the technology just enough to allow the public to have the advantages of its technology. We mean just enough to let the public make the best use of its technology.

It is high time CB'ers became concerned if they want to see an improvement in their two way radio service. We mean to say the present regulative and legislative activity is so slow and lacking in imagination that the present CB'er is going to be left out of the immediately available electronic innovations.

We say this after looking through the proposals in the rewriting of the Communications Act. We don't find the Citizens Personal Use Service recognized as a service nor do we find any direct reference to it in the recent actions at the World Administrative Radio Conference in Geneva. How come we don't? Section 303(g) of the Communications Act of 1934 says the Federal Communica-

tions Commission shall "Study new uses for radio, provide for experimental uses of frequencies, and generally encourage the larger and more effective use of radio in the public interest." When Congress put that in the Act they didn't intend for the legislation to lag too far behind the technology, if any lag at all was anticipated.

IT WAS A NOBLE IDEA

In 1945 the Federal Communications Commission under the leadership of Commissioner E. K. Jett came forth with an imaginative Citizens Service that was ahead of its time, practically speaking. The service was possible technically but it was not practical because it was too expensive for the ordinary consumer. In 1958 Commissioner Jett's service was practical in that it was economically viable as a land mobile service for business operations. Some of the FCC reports of 1956, 1957 and 1958 mention this. So the service as originally proposed (land mobile for Citizens in the 460MHz band) ended up as a commercial radio service and the personal use idea was doomed to die on an unused Amateur frequency...11 meters (27 MHz). When this happened CB grew beyond all expectations because the gear was cheap and readily available. This expansion took place in spite of the fact the frequency 27MHz was unsuitable for such a use as planned by Mr. Jett and his cohorts.

UNSUITABLE FREQUENCY

So that is how a much needed public service ended up on an unsuitable frequency. UHF (460MHz) was too expensive for the grass roots individual operation but was economical as an adjunct to a business enterprise. A personal use radio service is a necessary luxury, even a necessary convenience, for the average citizen, hence the cost of the gear has to be very low if he uses it. This needs to be pounded into the heads of the lawmakers and legislators. The public needs the advantages of two-way personal use radio; but the service has to be very economical when compared with a service that makes money for a business enterprise. The public needs this service but they can't afford to buy expensive gear and they can't afford to get the service from a common carrier.

Now the FCC and the NTIA (National Telecommunications Information Agency) are recommending a service in the 900MHz area. They are making the very same mistake that was made in 1945! Setting up a service the public can't afford. *Somebody* is going to have to look out for us taxpayers and we think it is going to have to be us. We're going to have to look after ourselves!

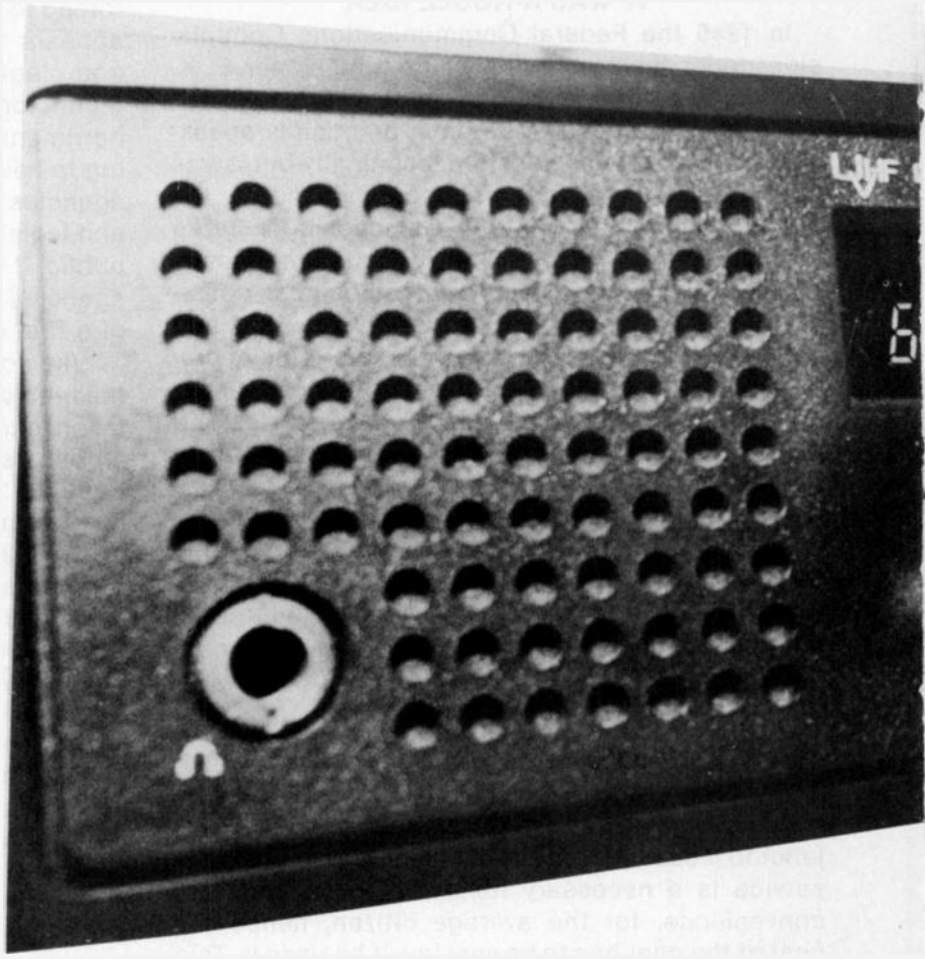
Citizens Banders are going to have to do the necessary pounding; that is, CB'ers are going to have to tell the agencies the public requires the advantages of a first class land mobile service. The agencies fooled around and almost lost CATV to the public. We might as well not let them hamstring public use two-way radio. The technology is here and the economical frequencies can be found if some diligent searching is done. CB gear could be cheap in the vicinity of 200MHz. If this band were to be used the agencies would have to be forced to do something besides look for excuses. It appears the speaker was right "...the regulatory and legislative process moves slower than technology" and it moves slower to a degree that is detrimental to the public interest. The public is going to have to pound that fact into the heads of the agencies and demonstrate to them that regulating and legislating need not be such a handicap to the public. If this is not done nothing will happen at the agencies that will be conducive to the development of a first class personal use two-way service.

When one talks with a law-maker or a regulator—the regulator explains that Citizens Banders can be taken care of under the general heading of land mobile users. They say just categorize your allocations as "land mobile" and the individual governments can develop whatever is required in the way of two-way services, Citizens Band, Amateur personal use, commercial or what have you. That talk is all well and good but it misses the point.

The point is that the new rewritten act should direct the agencies to provide a Non-Commercial Personal Use Radio Service for the public. We are saying section 303(g) of the Communications Act of 1934 should be rewritten and included in the new act. We suggest the section might read "Study new uses for radio, provide for experimental uses of frequencies, and generally encourage the larger and more effective use of radio in the public interest and provide a legislative climate that will be conducive to the development of a two way mobile radio service that is as readily available to the citizen as the radio broadcast service is." Such legislation might have a tough fight with the common carriers but we won't rest until the public has what it is entitled to under the present technology. Something should be done to bring our legislation within sight of technology anyway.

ABOUT THE AUTHOR: Mr. Howard was, until he entered private practice as a communications attorney, with the FCC's Dallas (Texas) office, being the Engineer in Charge between 1955 and 1972. Prior to his 27 year FCC career he was a broadcast station engineer and even a police radio operator. He is a Senior Member of the IEEE, holds an LLB degree, and an Amateur Extra Class license.

Climb Aboard The: SCANNER



How many times have you thought to yourself, "There must be something else going on in the radio bands?" If you're like most people the thought must have occurred to you at one time or another.

CB is a great hobby and provides plenty of action whether on AM or Sideband. You can use CB casually as you drive or get into it as a serious hobby. It depends how much effort you want to put into it—really serious hobbyists will go all out and try various antennas, including cutting their own.

However, beyond CB, there's a whole radio spectrum just waiting to be listened to. There's "low band" communication, also called HF because it is high-frequency; very high frequency (VHF); and ultra high frequency (UHF). And there's all sorts of action on those channels—life and death emergencies, air communications, Hams talking and just day-to-day business communications. It's all interesting.

Every month *S9* runs Rick Maslau's *Monitor Post* for scanner users and this column should give you a clue to what I'm talking about: scanning. It's a great hobby.

The scanning hobby probably began about 15 years ago, with the introduction of crystal-controlled scanners, which gave a taste of the action. The only problem then was you had to know the frequencies you wanted to listen to. You were then limited to them because the scanners required specific crystals—once you had them in place you couldn't move unless you went out and bought a whole new set of crystals.

The microprocessor revolution, however, has changed this situation in the last five years. Scanning has benefited because the computer chip microprocessors have allowed the introduction of programmable scanners. The serious scanner listener is now free to vary his or her frequencies at the touch of the buttons. A further refinement of this has been the inclusion of search modes on scanners and specific frequency set-asides, like marine and aircraft.

Radio Shack's *PRO-2001* is one of the programmables which allows you to search various frequency segments, as is Bearcat's *220*. Both are good units, with good sensitivity. Radio Shack also makes the *PRO-2008*, which is programmable for eight channels, and which doesn't have a search mode. Industry rumors, though, say they're coming out with a super-scanner which will include this and other features.

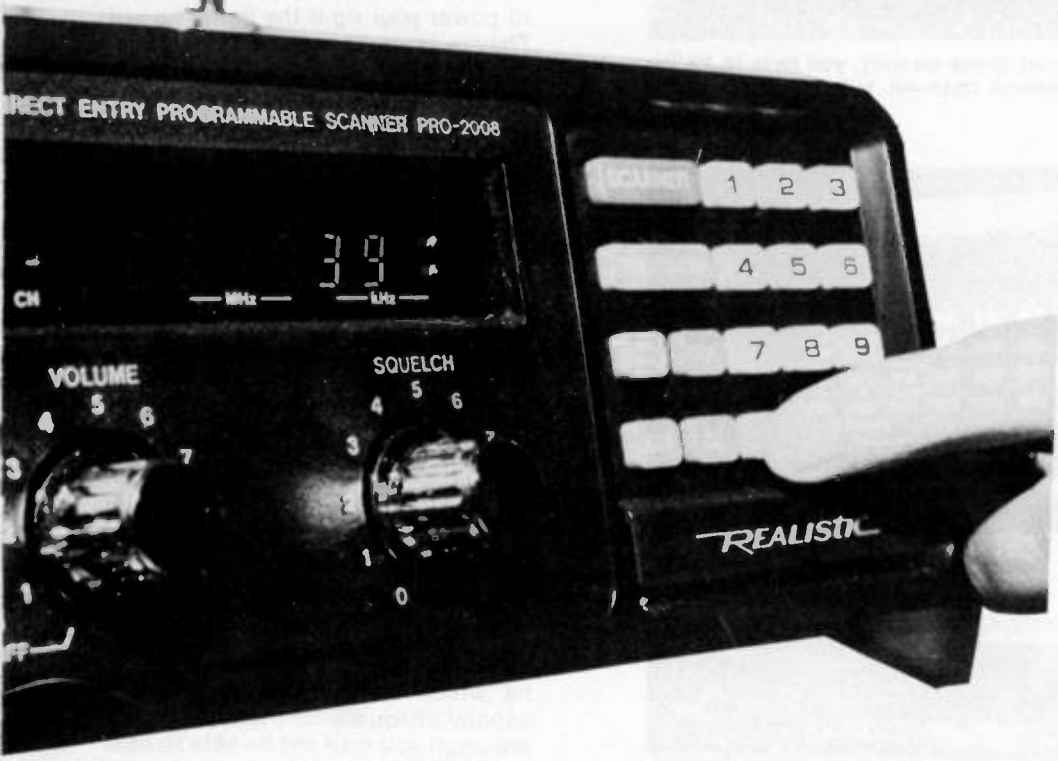
Russell Industries also makes a fine scanner, but more about that one later.

The beauty of the new solid state programmable scanners from Radio Shack, Regency, and Bearcat, is that they are crystal-less because they use frequency synthesized tuning, which allows a multitude of possible frequency combinations on the various bands, without crystals. They have been a boon to the scanning hobby.

So, you might want to try scanning to see what you're missing on the radio frequencies. It's not hard to do at all. And the beauty of some of the scanners made today is that you can use them both at home and on the road. They run on either household AC current or off a car's recreational vehicle's electrical system.

BANDWAGON!

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



For those of you out there who are interested in scanning, we'll try to shed some light on the subject, and give you some beginning hints for either your home or mobile.

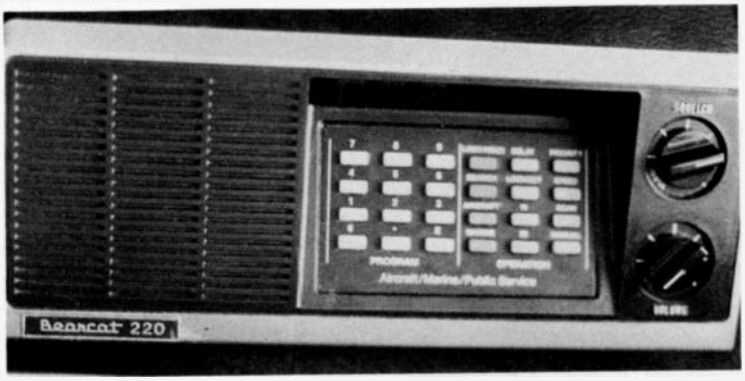
The first question that arises is which kind should you buy? The answer is easy. If I had my choice I'd stick with one of the modern programmable scanners. They offer great versatility and digital readouts. Older scanners, unless you know the specific frequencies, only offer a row of quickly blinking lights.

One good scanner is the Radio Shack *PRO-2008*. It's a frequency synthesized programmable, which features a large blue fluorescent display. Frequency entry is easy with the keypad. To enter a frequency all you have to do is hit the program button and enter the frequency you want (within the specified limits in the instruction booklet). Then you move onto the next channel and program it.

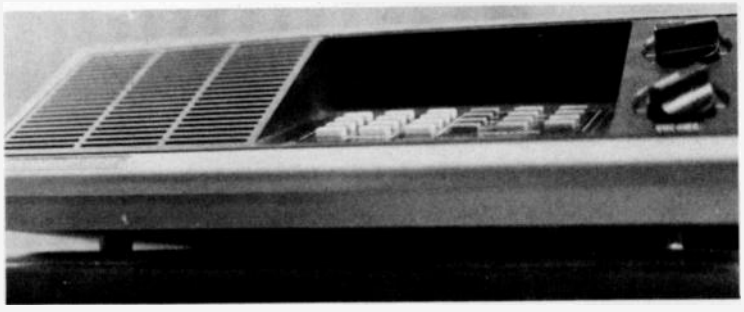
(continued)

Programming a Radio Shack *PRO-2008* eight-channel scanner is easy. Frequencies are entered at the touch of a series of buttons.

Before you finally enter a channel in the memory, you have to hit the ENT. button. Notice the horizontal dash—it tells you that you're programming.



One spot you might try in your mobile is the transmission hump on the floor of the car.



An alternative for when you're at a campsite might be the dash. Never use this spot when you're driving.

The *2008* is a good representative of all scanners. In addition to easy programming, it features a manual setting so you can monitor one frequency continuously. It also features a lockout so the scanner will scan, but step over a frequency you want to keep in the memory. There's also a delay setting which keeps the scanner hooked to a frequency for about two seconds after a transmission ends, so you can hear if there's an answer. Changing a frequency is easy —all you do is hit "program" again and enter the new one.

With a model like the Bearcat 220 you get the added features of aircraft and marine band monitoring at the touch of a button, or you can also search the various unknown frequencies.

Data on the different frequencies which are most interesting to monitor on a scanner is available from several sources these days. We've always used those put out by CRB Research (P.O. Box 56, Commack, N.Y. 11725), and if you send them a self-addressed stamped envelope they'll send you their catalog. Be sure to ask about their publications called "Top Secret Registry of U.S. Government Radio Frequencies (25 to 470 MHz)" and "AIR-SCAN Registry of VHF Aero Stations (118 to 136 MHz)" as these are about the best and most useful scanner data publications ever produced!

Okay, let's assume you've gone to the local store and bought yourself the unit you want. What do you do when you get home?

The first thing I'd recommend is a thorough reading of the instruction manual. Don't assume that because the front of the rig is well laid out that you're an expert before you start. Chances are good you'll skip over some routine procedure and your new unit may not work at all.

Before you plug in your new rig, check and see if there's a battery compartment. These batteries aren't to power your rig if the lights go out. They're there to protect the memory in case of a power failure. They will keep your stored frequencies for the length of an average power shortage. Most have a maximum life of about eight hours, and should also last a year while just sitting there waiting. Your AC power cord will provide enough current to keep the memory alive. (Some scanners have what they call non-volatile memories which don't require a battery for protection. Once entered, they stay.)

The next step is to power your new scanner up and punch "manual"; this will enable you to enter your frequency choices one at a time. Then hit "program" and you're all set to enter away. This is the basic drill for most scanners; it varies very little from one to another.

So, let's assume you've got your eight or 20 frequencies put in. What's next? Run up the small vertical antenna which comes with the rig. It's usually adequate for most reception, although you may not be able to hear the mobile units of a distant two-way radio system. If you want super reception, mount a multiple band UHF/VHF antenna to your roof. This should give good enough reception to practically blow you away.

If you're in an area full of interference you may want to lower the small whip antenna to cut it out, or you may want to crank up the squelch.

All the units come with an adjustable squelch, just like your CB rig. Turn the squelch up to the level you want to keep the scanner free of unwanted noise. The squelch is a key part of your scanner. If you leave it too far open, you'll find your new unit will just hang up on one frequency. With the squelch properly set, it will just scan away until it hits a signal and will then lock on.

Some units have what is called a priority button. This means that although the scanner will continuously check the programmed frequencies, it will also give an extra look-see to a predetermined channel (usually

one). So, if your new rig has a priority button, make sure your favorite channel frequency is there.

Each scanner has its own set of features, with some having many more than others. Some of the newer super-scanners do most of the basic programming for you with pre-programmed Ham bands, weather bands, air bands, police bands, fire bands and more. To scan each band you simply hit a button. Then comes the fun part because if you hear a frequency you want to keep in the regular memory, you have to be quick enough to see it and store it. All you really have to do is hit "program" or "enter" and it's all done. The trick is being quick enough to do it.

Most scanners do have other features which include a slow scanning speed. This will let you pick the speed at which you want to hear, and it should also be a boon when you want to check a new frequency.

One of the features you might be glad to get is a search mode. The special channel buttons allow you to search special frequencies easily, but they usually do it in great bites at a time. With search, you get much smaller frequency chunks at a time, something I feel is better.

So, scanning is an easy and fun hobby, but you have to remember that under Federal Communications Commission rules the conversations you hear are private, for your ears only. Don't go spreading what you hear around. Also, in some localities it may be illegal to have a scanner, especially if it's in your mobile. It's best to check first.

Scanning is also a great hobby to take with you when you head away from your home. It doesn't have to stop just because you close the front door and put the key in the lock. There are some scanners made specifically for cars or recreational vehicles, while others are made for both home and mobile use. The rigs specifically designed for mobiles usually have a smaller number of channels available for programming, but they also feature the same features of their bigger brothers, including memory.

One caution here before I get into mobile scanning. Remember how, when you first get your rig, you have to put in batteries to preserve the memory? The same is more or less true in your mobile. However, you can get around that necessity if you connect your rig's power cord to a live terminal and turn it on and off with the on/off switch. This way there's always a small amount of current feeding the memory. (Don't worry, the draw is so small your battery won't even know the rig is there.)

You may not want to leave your rig in permanently because scanners make inviting targets for thieves. And, you're probably not rich enough to afford two scanners, right? If this is the case, then the memory protecting batteries are a definite must.

A couple of months ago, I gave you some hints on installing a hidden CB rig and many of them still apply when you're searching for a place to install your new scanner in your mobile or recreational vehicle.

The first thing to do is go out and study your vehicle for the most likely areas. Give your mobile a thorough scouting trip and mark the likely spots on a note pad. Make sure that none of the locations interfere with your ability to drive safely, and, still further, make sure you won't be too easily distracted by the scanner's rapidly flickering lights. For this reason alone, the best spot is probably under-dash and on the passenger's side.

Another good out-of-the-way choice is the transmission hump. If you do pick this spot, make sure your heater blower won't blow directly on your rig. Even though it may say solid state on the outside, inside there are still transistors and they are temperature sensitive. If they get too hot, say bye-bye to your new rig as it goes out to the repair shop.

Next, go back into your house and bring your rig out with you, along with your tools. You're going to need a 7/64's drill bit (unless there are some pre-cut holes), a flat-bladed and a Phillips screwdriver (just to be safe) and a couple of open-end wrenches (3/8's should do it, possibly 5/16's).

Before you begin drilling or sinking screws, take the time to put your rig in the various spots you have chosen. Make sure it fits with adequate clearance and make sure your passengers won't hit it when they sit down or cross their legs. All this takes only a few extra minutes, but it is time well spent.

With all this done, begin looking for those pre-cut holes we mentioned just a minute ago. They save lots of time. But, if you can't find any, you're going to have to punch some of your own. If you have to drill, check out the exact size of the bolts in the instructions that came with your rig (7/64's is pretty standard).

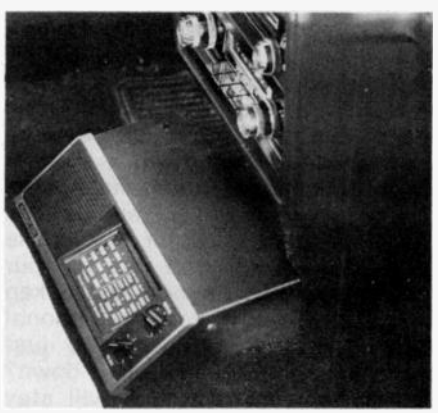
With your drill at a relatively low speed (to keep the bit from binding or heating up and snapping) drill the holes you'll need (usually two). After this is done, take the hanger bracket and snug it down with either the self-tapping bolts or regular bolts.

Once this is completed, I'd suggest attaching the power cord to either the ignition switch of your mobile or a live fuse outlet (in most mobiles there are unused ones which are "hot"). Then attach the ground wire to a sheet-metal screw that's attached to your car's body (in many of today's smaller cars, with their plastic dashboards, you'll have to do some searching). Once this is done, put your scanner into the bracket and snug down the holding screws. After this all you have to do is connect the ground wire and the power cord and you're in business. The same applies for the transmission hump, although make sure you don't drill too deeply or you chance hitting a vital part of your drivetrain and then your mobile won't be mobile any more.

The next part is easy. All you have to do is attach a good tri-band mobile antenna to your vehicle and run the antenna wire to the back of the rig. This is relatively easy if you're coming in through the trunk. Just push it in back of the rear seat and run it along the molding around the doors. This should give it plenty of protection. However, remember your reception won't be as good as if you were using a roof mount.

(For a roof-mounted antenna you're going to have a punch a hole in the metal—remember to make sure you've got a weather-sealing grommet—and then you're going to have to remove the headliner retaining screws inside and run your coax in like that. This, I believe, is a really complicated way of doing things, unless you're a perfectionist. You'll also need the help of a friend.)

I'd advise against dashboard mounting because the flashing lights of the scanner and its position can



Place your scanner on your mobile's floor near the area you've picked. This way you can tell if there will be any problems. You might also want to try the transmission hump—it makes a good spot.

easily distract you from driving. It will also block your vision.

Once all this is done, power up your rig and enter the frequencies you've chosen.

Here's an interesting tip I recently ran across while re-reading an old manual. If you don't want to invest in a new antenna—one which could tell thieves there's a scanner inside—you can make use of your mobile's antenna by extending it about 18 inches. It won't give you the top performance of a good tri-band, but it's not bad either.

If you don't want to go through all the hassles involved in permanently mounting your scanner, you can always put it on a slide mount (consult your dealer for the correct modifications) or you can just lay it on the front seat, although this doesn't make for very satisfactory use.

Another hint to prevent theft is a magnetic mount antenna. This will take it out of sight and not give would-be thieves any hints about what's in your mobile. Besides, using a mag mount antenna is easier.

For recreational vehicle installations, you've got all the above options open and a few more. You can mount the rig on the engine cover of your R/V (especially if it's a van) or use the console bucket between the seats (if it's a four-wheel-drive vehicle).

If you've got a trailer or mobile home, then the sky's the limit because you can put your scanner just about anywhere and leave it permanently. I leave it to your judgment just where you want to put your scanner.

You'll have to remember, with your recreational vehicle, to beware the fiberglass body. Even receiver antennas need a groundplane to operate correctly. This means they have to be mounted on a metal part of your vehicle's body.

The fiberglass bodies of recreational vehicles present some problems, though. Because there's no real metal (unless you think of the frame), there's no real ground plane for the antenna. Since, with a scanner, you should be using a tri-band antenna one of the non-ground plane marine antennas really won't do.

The solution is either mount the antenna on the metal cab of your recreational vehicle or use chicken wire on the roof of your recreational vehicle. This will do the job just perfectly. How do you keep it down? Use epoxy cement and it will stay nicely. Another couple of tricks include using grounding straps on the roof and down the sides of your R/V's body or attaching the antenna directly to the metal frame. If you use this option seal it well against the weather or you'll have problems during the first heavy rain).

Which brings us to still another scanner option, the Russell Industries *Digi-10*.

The RusScan *Digi-10 H/U* proves that you don't even have to leave scanning behind you when you're out taking a walk or hiking in the woods.

It's a 10-channel hand-held pocket scanner with capacity to scan the VHF and UHF bands. You don't have to use this model only as a hand-held, you can also put it into your pocket and listen to what's going on.

What are some of its features? The *Digi-10* features a scanning rate of 15 channels per second and it is the first pocket scanner to make use of an LED readout to tell you which channel you're listening to.

When you take possession of one of these little beauties you get 10 channels of listening adventure.

The *Digi-10* also features some of the things found on its bigger brothers (like the Radio Shack *2008*). You can lock out up to three channels and you can program in a delay of about a second which will keep your little pocket unit in that channel just long enough to hear a mobile unit's reply to the base station.

It also features an adjustable squelch control to block out any unwanted background noise, like its scanning compatriots.

The *Digi-10* comes equipped with a Rubber Duckie antenna, which should give you good reception. It is operated by rechargeable nickel cadmium batteries that are good for more than two years, the company says.

This isn't a microprocessor-controlled unit. You do need crystals which are available from any number of sources. In this case, crystals allow you to put only your favorite channels in so you can hear them. A drawback, though, is that you can't do any experimenting with it to see if there are other channels you might want.

But, these are really only minor drawbacks and they may even be pluses because you don't have to worry about changing things around, or about the memory being drained in the event you've waited too long to recharge the battery pack.

Altogether, this is a good-looking unit, which also has other features. You can have private listening, through the earphone jack, and there are LED indicators to tell you which areas the *Digi-10* is scanning.

With just this little scanner along you'll be able to hear your local police, fire department, weather broadcasts and other special interest broadcasts. And the best part is that once you've parked your mobile or R/V you can take this little feature-packed unit with you.

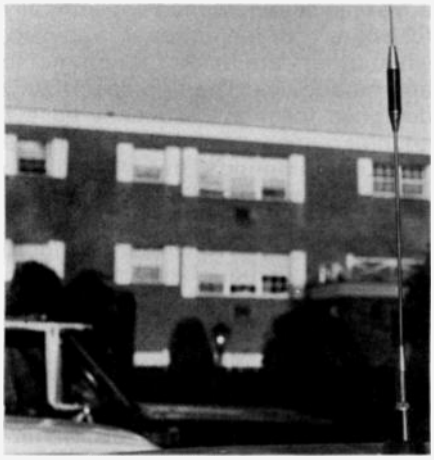
The RusScan *Digi-10 H/U* will let you take your scanning hobby with you, even when you're out for a walk.

It shouldn't be too tiring carrying the *Digi-10* because it only weighs 8.8 ounces and its small size allows you to slip it right into your pocket.

Scanning is a fun hobby. With it you can find excitement you probably realized existed, but weren't able to listen to.

With the modern developments in scanner technology, scanning has now reached the stage where you can easily take it with you. Like CB'ing, it doesn't have to stop just because you're away from your home-20.

In the next few months, I'll be taking a look at some of the scanner antennas and will explain how they work. In the meantime, if you have any thoughts you'd like to pass along, you can send them to me c/o S9 HOBBY RADIO, 14 Vanderventer Ave., Port Washington, N.Y. 11050. I'll be happy to write about them in the future.



When running your scanner mobile, use a tri-band general communications antenna for best results.

New, K40 Magnamount: Grips like a grapple, actually improves transmission.

We double guarantee it.*

Exclusive Octopole Construction.

That's eight magnets set in eight different directions to give you a magnetic seal so complete and powerful, your antenna would stay up there if you could squeeze between two semis passing each other at 180 miles an hour. That's magnetic octopower.

* GUARANTEE I

Placed on the roof of a vehicle; properly tuned, the K40 Magnamount is guaranteed to transmit a further distance than a standard K40 without the Magnamount or you will receive a prompt and full refund from your K40 dealer who installed and tuned the Magnamount K40 for you.

* GUARANTEE II

Materials and workmanship are guaranteed for a full 12 months. Any part that fails to perform satisfactorily will be replaced absolutely free.

Exclusive K40 Flux Harmonics for Greater Transmission.

The magnetic radiation pattern was designed to match the K40 antenna radiation for greater distance than the standard K40. See our guarantee.

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1. Magnamount is a bigger, stronger magnet—in fact it's 8 bigger, stronger, magnets.
2. It doesn't just hold the K40 antenna, it helps it transmit further.
3. Remember the law of reciprocity. The antenna that transmits better, receives better.
4. It provides a flatter, lower SWR because the Magnamount is capacitance grounded.
5. It puts your 5/8 wave K40 antenna securely in place in the most advantageous place to work against a ground plane—high and free from obstruction. That's square in the middle, right up on top.

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BUYS THE MAGNAMOUNT
$42.50* BUYS THE K40
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K40 Magnamount.

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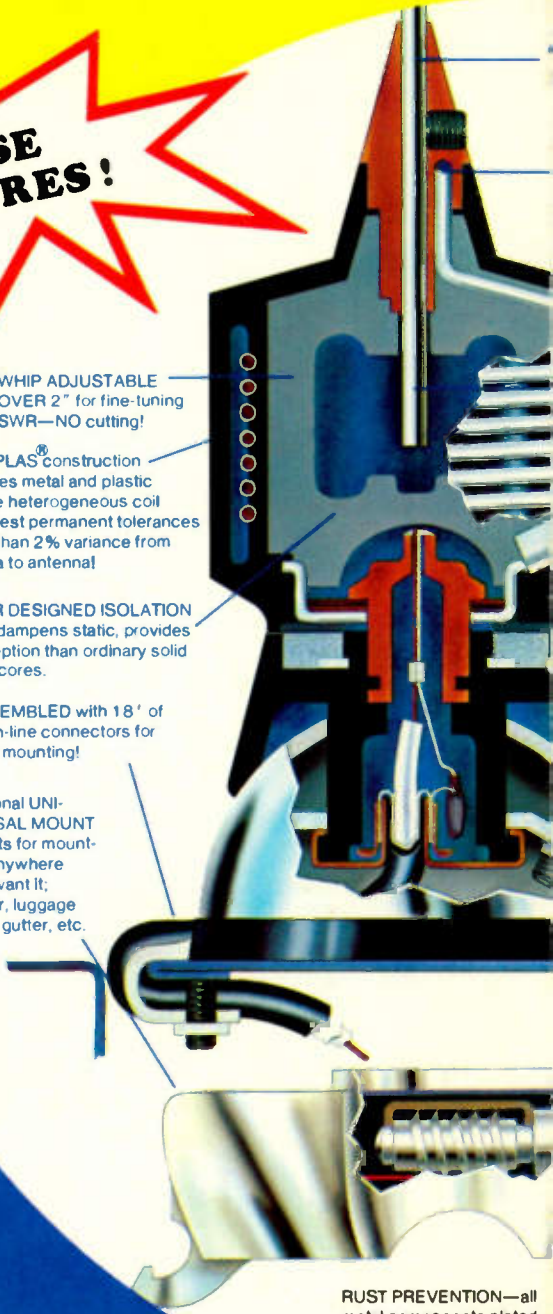

4 WHIP ADJUSTABLE OVER 2" for fine-tuning SWR—NO cutting!

5 METL-PLAS® construction combines metal and plastic into one heterogeneous coil for highest permanent tolerances —less than 2% variance from antenna to antenna!

6 COMPUTER DESIGNED ISOLATION CHAMBER dampens static, provides clearer reception than ordinary solid inductance cores.

9 FULLY ASSEMBLED with 18' of co-ax with in-line connectors for trouble-free mounting!

10 Optional UNIVERSAL MOUNT adapts for mounting anywhere you want it; mirror, luggage rack, gutter, etc.

RUST PREVENTION—all metal components plated to MIL-SPEC QQ-C-320B, MIL-STD868 and 870.

And when you pay more, you expect more!

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

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

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

*Suggested Retail

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DOUBLE GUARANTEE

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

GUARANTEE II: Unconditionally guaranteed for 12 months. Guaranteed against cracking, chipping, or rusting. Guaranteed against mechanical failure. Guaranteed against electrical failure. Guaranteed against accidental breakage. No exclusions. No gimmicks. For a full 12 months.

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3 FULL LENGTH 56" WHIP ground from 17-7PH Stainless Steel for 300% increase in signal-transmitting surface over 36" and 42" whips.

7 QUARTER-TURN QUICK RELEASE removes antenna from mount.

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

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

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

PERSONAL COMMUNICATIONS: ". . . an impressive 95% of the trials, the K40 out-performed the existing mobile antennas. We had to try one for ourselves. ". . . in every case, the K40 either equaled or out-performed its competitor. "No ifs, ands, or buts! The K40 Antenna from American Antenna would have to be just about the best antenna around."

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

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

ANTENNA SPECIALISTS: ". . . truck driver and CB'er for 10 years . . . 50% further than my M410 'Big Momma'."
—J.H. Collett, 207 McFee, Bastrop, LA

AVANTI: "I'm an electronic technician with a Second Class FCC license . . . I was able to transmit 70% further and tune the SWR 75% lower than my Avanti." *—H.R. Castro, VRB, Monserrante D-67, Salinas, Puerto Rico*

PAL: ". . . 20% better in transmission and reception than my 5/8 wave Pal Firestik." *—John A. Blum, Box 446, Zelienople, PA*

SHAKESPEARE: ". . . I've been a CB'er for three years and the K40 is the best I've ever had. Better in reception and transmission than my Shakespeare." *—H. Bachert, Jr., 15 King Rd., Park Ridge, NJ*

HUSTLER: "Compared to my Hustler XBLT-4, the K40 can consistently transmit 40% further and the reception was better. The K40 is the perfect way to complete a CB system." *—Jerome R. Brown, 7800 S. Linder, Burbank, IL*

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Unconditionally guaranteed for 12 months. Guaranteed against cracking, chipping, or rusting. Guaranteed against mechanical failure. Guaranteed against electrical failure. No exclusions. No gimmicks. For a full 12 months.

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CIRCLE 4 ON READER SERVICE CARD

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.

The mail has just been pouring in, not only from GRS operators across Canada, but also from the States, which was very surprising. I'll try to answer as many letters as I can in my next few columns.

First of all, let me stress that if your CB club has a social function on the agenda in the near future, you must send your information to me 3-4 months in advance, or earlier if you can. (This column was sent in to "Tomcat" before July 1.) Spring breaks coming up? Now is the time to send the information to me. Don't forget to include any QSL cards and pictures so they can be included in upcoming issues.

"Diamond George" (XM90-021) of Toronto, Ont. says it's A-1 news that there is *finally* a Canadian CB column in *S9*. George is one of the first at the newsstands to get a copy of *S9* as scarcely enough issues are ordered. This leaves him somewhat baffled, as there are thousands of CB'ers in Toronto.

George, there was a "regular" Canadian GRS/CB column in the third issue of *S9* (Sept. 1962)! It was written by Paul Arnovitz (XM52-127) of Montreal. Since GRS started on April 1, 1962, Paul was one of Canada's very first licensees! Unfortunately, the column ran for only 6 months, as there simply were not enough GRS licensees at that time to feed Paul information.

Maybe you can get the ball rolling to get more issues of *S9* on the newsstands. It might help and it surely wouldn't hurt. Better yet, a subscription would be super, as then you know it will always be delivered to your door (earlier than at the newsstand)—except when our famous Canadian postal strikes occur!

"Leatherneck" (KBN-4308), a former U.S. Marine of Bogota, N.J. is 78 years young! After reading his lovely letter, I think I'll adopt him—Himself I'm sure wouldn't mind.

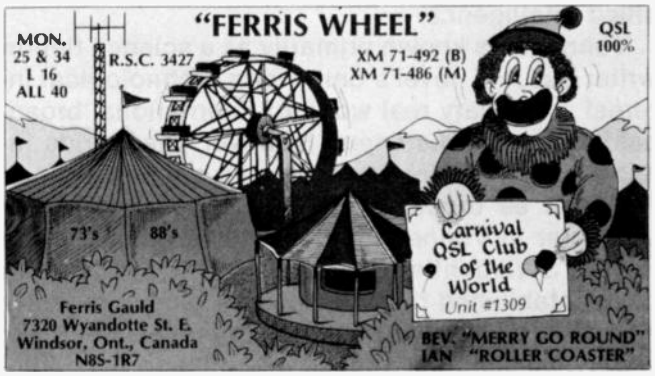
John has been coming to Canada since the age of 6, but only to Lake Weslemkoon (26 miles from Bancroft, Ont.) since 1965 to visit a cousin he had not then seen for 46 years. He took out his first Canadian CB permit in 1968 and has held permits ever since. Recently he sold one of his many radios (President Wash.) to a blind friend ("Lone Ranger") who has since had a whole new world open up for him. You can find "Leatherneck" ratchet jawing to his CB buddies at the lake from May to September every year without fail. If you happen to be around that neck of the woods, just give a holler for John. If by chance he doesn't answer, give the Tanglewood Marina (Chan. 22) a holler and they'll track him down.

Good heavens, John, you have your base in N.J.; a Cobra (base SSB) at the lake; a President "Teddy R" AM CB in your mobile and a Cobra 29XLR in your boat; next you'll be putting a rig in a plane! You wouldn't, would you?

The "Radar" you mentioned is not Ken, but I did hear of a "Radar" and "Hot Lips" who lived somewhere in Ont., but this was a few years ago.

Thanks for your help, you old "Yankee CB'er."

"Ferris Wheel" (XM71-492) of Windsor, Ont. enjoys *S9* very much and it is now the only CB magazine he buys (since "Canadian Notes" now appears on a regular basis).



Thanks, Ferris, and thanks to all you readers who wrote expressing your good wishes and encouragement. Keep those cards and letters coming (don't forget the picures)—I enjoy each and every one.

3's and 8's for now.

DX KORNER

C.M. STANBURY II REPORTS ON THE INTERNATIONAL SHORTWAVE SCENE

Send SWL reports to:
C. M. Stanbury II
S9 Magazine
14 Vanderventer Ave.
Port Washington, NY 11050

MOTHER NIGHT

In July's DXK we outlined the mystery surrounding Radio Million and Radio Noticias del Continente in Costa Rica, and our September column described South African commercial front operations Radio Capital and Radio Clube de Mocambique. Kurt Vonnegut's novel *Mother Night,* first published in 1961, was written long before any of these came on the air, except for the latter (and in 1961 RCM hadn't yet been taken over by the South Africans). Although *Mother Night* (last published in paperback by Dell) is Vonnegut's least known work, it may also be his most prophetic. It is certainly one of the first novels written by anybody centering around a shortwave broadcaster, "Howard W. Campbell, Jr."

The fictional Campbell is himself an author—of stage romances with heraldic settings, and a book of erotica which eventually becomes Russia's answer to the *Joy of Sex*—turned hardcore Nazi shortwave propagandist and secret American agent. Hidden in the most vile of Campbell's World War II hate broadcasts are secret messages for allied intelligence.

Vonnegut is known primarily as a science fiction writer but this novel's only major technological interest is the very real world of international broadcasting and its listeners. However, the worlds inhabited by high frequency freaks are certainly as fantastic as those of any space opera. A major character in Vonnegut's book, for example, is the lunatic SWL/dentist L. J. D. Jones, who claims to have established the principles of race superiority as determined by the condition of the teeth. *Mother Night* also contains a veiled reference to Carl McIntire—subsequently best known to DX'ers for his "Radio Free America" pirate broadcast in the early 1970's. More recently, as a result of our research into numbers, propagation fantasies (March DXK) and Costa Rica, we have been receiving from Florida a series of post card "death threats." Two are displayed in Figure I, but we are withholding the card that specifically relates to Costa Rica and propagation because it includes the name of an innocent bystander.

These post card messages are intended as satire (we think) but the U.S. Postal Service might not look at it that way. The individual sending them obviously took part in a fiasco called project "Morning Star," a 1976 attempt by a group of DX'ers to track down "numbers" transmitters—which was effectively sabotaged "from within." Morning Star just happened to coincide with that million watt test from Costa Rica, and the creator of these cryptic warnings knew about our Costa Rica research long before the July column came out in print. Fact is the cards were mailed in April—immediately after our numbers breakthrough appeared in *S9.*

And for anyone still not convinced there is a resemblance between *Mother Night* and the DX subculture, here's a quote from a memo by the nominal coordinator of the project: "Fellow Numon; . . . When the Morning Star results are published, I will not use your name. Instead I now ask you to select a code word of your choice, so you will be able to identify your own contribution to the report. I'm not saying anything sinister will happen, but certain events now make this precaution advisable. Besides, since we are spying on spy type transmissions, I think it would be fitting to be James Bondish." By the way, our code name was "Orpheus."

LOOSE ENDS

Carl McIntire dreamed up Radio Free America after the FCC (in a decision which many still question) revoked the license of his WXUR (AM & FM) at Media, Pennsylvania. For some reason McIntire chose a vessel, which he renamed "Columbus," flying the U.S. flag. As a result, the FCC had no trouble whatsoever shutting down this unlicensed station. Exclusing unannounced tests, Radio Free America broadcast one day only—September 19, 1973—on 1160 kHz off the New Jersey coast. At least one prominent DX'er participated actively in this venture.

Since independence, Radio Clube de Mocambique is known simply as Radio Mozambique. The main transmitter site at Maputo (formerly Lourenco Marques) is sometimes heard in North America on

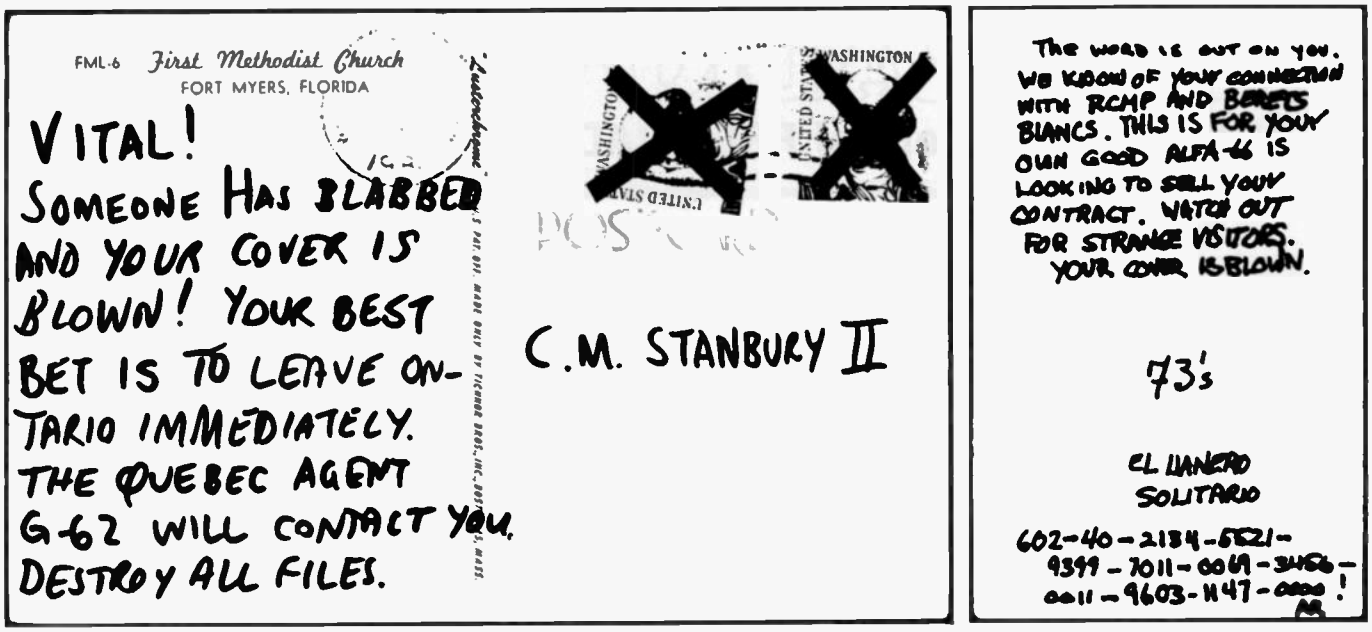


FIGURE I. "Death threats" from a "numon."

3215, 3338 and 4855 kHz during the 2200-2300 EST period. Meanwhile, one Portuguese possession which still belongs to Portugal is the Azores. These Atlantic islands can be readily logged via Santa Maria Aeradio: try 2945, 5373, 5610 and 8910 kHz.

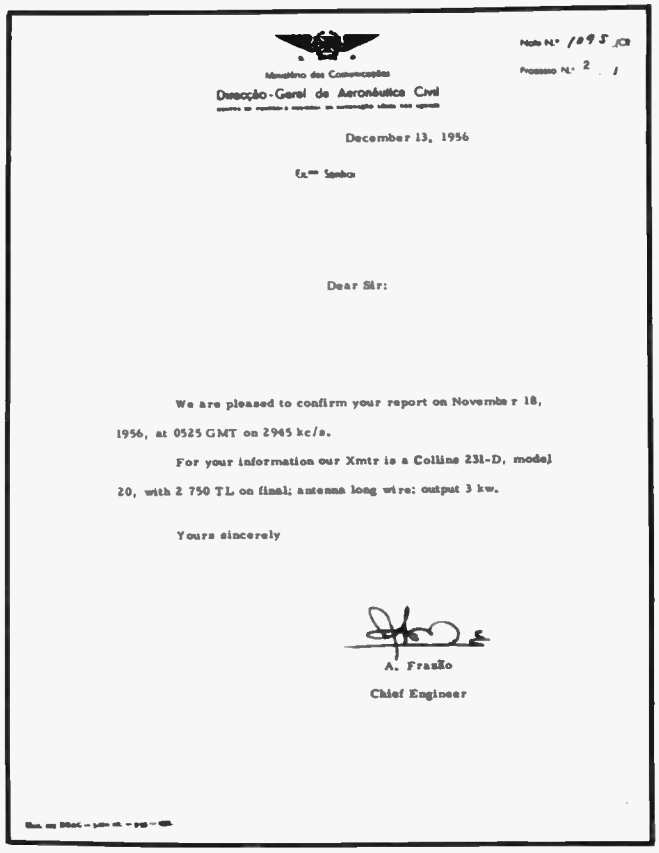
If you're looking for a real DX challenge this fall and winter, try logging the German numbers transmission on approximately 2700 kHz around 1900 EST. This one doesn't come from a Communist embassy in North America, or from Radio Habana Cuba, but instead is transmitted from an Eastern European site.

MORE ON TAPE QSL's

About a year ago we noticed that a viable alternative to paper QSL's (i.e. cards and letters) were tape recordings of station ID's. At that time we particularly had in mind ships, for which the mechanics of obtaining an address are unduly cumbersome. But the tape approach is also very useful when dealing with certain types of clandestines—those which never answer reception reports, e.g. the anti-Casto Cubans around the 40 Meter band.

At the peak of this spring's Cuban exodus a new Spanish speaking pirate turned up calling itself "La Voz de La Republica Patriotica Cubana." It was heard many nights around 7380 kHz between 2100 and 2130 EST. However, a seven word ID can be pretty rough to decipher, especially when the modulation isn't perfect and the word "Junta" is sometimes substituted for "Republica." It wasn't until we had played back the tape several times that we were able to make out the whole thing.

Now a collector can show off his QSL cards and letters to anyone, but for a listener to understand our tape of La Voz de La Republica Patriotica Cubana they would need some DX'ing experience, or at least have previously listened to Spanish stations. We have a similar problem with our tape of XEZX, an out-of-the-way BCB station at Tenesique on the edge of the Yucatan jungle. Last winter XEZX had a constant harmonic on 1720 kHz and during one S/Off (around 2055 EST) they announced their call letters at least three different times but an untrained ear simply wouldn't be able to make them out.



Ministério das Comunicações
Direcção-Geral de Aeronáutica Civil

December 13, 1956

Dear Sir:

We are pleased to confirm your report on November 18, 1956, at 0525 GMT on 2945 kc/s.

For your information our Xmtr is a Collins 231-D, model 20, with 2 750 TL on final; antenna long wire; output 3 kw.

Yours sincerely

A. Fraxlo
Chief Engineer

FIGURE II. QSL letter from Santa Maria Aeradio.

"FREE RADIO" CORNER

By Al Muick, President of FREE RADIO CAMPAIGN-USA

The Free Radio Campaign-USA (RD 2, Box 542, Wescosville, PA 18106) is a group of people (including listeners, broadcasters, and others) who support the idea of "Free Radio," that is, unlicensed "personal" broadcasting. While S9 does not encourage persons to broadcast without the proper license, we do support efforts to convince the FCC to set aside special frequencies for this purpose, and we do encourage listeners to seek out these interesting stations on their receivers, as many will QSL. For more information on FRC-USA, or for a sample copy of their newsletter, send 50¢ and a stamped self-addressed envelope to the above address. A subscription to the FRC-USA newsletter, The Wavelength, is $6.50 per year ($7.50 overseas). FRC-USA is a mail drop for the majority of North American "pirate" broadcasters, and reception reports can be sent to the stations in care of FRC-USA.

ONE new station to watch for is Radio Joy, apparently broadcasting from the northeast USA. Their programming is unique in the realm of Free Radio stations, and that's because they transmit only classical music! At the time of writing, they were scheduled from 1900 to 2000 GMT on Tuesdays on 7380 kHz with about 50 watts output. Radio Confusion made a test transmission on June 23 at 0100 GMT on 14550 kHz! This frequency proved excellent for propagation purposes and reports were received from all over the USA. It should be noted, however, that transmitting *in* the ham bands is a very poor idea. Those frequencies were set aside for Amateurs only. Transmitting outside those bands (as with Radio Confusion) serves to attract listeners who may be tuning for utilities.

Most of you have probably heard of the Italian radio situation; every little town has 4 or 5 radio stations. Due to a legal loophole in the Italian constitution, you can operate your own station on any frequency, anywhere! This does not apply to the "clandestine" stations which advocate political violence, and they are shut down immediately. Italy has several pirate stations on shortwave, most notable of which is the so-called Italian Broadcasting Corp., which transmits on the 48 meter shortwave band. They have programming in the major European languages and the programs are generally well done. With the coming winter bringing good DX conditions, this is one station to look out for.

Now on to England. This country has a wealth of pirate stations on mediumwave, VHF-FM and of course, on shortwave. Radio Rastafari International can be heard every first and third Sunday of the month on 7350 kHz. Also on the first Sunday you might hear Empire Radio or Radio Impact from 0900 to 1200 GMT on 6200 and 7340 repectively. The second Sunday you might hear Radio Zenith on 6235/7325 from 0900 to 1200 GMT, or World Music Radio on 7340 from 0800-1300 GMT. On the third Sunday of the month you can hear European Music Radio on 6235/7325 from 0900 to 1300 GMT. And finally on the fourth Sunday you might hear Radio Zodiac on 6235/7325 from 0900 to 1200 GMT. Below are some stations you might hear sometimes or every week:

Radio Julia on 6260 kHz
Westside Radio (Ireland) on 6280 kHz
Radio Krypton from 1100-1200 GMT (3rd Sunday to 1300 GMT) (no set frequency)
Radio Viktoria (Dutch station, but no transmitters in the UK) on 7360
Radio Caroline Shortwave on 6240 or 6275 kHz
Radio Nova on 7375 kHz from 1000-1200 GMT

Britain is also famous for her mediumwave and VHF-FM pirates which generally operate long hours on a Sunday and even on a Saturday. Most stations run on the average of 50 to 100 watts input and radiate an excellent signal over the populated areas of Britain. Some such mediumwave stations are:

Radio Telstar (Edinburgh, Scotland) on 1332 kHz
Radio City on 238 meters
Radio Jackie on 227 meters from 8 a.m. until 8 p.m.
Floss Radio on 222 meters from 11 a.m. until 3 p.m.
Southern Radio on 255 meters from 3 p.m. until 6 p.m.
Sunshine Radio on 222 meters (1352 kHz)
Swinging Radio England on 1332 kHz from 6 a.m. until 6 p.m.

You may have noticed that most of the stations prefer to list their meter band, rather than their frequency. To get an approximate frequency in kHz, simply divide the number 300,000 by the meter band.

The British VHF-FM scene is also swarming with stations. These stations usually operate in the late Sunday hours, when the BBC and IBA stations only have classical music or religious programs. Their listenership is immense, and so is their success. These stations are raided regularly, but their dogged persistence keeps them on the air in spite of

For Information About Our Advertisers . . .

heavy fines and sometimes imprisonment. Such stations are:

Radio Free London on 92 MHz FM from 11 a.m. until midnight
Radio Telstar South on 92.8 MHz FM from 7 p.m. until 8 p.m.
Thamesside Radio on 90.2 MHz from 7 p.m. until 10 p.m.
Radio Liberty on 90.4 MHz from 1 p.m. until 6 p.m.
Bromley Sounds on 94.4 MHz from 2 p.m. until 8 p.m.
West London Radio on 94 MHz from 7 p.m. until ?
Radio Skyline on 92.4 MHz from 6 p.m. until ?
Radio Red Flag on 90.3 MHz
Radio Activity on 96.2 MHz from 4 p.m. until 7 p.m.

Press time flashes: Green River Radio (QSL via FRC-USA) was scheduled to return to the air as soon as their "technical modifications" were completed (should have been by the time you read this). Frequency is 7340 (± 5 kHz), and they are usually transmitting during the general time period 0500 to 0800 GMT. There was some talk of running a mini-network with simultaneous transmissions from Green River Radio, Moonshine Radio and/or Pioneer Radio! Station Syncom 48 runs 48 watts between 6900 and 7000 kHz and also above 7300 kHz, also testing on 21590 kHz. New studios and transmitting facilities are now completed and the hope is to cover all of North America. Low power WSLD is on 1616 kHz with a miniscule 12 watts, but if you hear him you can QSL via FRC-USA! A new FM pirate in Chicago will be COHO Radio, running 300 watts (up from 25 watts under another station name) and featuring rock 'n roll music; frequency not announced yet. Station's Engineer is The Scorpion, and you can QSL via FRC-USA. WBLO widely reported about 0415 GMT on 3880 MHz. WONS on 6955 kHz says look for them on holidays around 0400 to 0600; last time they were heard they were

taking phone calls at 212-220-9979, apparently a "loop" number. WARG running their Midnite Show at 0502 GMT on 6960 kHz, reported from Michigan to California. The St. Louis Free Radio Network noted on 7338 kHz (lower sideband) at 0800 GMT with rock music. The Voice of Clipperton noted at 0612 GMT on 7370 kHz with music. The Crazy World Radio Network was set to go on 14550 kHz (± 10 kHz) at about 0100 from Potter Valley, Pa. WNYC-FM (not the "real one," but the "real pirate one") runs 10 watts on 93.9 MHz from New York City—look for them evenings and weekends in and around Manhattan. WIND is an FM pirate in the Akron/Dayton area on about 87.5 MHz. They run a "talk radio" format with news and sports features, filled in with music. Look for them in the evenings; QSL via FRC-USA. Station KDHS (840 kHz) QSL's with a nice letter via 625 Post St., San Francisco, CA 94103 (it's their mail drop address *only*)!

I hope that I'm providing useful data for the readers as well as opening Uncle Charlie's eyes to the fact that the "Free Radio" stations are here to stay, so you might as well make them legal!

I'd like to thank everybody who has written to me because they read my column in *S9*. I hope to hear from more of you in the near future! Also, I hope you will continue to comb the bands for your favorite "Free Radio" station.

ON THE COUNTERS

S9'S MONTHLY PRODUCT REVIEW

NEW REMOTE MOUNTED CB WITH FULL FEATURES

Pathcom Inc. introduced a new CB personal two-way radio to its product line with the introduction of the CB 8210.

This model has all the controls in a custom control microphone, which is a major feature of this advanced unit. The basic transceiver can be mounted under the seat or on the fire wall out of sight, with the full feature controls, including channel 9 standby operation, all performed from the microphone. There is also an optional extension cable, so the unit may be mounted in the locked trunk for further security.

The Pace model 8210 is assembled in the Pathcom U.S. manufacturing facility in Los Angeles. Pathcom, with its Pace brand of personal two-way radios, is a major U.S. manufacturer of CB equipment.

For more detailed information contact Pathcom Inc., Marketing Department, 24105 S. Frampton, Harbor City, CA 90710.

Mark number 52 on Reader Service Card.

NEW COMMUNICATIONS RECEIVER

A new five-band receiver from Radio Shack lets you listen to the world.

The Realistic DX-200 Communications Receiver tunes longwave from 150 to 400 kHz, 520 kHz to 1600 kHz AM broadcast band, and 1600 kHz through 30 MHz for international shortwave, CB, Amateur radio, WWV time signals and more.

Illuminated drum-type dials for both main tuning and bandspread tuning are said to make it easy to locate the frequencies you want. Bandspread covers both Amateur and shortwave bands. A built-in 500 kHz quartz-referenced calibrator and an adjustable cursor on the main dial assure frequency accuracy.

Other features include LED band indicators, an antenna trimmer for best reception with any antenna, an RF gain control that adjusts for best signal sensitivity, five-element ceramic filter for selectivity, lighted signal strength meter and a built-in speaker.

An adjustable BFO pitch control permits reception of CW (code) and SSB (single sideband) signals. The receiver also has a standby switch and rear panel "mute" terminal for use in two-way "Ham" installations.

The receiver is single conversion with a 455 kHz IF. Sensitivity is given as 1uV for 10 dB S/N ratio, and selectivity, ±4 kHz, −6 dB; ±8 kHz, −40 dB. Operates on 120 VAC, 60 Hz. U.L. listed. In a steel cabinet with a molded front. Size, 5¾ x 14½ x 8". The Realistic DX-200 Communications Receiver is available exclusively from participating Radio Shack stores and dealers.

Mark number 55 on Reader Service Card.

DUOFONE-16

An all-in-one telephone, the Radio Shack DuoFone-16, provides pushbutton dialing, a built-in two-way amplifier and an auto-dialer that can store up to 16 telephone numbers for instant, one-button dialing.

A universal dial system is said to give you the convenience of pushbutton calling almost anywhere in the U.S. without paying extra charges and regardless of whether your local telephone system is for pushbutton or rotary dialing!

An auto-redial feature provides one-button redialing of the last number called if the line was busy or did not answer.

The built-in two-way amplifier allows "hands-free" conversation and features on-hook dialing so that you need not lift the telephone receiver to make a call. A privacy button cuts off the microphone so that you can confer without being heard by the other party, or monitor conference calls without interrupting.

Up to 16 frequently called or emergency telephone numbers of up to 15 digits each can be stored in the auto-dialer. A battery-powered backup system (requires four "AA" batteries) maintains the memory in case of a power failure or relocation of the phone.

The Radio Shack DuoFone-16 Telephone with built-in auto-dialer and amplifier is available at participating Radio Shack stores and dealers.

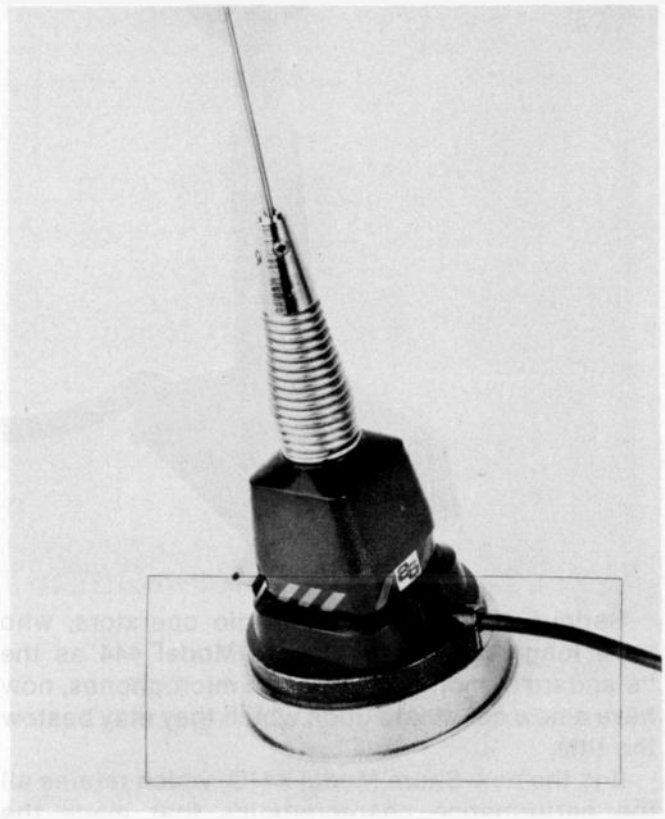
The DuoFone-16 comes in beige housing, 3-11/16 x 8-5/8 x 9-13/16" and is FCC approved. (It's single-line installation only, not for party or multi-line use.)

Mark number 63 on Reader Service Card.

MAGNET BASE ADDS VERSATILITY

Antenna Specialists' new M-2000 Super Scorpion mobile CB antenna has been given a double life with the addition of a heavy duty accessory magnet mount, model ASC-2003. The new mount is designed to accept the entire coil, spring and whip assembly of a Super Scorpion by means of the antenna's patented Leverlok™ assembly built into the Super Scorpion coil housing. The unit is supplied with 17 feet of RG-58U cable and standard PL-259 radio connector. The magnet accessory permits multiple applications from a single antenna without the additional cost of purchasing two complete antennas; the M-2000 may be mounted permanently on the trunk or roof of one vehicle, using the magnet mount for other vehicles used less frequently such as a pick-up truck, van or camper. The M-2000 Scorpion is a high performance mobile CB antenna featuring a full 60" radiating surface for maximum talk power; stainless steel shock spring and 17-7PH stainless steel tapered whip. Additional information may be obtained locally from Antenna Specialists Co. representatives and distributors or write to: The Antenna Specialists Co., 12435 Euclid Ave., Cleveland, OH 44106.

Mark number 62 on Reader Service Card.



INTRODUCED BY PRESIDENT

"The professional drivers' choice" is the billing given a new President Citizens Band Radio, according to an announcement by American Radio Corporation. Designated the AR 711, the new radio was designed and built precisely to the specifications of truckers and other professional users.

Among the features built into the AR 711 as a result of research with truckers and other professionals are: a noise-cancelling microphone with an extra-long coil which extends to 10 feet, a 4" external speaker with mounting bracket and 5-foot cable, instant select Channel 9 and 19 switches, automotive protective knobs and Hi-Cut tone switch. The AR 711 also carries the President two year full warranty.

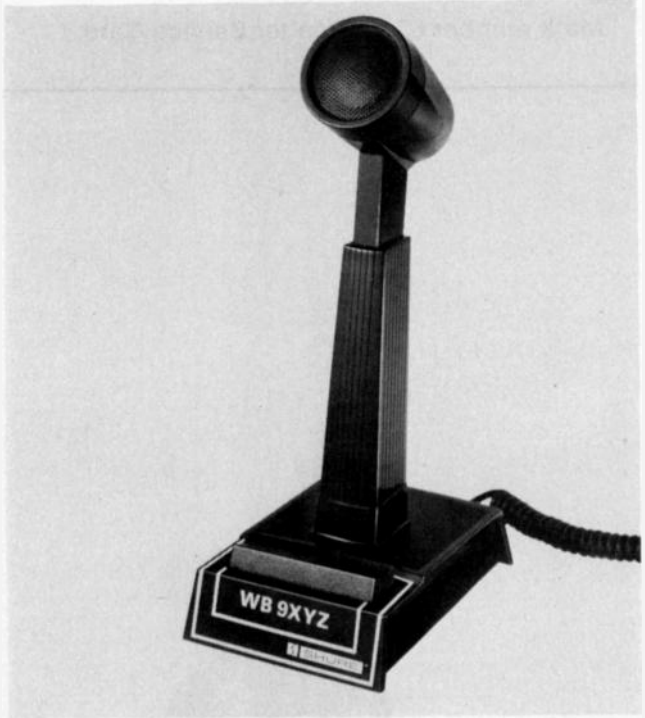
Other features include mike gain, RF gain, ANL/NB, "S"/RF meter, digital channel indicator, TX and RX indicators, positive/negative ground, automatic modulation control, PA and external

speaker jacks and plug-in DC power cord, among others.

It's from American Radio Corporation, 6330 Castleplace Dr., Indianapolis, IN 46250.

Mark number 56 on Reader Service Card.

NEW SHURE MODEL 444D FIXED-STATION MICROPHONE



Serious CB and amateur radio operators, who have long regarded the Shure Model 444 as the "standard" among fixed-station microphones, now have a new candidate upon which they may bestow the title.

It is the new Shure Model 444D, which retains all the performance characteristics that made the Model 444 popular, but also offers added features amateurs will find especially appealing.

For one, the Model 444D has a new impedance selector switch located on the bottom of the base, which allows selecting either high or low impedance operation. This feature significantly increases the 444D's compatibility with existing fixed-station equipment.

A second easy-to-use slide switch is provided for switching between normal or VOX operation. These new convenience features join the unit's easy-to-use, momentary or locking, push-to-talk switch bar, which actuates the microphone and an external relay or control circuit with fingertip action.

Other added features of the Model 444D are a coiled cable, the availability of a free, personalized nameplate imprinted with an amateur's station call letters, and a new wiring guide with instructions for wiring the microphone to major brands of ham equipment.

Field-proved features retained in the design of the new Model 444D include a rugged, CONTROLLED MAGNETIC® microphone element, speech response tailored for maximum intelligibility, height adjustment for operator comfort and a tough, ARMO-DUR® case that is impervious to rust and deterioration.

For more information, write: Shure Brothers Inc., 222 Hartrey Avenue, Evanston, Illinois 60204.

Mark number 51 on Reader Service Card.

TOMCATTIN' WITH TOMCAT!

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

It seems a puzzlement to some readers how or why so many people fault the FCC itself for many of the "problems" which have come to face CB radio; problems ranging from users who disregard the FCC's operating rules, to manufacturers and dealers who have had serious financial problems or who have folded entirely, to the lukewarm reception given to most recent FCC proposals to modify the CB service.

People point out that the FCC *did* give the CB service 17 "new" channels (Channels 24 to 40) at a time when users wanted and said that they needed them, and more recently they proposed giving Sidebanders a special group of exclusive frequencies and operating considerations in the long requested Sideband sub-service which *might* have been (hopefully) established just above Channel 40 (between 27.405 and 27.540 MHz). The question being: given these considerations, how does the FCC come out as the *bad guys?* It appears that they might well be the innocent victims of a general public malaise concerning bureaucratic agencies when, in actual fact, they've really been trying hard to do a jolly good job of things. Well, maybe on the surface it appears that way but if you lift up the edges and peek underneath it's quite a different story.

You can't overlook more than 15 years (1959 to 1974) of total apathy toward the CB service, years during which a strict, inflexible, unrealistic, and absolutely unsuitable set of CB operating rules were imposed upon CB users. The only changes made in the rules were when they were "tightened up" to further restrict the things one could do with the little 4-watt mini-transmitters. You can't overlook the FCC's harassment of CB operators and the FCC's relentless nit-picking over relatively insignificant "rule infractions." You certainly can't ignore the illegal "license fees" they charged CB'ers a few years ago (never bothering to return the illegally collected fees even though they were supposed to do so), plus the lies in which the agency has been caught, the false starts, broken promises, the decade it took to get them to recognize Channel 9 for a specific purpose. Actually one could devote pages to this litany of FCC actions and inactions which have gone by the boards and now make up the overview of the agency in regard to the CB service.

Specifically, in regard to its two actions of supposed "aid" to the CB service, one can and must view these separately and in greater detail. The first "improvement" (the 17 "new channels"), because of the FCC, was a disaster on the very grandest scale. It made many people come to think that possibly the previous years of apathy and disinterest towards the CB service by the FCC might not have been half as bad as things became when the agency was forced into "discovering" the service about 1974!

Fact is that (no thanks to the FCC) between 1974 and 1976 the CB service really took off, new CB users were packing themselves onto the channels and manufacturers and CB dealers were as busy as one armed archers. The channels were starting to become crowded, Sidebanders were wondering why the FCC refused to acknowledge any benefit to isolating their operations from regular AM transmissions, and for the most part the large mass of users was, in a very real sense, creating their own CB rules and regulations based upon their own needs and preferences—something the FCC had long been either unwilling or unable to do. The very last thing the high-gear CB industry needed was advice or instructions on how to generate sales; the supply of CB gear could barely keep up with the demand for it. At *that* point the FCC suddenly activated after 15 years of being out to lunch.

Let me say that it has usually been a real mess whenever the federal government becomes eager to step in and tinker and tamper with private enterprise, or else compete with it. That's what made the

1979 fuel shortage worse and helped in running up the prices. Federal meddling has done its share in tossing cold water on farmers, truckers, the auto industry, and scores of others engaged in commerce. The GSA's recent "Carson City Silver Dollar" ripoff of the public, when Uncle Sam decided to become a coin dealer, clearly pointed out that our dear old benevolent Uncle is not the best person to put behind the counter in a store!

Even if the CB industry had been in financial trouble, which certainly it wasn't in 1976, the very *last* place it would have gone for advice was Washington. If viewed as if it were a business operation, the federal government would get a very low *D&B* rating—it can't exist within its own budget; it continues to pump billions of dollars into various public projects, programs, and boondoggles which should have been mercifully buried years ago; it is staffed by twice the number of employees it requires; if it were a private corporation it would have ended up in bankruptcy court sometime around 1930 and that would have been the end of it.

So when the government stepped in to "help out" the CB industry and the CB service, you've got a pretty good picture of how things were going to end up. The FCC announced its 17 channel "gift" in late summer of 1976, but also announced that equipment for operating on the new frequencies couldn't be sold until the following January. Right off the bat that was successful in killing all CB sales for the remainder of 1976 (including the Christmas season)—not a bad start!

This was further fortified by the FCC's announcement that new technical standards for equipment would make the older 23-channel equipment outdated and illegal to sell within a relatively short period of time. Dealers had massive inventories of these sets on hand, and whatever they couldn't convince manufacturers to take back in return they were forced to dump at panic prices which barely permitted them to break even (most actually lost money). This chain of events caused many manufacturers to go into financial shock, many dealers to go out of business. A pretty good follow-up to their initial kickoff! Right?

Next, the FCC turned its attention to the public itself, not only increasing its harassment of "rule violators" (most of whom had caused no real damage to anybody or anything) but also embarking upon a major publicity campaign to convince the public that the forthcoming sunspot peak would soon render CB radio all but totally useless. By the time the 40-channel sets were ready for "legal" sale in January of 1977, the number of dealers had been greatly reduced, many manufacturers were in far worse financial condition than they had been only a year earlier, the CB users were debating about the potentials of their future interest in CB because of FCC rules and harassment, and persons who had been considering entering CB became confused about the usefulness of the service because of the FCC's idiotic and untrue scare campaign.

Many folks learned from that lesson to be wary of bureaucrats bearing gifts—some of those who learned are still in the CB industry or operating on the CB frequencies, although the list of dearly departed CB manufacturers and dealers is far longer than those who have remained. Today the price of CB equipment is about the same or only a hair more than it had been in 1976—match that against the prices of just about any other product.

Now, in 1980, in response to requests from Sidebanders to set aside exclusive frequencies for such communications (as has always been done in other radio services), the FCC finally was convinced to "help" again and consider some exclusive frequencies and operating considerations for Sidebanders. Although most operators you might speak to have long been enthusiastic about such things, the actual number of Sidebanders who devoted time and effort to convincing the FCC to even think about it was relatively small—the FCC's track record with Sidebanders did not inspire them to bother writing to their friendly Uncle on the banks of the Potomac. CB manufacturers and dealers immediately braced themselves for the FCC's pulling the trigger on the other barrel of the shotgun—they're still picking out the pellets from the last blast!

Manufacturers seem to be genuinely afraid of any additional FCC aid in "helping the CB situation," while dealers are either indifferent, or mildly skeptical that anything the FCC does at this point could help their efforts. The FCC, for its part, started stalling and inching away from some of its early announced ambitious plans for the proposed Sideband service. As of July, the idea of granting Sidebanders special licenses and exclusive operating considerations has been scrapped! Maybe in the future it could all boil down to simply adding 130 kHz worth of frequency space above Channel 40, saying that only Sidebanders can use it, and then letting everybody on all channels, from Channel 1 right on up—AM and SSB—but forget skip and all of the other things which had originally been considered for Sidebanders operating with special test-acquired licenses above 27.405 MHz (Channel 40), and which had been requested by

those within the Sideband community who wanted a separate sub-service, including many Outbanders who had virtually created their own illegal Sideband sub-service after they got tired of the FCC's foot dragging. As the FCC's once-noble intentions finally are self-destructing, I'm starting to get phone calls and letter from CB'ers and industry people pounting out that it's all starting to sound like an instant replay of 1976. Frankly, it does! One more "broken promise" to 11 Meter operators!

To those who feel that maybe the FCC is simply the innocent victim of an unfairly "bad press," or that people in general are unjustifiably down on bureaucrats despite their good efforts, I would say that (insofar as CB is concerned) the FCC has well earned its present position of mistrust, suspicion, and derision from CB users and much of the CB industry. They've spent years earning the image they hold in the minds of the CB public.

When it comes down to it, I don't think that the question is whether CB users and the industry have a right to feel the way they do; the results of FCC action and inaction have brought the FCC what it has richly earned—the chickens coming home to roost, you might say. The *real* question is whether the agency could possible have made such a catastrophe of things as a result of taking actions which they honestly thought would have been of actual benefit to CB radio. To think that it was either by sheer accident, or even *in spite of* heroic efforts to the contrary that the FCC's CB efforts resulted in such a series of calamities is, I'll admit, hard to swallow.

On the other hand, the only alternative deduction you could make is that the whole fiasco was the successful result of a well-planned, deliberate, and successful campaign or plot to deflate CB radio and its associated industry. To accept such a theory you'd have to buy the premise that the FCC is sufficiently motivated, intelligent, creative and coordinated to have conceived such a devilish scheme, and clever enough to pull it off so damned well. Nobody in the world could ever take such an absurd proposition seriously; don't forget how the FCC's "ban" on CB linears (intended to strangle off that industry) created the biggest sales bonanza that industry ever saw!

No, my friends, I see nothing devious here. I think it was really brought about by legitimate FCC bumbling, bungling, meddling, tampering, poor planning, no communication; a total lack of understanding of the CB service, its users and industry; a gross deficiency in knowledge of the business world (or a reckless disregard for whatever knowledge they do have); the agency's long-standing history of bad timing and screwing up most things it touches, coupled with the unfortunate flaw noted in all too many bureaucratic "power pockets," that of trying to be the mouse that roared.

At this juncture, we can only compare the number of CB license applications with what came before. From its "take off" point—when the big CB "boom" began about 5 years ago—the FCC was receiving about a half-million license applications per month. We have come full circle; last May the FCC received 37,000 CB license applications, about the same number it was receiving each month before the CB "boom."

CB reached popularity when its "time was right," and it grew and evolved—like *Topsy*—in a natural process of expansion. It wasn't until an unnatural, outside and alien force attempted to tamper with this natural process ("to help it") that the process was stunted. How many more of these brainstorms and efforts "to help" can we expect from the FCC? How many more can we survive?

TOMcat!

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.

Since we get lots of requests for the addresses of specific overseas operators who have never been listed in this column we would like to remind readers that we run only those cards and addresses which we receive from our readers. Obviously there are hundreds of thousands of overseas operators whose addresses have never been run here before—a goodly percentage of this information is doubtless reposing in the QSL files of our readers. If you've got overseas QSL's and addresses and haven't sent them in to the HELLO SKIPLAND then you're probably sitting on a considerable amount of information which your fellow operators are seeking! Why not give another operator a break and send us those great overseas AD's you're hanging onto? If you're a regular reader of this column you know how useful it has been—please help to make it even more useful! Send in those listings!

A note from R. Harp, SSB-0026, in South Africa says he saw an ad for a Cobra 2000 in a recent issue of *S9* and it was "love at first sight." He hopes to replace his present rig (a Cobra 148-GTL) with the new "apple of his eye" in the near future.

Also from South Africa—an opinion from Leslie Bradshaw, SSB-0023, of Umhlanga Rocks. Leslie says that "the future of CB radio lies in Sideband operation."

Don't forget now—send us those listings for the column; I'm sitting next to a stack of overseas address requests that must contain at least 300 letters! Gimme a break! We need those addresses to help other DX enthusiasts.

OVERSEAS ADDRESSES

TEEN ANGEL, Sandra Reid, 44 Driftwood Dr., Kingston 17, Jamaica, West Indies

SSB-056, Abdullah M. Belal, P.O. Box 19400, Khietan, Kuwait (Arabia)

P-A. Wolfgang, Box 54017, Duisburg, W. Germany 4100

TANGO CHARLIE, Guy, P.O. Box 41, Alleur, Belgium 4430

SSB-048, Marcel Finkel, 176 Rue Du Temple, Paris, France 75003

GAMMA 3, Denis, P.O. Box 17, Nonantola, Italy 41015

Thomas Dachelsen, CH-8932 Mettmenstetten, Switzerland

P-R, Jan, P.O. Box 372, Oostvoorne, Netherlands 32332H

SSB-080, Rino, Box 27, 6906 Lugano, Switzerland

Paul, P.O. Box 19, Esneux, Belgium, 4050

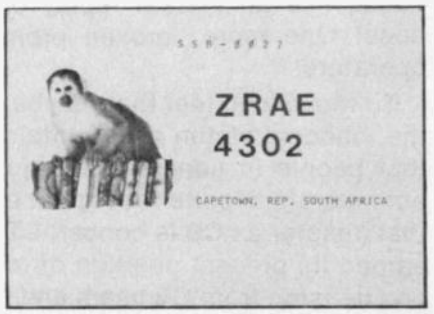
O-B, Otto, Dorpel 17, Eyedelstedt, W. Germany 2847

Franz, P.O. Box 4101, Nurnberg, W. Germany 8500

B-466, Nick, P.O. Box 28, Alexandoupolis, Greece

SSB-049, Mohammed Bassa, P.O. Box 3850, Durban 4000, Natal, South Africa

ROMEO CHARLIE 46, Ragnar, P.O. Box 19106, Gothenburg 40012, Sweden (collects stamps)



UNIT 777, David Sommerbell, P.O. Box 296, Kingston, Jamaica

SSB-028, Alex, P.O. Box 76563, Caracas 1070, Venezuela

UNIT 075, Jogn, P.O. Box 162, 4530 AD Terneuzen, Netherlands

SW-1832, Wilson, P.O. Box 1, 3870 Heers, Belgium

UN-200, Oiva Pirjola, Ryydynkatu 64, SF-33400 Tampere 40, Finland

SSB-052, Wilhelm Johannes, Sekip L-4, Yogyakarta, Indonesia

BOXER, P.O. Box 3178, 3003 AD Rotterdam, Netherlands

UNIT 1900, Joey, Atlantis, Carlton Gap, Brighton, St. Michael, Barbados, West Indies

SSB-0532, Michel Tremeau, 42 Rue Felicie, 92230 Gennevilliers, France

UNIT 45, Susan Hutchins, CMR Box 4573, APO New York 09109

TUG BOAT, Ben, Postbus 3011, 3130 CA Vlaardingen, Netherlands

SSB-0027, Anne, P.O. Box 1966, Capetown 8000, Rep. of South Africa

Y-Z, Alain Faure, 13 Avenue du Vercors, 38240 Meylan, France

SSB-69B, Harry, Postbox 2664, D-6750 Kaiserslautern, Germany

SSB-0243, E. J. Malligan, P.O. Box 78, Croydon Park, Sydney, N.S.W., Australia 2133

SWS-43, Ted, P.O. Box 78, Croydon Park, Sydney, N.S.W., Australia 2133

(continued on p. 62)

THE MONITOR POST

RICK MASLAU/KNY2GL SCANS THE CHANNELS

YOUR RIGHT TO LISTEN

Scanners, by their very nature, have been the subject of some amount of controversy; before scanners arrived on the scene more than 10 years ago there appeared to be no controversy concerning the tunable receivers which were available to cover the exact same frequency bands.

The controversy centers around what citizens of this country should and should not be permitted to hear going out over the public airwaves. There are those persons who would restrict and limit your right to freely monitor public safety frequencies, citing all manner of reasons for their position. Primarily the groups most often heard from are some law enforcement agencies who have said that "well, you never really know who's listening to those scanners and hearing what we're saying." What *are* they saying, anyway?

I should point out that many law enforcement agencies don't feel that way—one police chief was once quoted in the press as having said "We'd like to see one in every home." A spokesman for the large Detroit Police Department was quoted in the same story as taking the position, "If the citizens listen, they know what we're paid for." The Indianapolis Chief of Police once commented: "I believe strongly an informed citizen is our best ally. By listening, citizens appreciate many of the problems and complexities with which the police must work daily."

It's true that a great many law enforcement officials recognize that their job is made easier when large segments of the public can be counted upon to understand their functions and their problems. Or, as one Communications Officer told me, "We've got nothing to hide from the public—we don't like to lose sight of the fact that we are public employees, that means the public is *our boss* and we are always pleased to see that *the boss* sees how well we're doing our job. And, as it turns out, we are using radio frequencies which are a natural resource and are therefore *owned* by the public."

And yes, there have been a few isolated cases where scanners have been misused in conjunction with some anti-social act. When weighed against the large number which have been in the hands of the public for so many years, the incidence of those who would misuse the devices is piddling, indeed. There are a higher percentage of hammers, axes, tire-irons and crowbars misused for anti-social purposes every month than all the cases of such scanner use for the past 10 years! Anything has the potential of being misused by someone seeking to do so, and a scanner has a far lower potential than lots of other things with which we come into daily contact. The majority of scanner owners are either avid hobbyists, police/fire buffs, volunteer fire and ambulance crews, off-duty law-enforcement officers, or simply citizens interested in knowing what's going on around them. The few rotten apples are scattered far afield.

Enter upon the scene, Motorola Communications and Electronics, a major supplier of electronics equipment to law enforcement agencies. About a year ago they began running a 2-page ad in several consumer oriented magazines which was blatantly anti-scanner and looked as if it might have been geared to inflame the very worst fears and paranoia of law enforcement officials. The ad suggested that maybe public safety communications are just "too public." The text of the ad went on to extoll the advantages of having communications "totally unintelligible to unauthorized listeners." A large photo accompanying the ad depicted some rather unkempt persons playing cards, smoking cigarettes, drinking coffee and some colorless liquid (perhaps water) and pointing to a scanner which looks a little bit like a worked-over *Bearcat*. No caption is offered with the photo—it is for the viewer to decide if the photo represents a Motorola sales meeting, or the inference that people who smoke, play cards, and drink coffee and other beverages are (by their very nature) the kind of folks who should somehow be disenfranchised from being able to freely listen to the communications of agencies supported by their taxes.

I suspect you may have realized that there was a bottom line to the ad; you were right. The point of the ad was that—well, er, y'see—Motorola would *very* much like to convince law enforcement agencies that they just can't operate one more day without the benefits of some electronic doodad they happen to have for sale "using highly sophisticated digital scrambling techniques." You knew it all along, didn't you? Motorola's ad did not take any position whatsoever regarding the public's right to monitor the airwaves, to hear public employees earning their living, or to wonder what it was that Motorola wants public agencies to hide from their employers. *(continued)*

The whole idea of the ad is to depict scanner owners in general as a pack of thugs to the point where large amounts of public funds (that's *our* bucks, gang) could be appropriated for purchasing Motorola's scrambling gizmos. Apparently, after some protests relating to this sleazy and cheap shot, Motorola decided to withdraw the ad. It was far below the level of Motorola's usually tasteful and attractive approach to selling their products.

For some reason, a similar ad campaign has again been begun by Motorola. It is as disgusting a depiction as ever, giving the same false image of scanner owners as low-life types who are probably up to no good. It is the type of bigoted foaming-at-the-mouth approach which *could,* if left to continue and grow, develop into a witchhunt which might lead to laws which would severely regulate your right to buy and/or use a scanner! As a scanner owner, I don't like being depicted in this manner and I doubt that you do either! I don't want one *more* lid of *supposed* secrecy hammered in between me and those persons who are putting the food on their tables with money generated by the taxes which are so copiously given by you and me!

What I suggest you do is help get this ridiculous ad campaign squashed once and for all before it goes any further. Drop a letter or card to William Weisz, Vice Chairman, Motorola, Inc., 1303 East Algonquin Rd., Schaumburg, IL 60196, telling him that his company's depiction of scanner owners is incorrect and despicable, and that Motorola's current ad campaign for their Model DVP scrambler must be withdrawn immediately. It might not hurt for you to remind Mr. Weisz that you are an electronics comsumer and also an FCC licensee, who will probably at some time in the future be faced with the opportunity of considering the purchase of Motorola equipment; so you hope that they will consequently return the level of their advertising to the high quality for which Motorola has so long been noted, and, in the process, stop characterizing you as a criminal.

At the present time, you are not restricted by any federal regulation whatsoever from listening, for your own personal information, to anything transmitted over the airwaves—that's the way things are in a democracy. Certain local laws already exist which reflect a suspicion of scanner owners and restrict uses of scanners in mobile units; there are those who question the constitutionality of such restrictive statutes since they exceed the federal government's authority. Nevertheless these restrictive regulations *are* "on the books" and in order to knock them over it would take lots of time and money. How would you like to see these laws "expanded" to include home scanner use? How big a step would it be to increase the scope of such regulations from where they are now (without any FCC attempts to get local governments to revoke them)? Let them keep calling us crooks long enough and watch what will happen!

If you're a scanner enthusiast, it is important to secure your rights, to nip this downgrading and denigrating of scanner owners before they're successful in convincing everybody that we are mostly bank robbers, coffee drinkers, or *worse.* I urge you to write to Motorola *without fail,* and to do it as soon as possible!

GENERAL MOBILE RADIO SERVICE RULES

The FCC has revised the General Mobile Radio Service (GMRS) rules to implement system licensing, enabling a group of intercommunicating stations to be licensed under a single authorization.

GMRS is one of the personal radio services, authorizing business and personal communications between 460 and 470 MHz.

Licensing procedures in the GMRS traditionally have been similar to those used in the other Land Mobile Radio Services (LMRS), but the Commission adopted system licensing for other LMRS on May 1, 1979.

Under new procedures an applicant has to file only one application form instead of one form for each station in a radio system. Having only one call sign in a system simplifies station identification requirements, the commission said.

The Commission also eased the requirements that licensees in GMRS provide geographic coordinates for some control stations. New Section 95.15(a)(8) requires that applicants for a system license supply geographic coordinates for only those control stations with antennas more than 6.1 meters high and transmitting with more than 5 watts.

The Commission will now accept applications for new and modified GMRS licenses prepared under the new procedures. They said that to achieve an orderly changeover, it will also accept applications prepared under existing procedures until Oct. 30, although the proposed stations do qualify for system licensing.

WHEN THE WALKIE TALKIES TALKED

On May 28, 1980, the U.S. Park Police informed the FCC office in Hyattsville, Maryland, that $20,000 worth of equipment was stolen from a construction site in Washington, D.C. Among the stolen equipment were ten business band (43.04 MHz) walkie-talkies which the Park Police reported were apparently being operated by the unlicensed individuals who stole them, causing interference to normal radio services.

On May 29, 1980, FCC engineers monitored the unauthorized operation and were able to pinpoint the source to a house located in N.E. Washington, D.C.

The Park Police executed a search warrant for the residence in question the same day, recovering four of the ten walkie-talkies which were stolen and being illegally used. There has been no further activity since one individual was arrested for possession of the stolen equipment.

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.

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.

NEW SIDEBAND RADIO

The addition of the model AR 144 40-channel AM/SSB Mobile Citizens Band radio to the President line of CB products has been announced by Jim Andrews, Vice President of Sales, American Radio Corporation.

"The new President AR 144 is a radio for serious single sideband CB'ers,"said Andrews, "but it's priced for those who are considering the step up from conventional AM CB radios into the exciting world of Sideband."

Among the features of the new AR 144 cited by Andrews'in addition to the radio's highly styled cabinet are new highly sensitive President circuitry, NB/ANL, channel 9 priority, Brite-Dim, mode and PA-CB switches, and mike gain, RF gain and clarifier controls. Other features include "S"/RF Meter, digital channel indicator, TX/RX, mode and channel 9 indicators, automatic modulation control, detachable dynamic microphone, positive/negative ground, PA and external speaker jacks and plug-in DC power cord. The AR 144 carries the President two-year full warranty, "the strongest warranty in the CB industry," according to Andrews.

"In light of the much-publicized increase of interest in Sideband among serious communicators on 27 MHz, we believe that the timing of this introduction is most appropriate, and we expect the AR 144 to generate increased popularity of the President Sideband line," Andrews concluded.

The President AR 144 is available for immediate shipment. It's from American Radio, 6330 Castleplace Dr., Indianapolis, IN 46250.

THE SIDEBANDER'S HALL OF FAME

We got to noticing that, after about 15 years operating Sideband, we could recognize several basic types of Sideband people. My guess is that every local Sideband club or group of operators has at least one member who roughly (or maybe exactly) fits a certain Sideband group personality pattern. What's more, these people even look alike from local club to local club.

Don't believe me? I've put together a little "Sidebanders' Hall of Fame" comprising some of these people. See if I'm right. Take any local club or group of 50 or more Sidebanders and I'll bet that you'll recognize some of those in my "Hall of Fame" as being members of that group.

For instance, we have the "Student." This guy knows practically everything from Ohms Law to how to solder a coax connector without burning his fingers. He can recite Part 95, chapter and verse, from memory. Carries a little calculator in his shirt pocket, will never hesitate to begin using it while you're talking to him if he thinks he can prove your figures are wrong. Favorite expressions: "Negative," and "Question:..." Everybody hates him but can't tell him to buzz off since he's still the only guy in the club that knows how to *slide* a rig so that it still works a week later. Rumor has it he's a discredited ham licensee.

"The Student"

And what about "Old Numero Uno," better known as the group's founder and the only guy who was brave enough amongst the original members to accept membership number "1." Quiet and retiring these days, club members look upon him with a certain amount of fond and benign reverence; are delighted when he QSO's them over the air; new members especially regard him with sincere and overwhelming awe. There's something definitely saintly about this guy; ask any member about it. Only problem is that "Old Numero Uno" himself long ago grew tired of the fuss and being given all the "special honors;" really wishes people would simply treat him as "one of the gang." They never will.

"Old Numero Uno"

Let's not forget "The Monitor." Was a ham operator back in the 1930's. Regularly reads off a list of Sideband operators whose on the air activities

For Information About Our Advertisers . . .

"The Monitor"

have not only come under his close scrutiny but have managed to fall into his bad graces. Those who do not fully live up to his strict high standards are not simply corrected, they are expected to bear up under a 20 minute on-the-air fire and brimstone harangue. Seems to be on the side 24-hours a day with receivers tuned to all area Sideband frequencies; will instantly break in on any contact if he hears anything he doesn't like. Several times people have tried to tell him to get lost but that has only made things all the worse. At one time several club members had suggested taking up a collection to send him on an extended vacation somewhere—anywhere—at least 1,000 miles away.

And isn't there a member who is fully entitled to the monicker "The Source?" From deep within the very roots of CB he emerged—has been around since it all began. Never stops talking about his first rig, a Lafayette HE-15, and one of those funny "W" callsigns the FCC used to assign to CB'ers. Has been a member of no less than 12 separate and distinct *generations* of Sideband clubs which have risen and fallen since he first got on Sideband; at least a few of those clubs were so short-lived and go so far back into antiquity that he's the only remaining member still on the air. He also seems to have an endless supply of number blocks from which he can still assign numbers from no less than 75 unknown, extinct, or otherwise defunct and inactive Sideband clubs and groups—if you don't request him to furnish you with same he'll gladly volunteer or perhaps even insist that you avail yourself of his services; and he's assigning *all* the real doozies—NRA numbers, HFI numbers, ARC numbers, NASA numbers, SBA numbers, USA numbers—if it's a group which went west he'll surely be able to make you a part of it all in short order. You are not supposed to ask why you might wish to do so at this point in the scheme of things; he's a nice fella and the gang humors him—most folks have received about 7 to 9 different numbers in each one of the clubs he "represents"—haven't got the heart to tell him that he just gave him one of those numbers only the previous month. At all group gatherings he wears two long "ladders" of plastic badges in many colors displaying all manner of his exotic and extinct club numbers. By the way, his love for Sideband did *not* cause him to bother writing to the FCC to support RM-3317, he was too busy. Didn't even know about the whole thing—too busy to read *S9*. Is he a member of the SSB Network? Nah—too busy, and he already belongs to a lot of "really great" groups anyway.

Another member encountered is "The Foreigner." This fellow showed up a few months ago in a beat-up old car with out of state license plates. All anybody knows about him is that he's running a mobile FT-101-E. Seldom talks to the local operators but when the skip is rolling towards the south at least a dozen guys in Mexico and Colombia are always trying to shout him. Nobody knows for sure what he does for a living. Not much else to say about him; a strange sort of guy. Main reason the club tolerates him is that before he joined the club only 20 or 30 people came to the weekly coffee breaks—after he joined more than 200 showed up regularly. For someone who doesn't say much he has a lot of friends.

"The Foreigner"

For sure every club has its own "Mr. Fixit." This guy is so dumb that he can't add up a couple of threes, yet he's ready to key up to give anybody who will listen an instant on-the-air analysis of the many things wrong with their rig. He hasn't come across a rig yet which couldn't be made to work better after he fixed it. A few weeks ago he convinced some operator, who obviously didn't know any better, to let him "modify and peak up" his new rig. Yesterday the local service shop manager had to send the rig back to the factory—it had a blown final, the IF's were misaligned, the clarifier had been assaulted with what might have been a heavy blunt object in an attempt to unlock it, and the antenna

"The Source"

"Mr. Fixit"

loading circuitry had been jammed so that the set could only operate with a 97 ohm load. Moveover, the front panel switch which used to say "CB/PA" was now adorned with a little piece of *Band-Aid* upon which was inscribed "XRGTH" (or something like that) in ball point pen—however the switch was no longer connected to anything inside the rig. "Mr. Fixit" has been on frequency all night telling person after person how they should let him work on their rigs so he can make them sound as good as the last one he "customized."

"The Brewmaster"

No club could possibly exist without "The Brewmaster." Her name was earned because she makes coffee and serves vile homemade spicecake at all club functions. Loves to kid around with the guys on frequency, and since she is on frequency without interruption between 7 AM and 2 AM the following morning you can be pretty certain of having her as a kibitzer in any QSO you might try to have with someone. Has a voice like a steam calliope and a hoarse laugh that will pop a hole in your speaker cone if you don't turn the gain down as soon as you spot her voice. She has fully mastered the art of talking on the rig while simultaneously screaming at her brats. Someone said that her husband is also a member of the club but nobody recalls hearing him on the air since about 1975 or '76. He's sorry he bought her the 30-cup coffee urn.

Let's not overlook the "Prospective Member." Came to the last club meeting because on the first day he got his new Sideband rig someone broke in on his QSO with his wife and invited him to the meeting. At the meeting when he was asked to introduce himself to the group, he gave a CB handle. This provoked an immediate hysterical outburst of laughing, whistling, foot stomping, cat calls, and applause. He sat quietly through the entire meeting, then said goodnight to everyone and thanked them for inviting him. He never returned but someone said they heard him the other day running Sideband on Channel 19. What a dope.

"Prospective Member"

Any similarity to actual Sidebanders, talking or on the side, is purely coincidental.

CB RADIO/S9 FIX'M-UP

TAKE ADVANTAGE OF THESE USEFUL FREE SERVICES:

EVERYONE FOR A.M. "UNIT NUMBERS"?

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

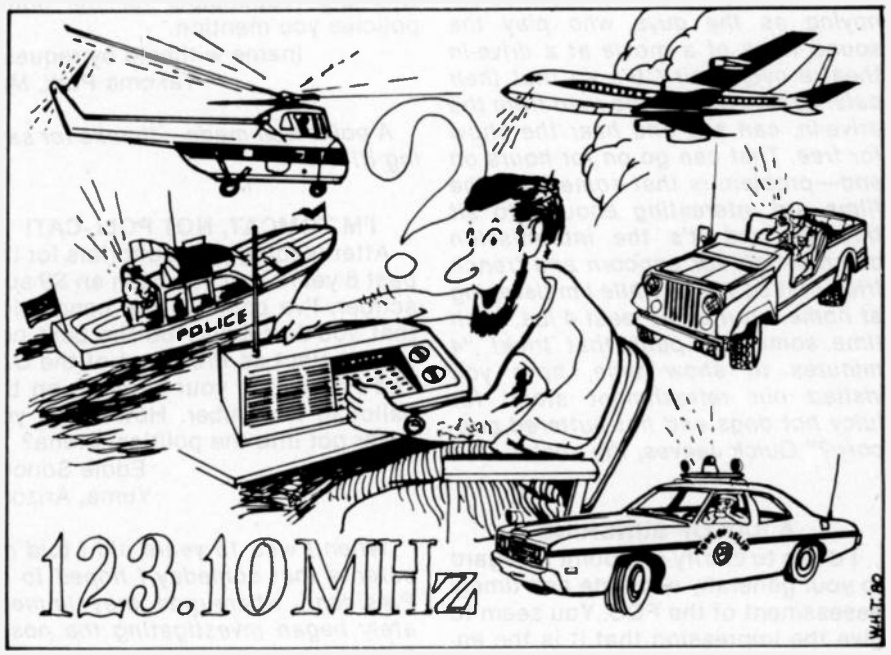
SIDEBAND ID NUMBERS?

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

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.



SEARCH FOR THAT FREQUENCY

Speak of exciting listening, I've been monitoring 123.10 MHz on my aero band scanner and it's a goldmine of gutsy activity. Being the search and rescue frequency, I can hear base, aircraft and ground mobile communications of the police, sheriff, military services, national guard, Civil Air Patrol, and all sorts of other interesting folks there! It's probably the only communications frequency to accomodate such a wide-based range of macho stations. Tell your readers to listen there!

Sonny Keiser, KNJ2AF,
Red Bank, N.J.

I agree, when there's a search and rescue on or a downed aircraft, the frequency does buzz away with an amazing number of stations from a wide range of sources. And, by the way, if you ever hear a ground mobile station on 123.10 MHz with the call-sign KM-4973—that's me! I'm sure I'm the only station on VHF aero band with an actual QSL card!

SCOOPING THE LOCALS

A recent opportunity to listen to the "scanner bands" on a tunable VHF receiver has clued me in that there's much of interest to hear on the communications frequencies used by those stations other than in the police, fire, and other popular "public safety" services—I mean forestry, business, industrial, taxi, bus, manufacturers, highway maintenance, etc., and others not shown in any publications. My scanner, for one, can be programmed to receive 50 channels—far more than I can "fill" up even if I programmed into it all local state, federal, county and local government agency frequencies, including those which are hardly ever used. Can I get some data on listings within monitoring range which can tune me in on some of these other stations?

THORNY THEODORE,
Treynor, Iowa

The only known source of this type of frequency information consists of a special Local Monitoring Report showing the licensee names and operating frequencies of 10 scommunications stations using scanner frequencies, including business, industrial, etc. (in fact, can be anything except police and fire). The report can be specially prepared for any local area in the United States for $10 by CRB Research, P.O. Box 56, Commack, NY 11725. They select the specific stations to be included and guarantee they'll find you 10 such stations in your listening area no matter how far out in the boonies you live! Enclose a self-addressed stamped letter with your request, and please mention the name of your county.

THE BIG BROADCAST OF 1980?

In your July issue's CB PIONEERS' column Judy told about the 1960's "big broadcast" where a CB pest was finally given his lumps by persons unknown "constructing" a fake interview (joke questions "answered" by selected words and phrases of the obnoxious operator) and then run out over the air for all to hear. We've got a related but not quite as humorous situation in my area of Chicago. Some turkey records the entire communications of several people operating on CB, then later plays them back over the air in order to walk all over other contacts. Naturally the people who are trying to use the channel are enraged when this happens, and they blame it on the people

whose voices they hear (via recording, although they think it's "live" and deliberately being done by those people). I heard my own complete contact with a friend (from several weeks earlier) used to totally wipe out some operator's attempt at having a conversation. It's a pretty sleazy trick and until everybody finally realized what was being done it made for some short tempers. Now we try to ignore it.

SWEET
Chicago, Ill.

Dumb stunts are nothing new on CB, and your problem isn't 25% as annoying as the guys who play the sound track of a movie at a drive-in theatre over their CB's so that their pals, parked across the road from the drive-in, can see and hear the show for free. That can go on for hours on end—problem is that sometimes the films are interesting enough to sit through, and it's the intermission commercials for popcorn and french fries that do me in while I'm listening at home. I put on at least 4 lbs. each time some guy pulls that trick! "4 minutes to show time, have you visited our refreshment stand for juicy hot dogs and hot buttered popcorn?" Quick Jeeves, the scale!

A RAY OF SUNSHINE

I'd like to clarify one point in regard to your generally accurate and timely assessment of the FCC. You seem to give the impression that it is the entire agency which has made such a mess of things in CB and other radio services. This is not really fair since the policies and decisions propagating from the FCC are within the sole domain of a relatively small number of people "at the top," including department and division heads, regional supervisors, and the Commissioners themselves. And while it's true that there are some genuine idiots holding down lower echelon positions, the vast majority of the average FCC employees are just poor schnooks trying to eke out a living. They are in no way responsible for FCC decisions, regulations, politics, and attitudes and, in fact, have disagreed with many things they see going on within the agency. The working conditions for the average FCC employee are far from great, the pay isn't good, the office policies are depressing, and most employees feel as if they are being treated like they were just so much cattle. While your analyses of many FCC problems have certainly hit the target, you imply that all FCC employees are part of the problems. You'd be surprised at the number of "outbanders," "skip workers," and other "illegals" who are employed by the FCC in clerical and other lower echelon jobs. Some of these people process the paperwork relating to FCC violators and as soon as quitting time comes they rush home to see if there's any good skip rolling in! Keep up your direct and badly needed opinions on FCC policies, they've made you a hero with many "real" people inside the FCC, but please let your readers know that it is only a very small percentage of the people at the FCC who are responsible for the dumb policies you mention.

(name withheld by request)
Takoma Park, Md.

A point well made—thanks for saying it!

I'M TOMCAT, NOT POLL-CAT!

After reading your editorials for the past 8 years that I've been an *S9* subscriber, I've come to the conclusion that you'd probably be the best person to elect as President of the U.S. and I'm writing your name in on the ballot in November. How come you never got into the political arena?

Eddie Sonora,
Yuma, Arizona

When I was 15 years old I told my parents that someday I hoped to be President, whereupon they immediately began investigating the possibilities of changing their names and moving to Liechtenstein. After that I sort of cooled to the idea. As it turns out, in both the 1976 and the current presidential campaigns I was asked to become part of the speechwriting team for a candidate during the state primaries; someone suggested that there is a strong possibility that it was one of the opposing candidates who had asked. While I appreciate your vote, my XYL reports that if it's a trend she'll be applying for Swiss citizenship.

**AT LONG LAST,
HELP IS ON THE WAY!**

I thought you'd like to know that GE is embarking on a major campaign to promote their newest idea which is the HELP emergency communications system. This is a small, inexpensive hand-held CB transceiver intended for mobile emergency use. It is powered from the vehicle's cigar lighter, has an antenna which is stowed in the set's carrying case, and the unit doesn't have to be installed when not in use—you're supposed to store it under the seat or in the car's trunk. As a long time *S9* reader this has a vaguely familiar sound to it; didn't *S9* once run a story on this many years ago? I'd bet on it!

Joseph N. Bunker, Sr.,
Middletown, N.J.

And you'd win your bet, Bunky. This great "new" idea bears a certain uncanny resemblance (without their giving credit whatsoever) to something we ran in our January, 1967 issue (page 9). Yes, in my January '67 editorial I tossed out the thought that "the type of CB rig which might have universal appeal has not yet been put on the market." The editorial went on to say that:

"Many people would like to have a CB rig in the car (even if only for emergencies) but are faced with the problem of drilling and cutting the family chariot . . . [so] . . . someone who could come up with an inexpensive . . . rig which could be sold to these people would be one way to break through the barrier of general public acceptance of CB . . . Our idea is the HELPee-Talkie, an emergency CB rig which could be put into every car without an installation. The unit is a transceiver which is stored away in the trunk or glove compartment when not in use. To solve the problem of the rig's batteries wasting away while the set is stored . . . it is designed . . . [to take] . . . its needed power right from the vehicle's 12 volt supply (via the cigar lighter plug-in). When the car breaks down you unpack the unit, plug it in, and dig up somebody to come and help you out. So here's what you'll have: a . . . transmitter and receiver in a hand-held design — maybe some audio boost in the transmitter. It has a . . . whip antenna and a 5 foot power cord. I don't think that there's a motorist . . . that wouldn't spend a reasonable amount to have something like this available and we wonder if some sharp manufacturer will investigate the possibilities of putting this type of unit on the market."

Unquote from S9 of January, 1967, almost 14 years ago! New idea? Makes you sort of wonder if some bright $100,000 per year man at GE had only to thumb through his file of old S9's before he went running into the sales meeting to announce his idea about how to break through the barriers, etc., etc. Well, he earned his Christmas bonus this year—his mama didn't raise any fools! S9 salutes GE on "their new concept."

A BARGAIN IS A BARGAIN

What about those so-called "discount" houses which mass market everything from CB to stereo at "incredible" prices? I haven't found their prices to be particularly incredible, and their offers to "match or meet" lower prices from other dealers have so many conditions that they're almost meaningless. What are your thoughts?

E. L. Cummings,
Salt Lake City, Utah

After receiving a considerable number of inquiries such as yours I decided to check out a couple of these places, since all metropolitan areas seem to attract them—and soon realized that most such places go under names such as "Idiot Izzy," "Crazy Elmer," "Fantastic Frank," or the like. That should have been my first clue. Two landline calls to one place asking about a particular model of hand-held scanner produced two different responses as to whether or not the set was in stock, although I'll admit that one of the people I spoke to wasn't quite sure as to what a scanner was. When I went into the store they did have a hand-held scanner, but not the one I specifically asked to see, I asked for one which picked up the VHF aero band (108 to 136 MHz) and they were insisting that the one set they had in stock (covering VHF Lo/Hi bands—30 to 50 and 150 to 174 MHz) was what I needed to buy. First they told me that the set they had was the "new model" which replaced the one I asked for. Then they told me that the set I asked for never existed in the first place. I asked to speak to the manager, and when he arrived to give his expert opinion, it was that the set would pick up the VHF aero band if I just put the proper crystal in it. Basically they'd have told me the set could whistle "Dixie" and dispense Coors if that's what I said I was shopping for. The "incredible" discount price was 7% below "list" price, while the same set could be obtained from between 15% and 25% below "list" at several area communications equipment dealers, none of whom attempted to peddle off a scanner which could not possibly operate on the band specified. I tried the same inquiry at several "discount joints" and, in general, found that their prices were high and their salespeople were uninformed and anxious to make a sale to the extent of trying to blatantly misrepresent the merchandise. I went away from the experience feeling that these places are sleazy fast-buck boiler room operations aimed strictly at the rubes. Y'want stereo gear? Buy at a real audio dealer. Want communications equipment? See your nearest communications equipment specialist!

KILLER'S KISS

Our navigation satellites in the TRANSIT series operate on 149.988 MHz, which is within the range of my scanner and I've always been intrigued with hearing their signals. It's my understanding that considerable reliance is placed on the TRANSIT satellites by the military, and that other satellites have taken over much of the military 2-way communications which used to be sent out over standard high frequency shortwave. If this is true, wouldn't we be smart to be concerned about possible threats to these satellites from jamming stations? One dead carrier could knock out everything!

Don Donagan,
Eureka, Calif.

Being jammed is, I suppose, one possible threat to the effectiveness of a satellite but there are some rather sophisticated anti-jamming devices which have been installed in critical satellites to minimize the possibilities. A far more serious threat would be from the "killer satellites" which the Russians are now testing and which could be used against navigational, communications, research and even spy satellites. By means of laser beams, large jolts of electricity, magnetic fields, and other means both tricky and effective, the Russians hope to be able to destroy any satellite they don't care for. Tests they've made on their own target satellites have shown that the idea works. Our government is seeking to spend $1-billion on a method of zapping the Russian killer satellites; presumably this would involve a fighter-launched multi-stage missile which could kill the Russian satellite before it gets ours. I think technology has far surpassed the point where anybody in the government is seriously worried about the Russians being so quaint as to be sitting there in the Kremlin chucking dead carriers at our satellites.

TARNISHED TINSEL

Well they finally ran the movie "Citizens Band" (a/k/a "Handle With Care") on TV and it was far from being one of the Oscar contenders. Chuck (SSB-55) was fine but seemed to have been snipped up a bit by the censors. Candy Clark was O.K. but also didn't have much of a part. Weren't you in Tinseltown watching them shoot this epic back in 1976? Is that the best they could do?

Sue Covington,
Kenedy, Texas

Under the circumstances it was probably better than it should have been. I was in Marysville, Calif., when they were doing some of the "location" shooting. It was absolute confusion. They were telling media representatives that the script was "secret," but one of the cast members confided in me that the main secret was that the script was incomplete, and what little they did have was in a constant state of major revision. The film's director felt he was shooting Gone With The Wind *or* Apocalypse Now, *spending enormous amounts of time on each piddling little camera shot and tossing lengthy violent temper tantrums when the most insignificant thing went only slightly wrong. The "main star," a nonentity named Paul LeMat, spent much time being temperamental—off by himself brooding as if he were getting ready to play Othello—my impression was that he pictured himself a major international cinema personality. I had spent a number of years in the movie industry and I don't think I had ever before witnessed anything as disorganized or amateurish as I had seen while watching this film being made. If there was anything good at all to be said about the film it was due to several professionals in the cast who were valiantly trying to overcome the pandemonium into which they had been thrust—people like Candy Clark, Chuck Napier, Ed Begley, Alix Elias, and Marcia Rodd. They deserved better, and so did CB radio.*

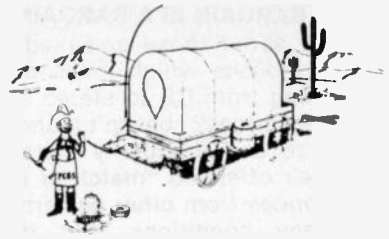
THIS GUY WE LIKE!

I'd like to give you a pat-on-the-back for your magazine. *S9*'s articles and stories are always interesting and informative. But it's your own humorous slant on the things which take place on 11 Meters and in the CB industry which always makes my day. Of all of the publications reaching the 11 Meter reader, *S9* remains the best!

Mark Merkling,
Sideband Specialists 2-Way Radio,
Wheat Ridge, Colorado

In addition to being a useful communications tool, CB is exciting and fun! That's the way we have always approached it here at S9; we have always felt that our pages should reflect the CB service itself.

THE CB PIONEERS' CORNER



By Judy, SSB-99/PCBS-99

Got to thinking the other day about some of the folks we used to know a numbers of years ago in the early daze of CB radio. Some were real characters, and it really seems that, nothwithstanding the feeling of friendship so many recent CB'ers have generated—in the early days of CB it was a different type of camaraderie. Maybe it's because back then there weren't all that many CB'ers (when compared to today), and when you went to a jamboree you saw the same basic group of people that you had seen at every other CB gathering you had attended over the previous few years, and that includes local gatherings or ones 1,000 miles away.

Some of the people who attended most early CB gatherings included a fellow named Everett Decker, who was a New Englander who made plastic name badges—don't know what ever became of Ev, though. Then there was the Rambling Redskin, also with a large assortment of CB goodies such as patches and pins; I know he's still on the jamboree circuit. Then there was the Baer family from Chicago—Mel, "Mom," Chuck, and some other members; they used to take hours to set up their massive array of CB novelties which included everything from badges and pins to decals and QSL cards, all directed at the CB'er.

CB publications were often represented too, *Tomcat* (representing *S9*) was a regular on the jamboree circuit, as was *CB Snoopy* (presently the Publisher and Editor of *7 Hills CB News*)—in those days she was writing a CB column for a CB publication published in Massachusetts—it was called *CB News*. That publication was produced by a colorful character named Art Larrabee who seemed to have vanished into limbo one fine day back in the 1960's—literally! Nobody ever knew what became of him, one story was that he took off in a private airplane towards parts unknown and was never seen again by friends or family! Another regular press representative at all CB gatherings was (and still is) Fred Blackwell of the *CB Voice*—which is still in publication after all these years! Fred attended most of the recent major CB jamborees and I understand that he's organizing a big super-jamboree to be held in January in Florida; we'll have more on that gathering as time goes on.

Speaking of airplanes, I'll never forget the story of the fellow who owned a major CB sales and distribution center in the midwest. I don't think I ever saw this guy completely sober at any of the many jamborees he attended in his private plane. He wasn't really bombed, but he was just lit up enough to cause most people to look at him out of the corner of their eyes and wonder what he was drinking. One time he flew his private plane into an airport near Chicago, rushed to an important meeting in a taxi, and then spent the next few days trying to locate his plane because he forget which airport he landed at!

And how could anybody who regularly attended jamborees ever forget people like Gar Greene of Browning Labs, Ronnie from Tram, old man Mosley from Mosley Antennas who would answer every simple question about his antennas as if he were pitching the Air Force on a multi-million dollar purchase! Does anybody still recall Jack Shea of RCA, Jack Craven when he was with JK Crystals; and a regular too was Pete Kreer (who is still active in 11 Meter matters). And those were the days when Andy Andros of Hy-Gain would take you out the parking lot to give you a personal demonstration of his company's new mobile antenna—a high ranking executive who would spend a good 45 minutes of his time showing a group of only 2 or 3 people a $15 mobile whip!

Pete Robins and the gang were at every jamboree showing the *e.c.i. courier* line of CB equipment. I'll never forget one colorful guy whose name was either Harold or Harry or something along those lines—he was at every single jamboree from Grandfather Mountain in North Carolina to ones in Arizona and Wyoming—every time I saw this guy he was hawking a totally different CB product; one time he was the Sales Manager of a company making CB rigs, next time he was the Vice President of a CB antenna company, then one time he was displaying a line of voice boosters and SWR meters. There was no end to the companies he was with over the years, and each time I saw him he would tell me that he had finally found a company he was going to stay with.

Every night after all of the crowds left (and there were large crowds at 95% of the jamborees) the tired exhibitors would take stock of their displays, throw away all of the accumulated coffee cups and soda cans, and sit there in a dazed state looking at one another while contemplating the crush of the following day. Eventually someone would suggest trying to rejuvenate the group's hoarse voices by locating a local diner and inhaling some apple pie and coffee. A huge exodus then took place while everybody started asking one another if they knew of an area diner serving food which didn't cause instant ptomaine—and after a while the motley crowd ended up dropping day-old Danish crumbs and cold coffee spills all over the place.

But the real beauty of those old time jamborees was the CB'ers themselves, the same ones I mentioned you'd see at all jamborees. Come to think of it, when you realize it was the same hard-core jamboree goers showing up to see the same CB gear on display, and being described by the same salespeople, you can understand that it was like one big family gathering together to socialize and trade CB yarns.

Recent jamborees have not been as well attended (considering the number of licensees in the CB service in the past few years), and there has been a far more hard-sell commercial approach to those who attend by the people with displays. Mostly I think that I most miss the kick I always got out of getting a chance to spot all the old familiar faces in the willing

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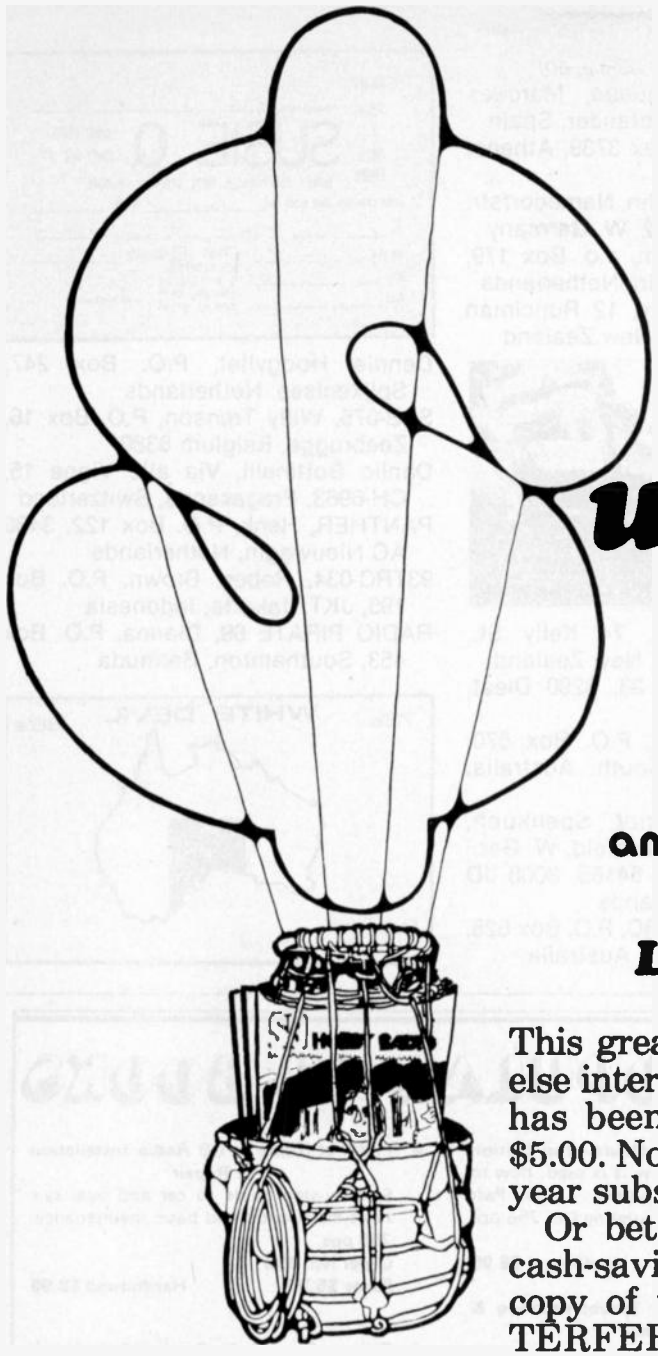

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crowds—I go to lots of jamborees and it looks to me like an entirely new crowd at every one I attend.

CB has come a long way since the early 1960's, we've got PLL's and all sorts of other gadgets, and for the most part they've made things a lot more interesting. But some things haven't changed quite so much for the better; I think the old time CB jamborees were a lot more fun than most of those I've attended over the past two or three years.

SOME OLD TIMERS

"Wild Bill" Washburn, who just celebrated his 78th birthday, is from Mishawaka, Ind. Bill is retired (35 year veteran at a rubber company) and has been around CB since 1964 when they issued him the call KHE0565. These days Bill is mostly on the Sidebands.

In 1961 there was 19Q6679, Ronald Hartgerink. These days he's still activer from his home in Lansing, Mich., as "Wooden Shoes," or also KQA-8130. His original rig was a Heathkit GW-10, later an EICO and a *Laughing-yet* HE-20.

"Wild Bill" Washburn of Indiana, a CB old timer.

Granville Yob, better known as "OLE CASEY," got started as a result of his participation in Scouting. His Boy Scout Council camp was about 50 miles from the homes of his troop (Bethlehem, Pa.) and a relay system was established to send messages back and forth. "OLE CASEY" started out in 1965 as KMG-2134 (still holds that call), he's also a member of the *SSB Network*.

Hello Skipland *(continued from p. 50)*

VULCANO, Juan Aguado, Marcues Hermida 26-8-D, Santander, Spain

SSB-058, Jim, P.O. Box 3739, Athens, Greece

LOK-1, Michael Forduhn, Namedorfstr. 16, 3000 Hanover 72, W. Germany

LIMA-ZOELOE, Willem, p.o. Box 179, 3430 AD Nieuwegein, Netherlands

MS-647, John M. Guy, 12 Runciman Place, Dannevirke, New Zealand

NU-639, Barry Allan, 74 Kelly St., Inglewood, Taanak, New Zealand

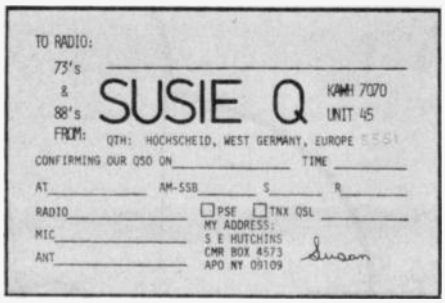
MINERVA, P.O. Box 33, 3290 Diest, Netherlands

WHITE DEVIL, Daryl, P.O. Box 570, Salisbury 5108, South Australia, Australia

BAVARIA 10, Helmut Spenkuch, Eselhof I-10, 8711 Sulzfeld, W. Ger.

UNIT 5965, P.O. Box 54165. 3008 JD Rotterdam, Netherlands

PDC-5, Roger, c/o PDRC, P.O. Box 528, Penrith N.S.W. 2750, Australia



Dennis Hoogvliet, P.O. Box 247, Spijkenisse, Netherlands

SSB-075, Willy Trenson, P.O. Box 16, Zeebrugge, Belgium 8380

Danilo Bottinelli, Via alle Vigne 15, CH-6963, Pregassona, Switzerland

PANTHER, Henk, P.O. Box 122, 3430 AC Nieuwegin, Netherlands

93TRC-034, Robert Brown, P.O. Box 195, JKT, Jakarta, Indonesia

RADIO PIRATE 09, Dianna, P.O. Box 453, Southamton, Bermuda

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WASHINGTON OUTLOOK

WHAT'S HAPPENING AT UNCLE CHARLIES'

NEW RULE PUBLICATIONS ISSUED FOR PERSONAL AND AMATEUR RADIO

To provide the public with copies of the Commission's Rules in separate publications for each individual radio service, the Federal Communications Commission announced today that the following publications are now available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402:

Part 97
Amateur Radio Service
Price: $1.40
Stock No.: 004-000-00357-8

Part 95—Subpart A
General Mobile Radio Service Rules and Regulations
Price: $1.00
Stock No.: 004-000-00340-3

Part 95—Subpart C
Radio Control Radio Service Rules and Regulations
Price: .80*
Stock No.: 004-000-00341-1

Part 95—Subpart D
Citizens Band Radio Services Rules and Regulations
Price: $1.25
Stock No.: 004-000-00356-0

Part 95—Subpart E
Technical Regulations Personal Radio Services
Price: .80*
Stock No.: 004-000-00343-8

*Minimum charge of $1.00 for each mail order

COMMUNICATIONS WITH KOREA

United States Forces in Korea Amateur Radio stations (HL 9) are now authorized to conduct third-party communications, phone patches only, to U.S. Amateur Radio stations from 00:01 Hours December 20, 1979, through 23:59 Hours, January 4, 1980, local time.

Section 97.114 of the FCC rules establishes limits to permissible third-party traffic.

The Amateur Radio Service Rules define third-party traffic as "Amateur radio communication by or under the supervision of the control operator at an Amateur radio station to another Amateur radio station on behalf of anyone other than the control operator."

Messages involving material compensation, either direct or indirect, to a third-party, station licensee or any other person is forbidden, as are all commercial or business communications.

AMATEUR-SATELLITE SERVICE

The Commission has proposed amending Part 97 of the rules to provide for an Amateur-Satellite Service (AMSS).

On February 14, 1973, the FCC amended Part 2 of the rules (Docket 19547) to conform with the radio regulations of the International Telecommunications Union (ITU), as revised by the World Administrative Radio Conference for Space Telecommunications held in Geneva in 1971, creating a new Amateur-Satellite Service. Certain frequencies already allocated to the Amateur Radio Service were designated also for AMSS.

The following October, the Commission issued a Notice of Inquiry requesting comments and suggestions on forming AMSS. However, both before and after creation of AMSS the FCC had authorized operation of amateur stations aboard earth satellites by waiving the general rules for amateur stations.

The FCC pointed out that, generally, all amateur stations and operators would be authorized to operate in AMSS to the extent authorized in their licenses, without any additional authorization. Space operation would be limited to those holders of Amateur Extra Class licenses, who would be authorized to designate any amateur station having a licensed operator to carry out telecommand operations.

In addition, a space station licensee could authorize amateur stations in other countries to conduct telecommand operations subject to the regulations of the country. However, FCC-licensed space stations would have to have the capability to cease transmissions immediately via telecommand operations, the Commission said.

The FCC said it proposed to exempt both space and telecommand stations from station identification requirements, adding that instead of transmitting a call sign information of the type specified in the ITU regulations would have to be filed.

The Commission said it planned to incorporate into the rules ITU regulations calling for space stations to be fitted with devices to ensure immediate cessation. Moreover, all frequency bands allocated to AMSS would be shared with the Amateur Radio Service, and 435-438 MHz would be shared with the Government Radiolocation Service.

The FCC said it was proposing that information filings be submitted every 27 months, with updates about 15 months. Although the first filing period might be waived where necessary, it said, amateur satellites placed in orbit before receiving international sanction might be required to discontinue operations in favor of a previous request, or to avoid interference with other radio services.

USE OF "SCA" TO AID ELECTRONIC NEWS GATHERING CREWS

The FCC has proposed permitting TV broadcast stations to use "SCA" subcarriers on their aural transmitters for the purposes of cuing and coordinating electronic news gathering (ENG) crews in the field.

This use of subcarriers was proposed by Boston Broadcasters, Inc. (BBI) licensee of WCVB-TV, Channel 5, Boston.

Recognizing that there were possibly other worthwhile uses for TV aural subcarriers in addition to those proposed by BBI, the FCC in 1977 issued a notice of inquiry soliciting comments on the diverse application of these subcarriers. Specifically mentioned were TV stereophonic sound, bilingual sound channels and augmented audio for the visually impaired. Questions also were included regarding other possible uses and implementation factors such as interference, standards and equipment requirements.

In its proposal BBI noted the increasing use of ENG in news program-

ing by television stations and said it was vital that TV stations have a means of communicating with the crews in the field to cue and coordinate. In lieu of using auxiliary broadcast facilities, which would use scarce spectrum space, BBI proposed use of subcarriers on the aural transmitters of television stations to accomplish these one-way communications. (The FCC rules presently permit multiplexing of the aural carrier only to transmit telemetry and alert signals from the transmitter site to the control point of a television broadcast station authorized to operate by remote control.)

The Commission said that because of technical developments since the comments and replies were received on the notice of inquiry, it would at this time propose rules covering only the use of TV subcarriers for cuing and coordinating ENG crews in the field.

It proposed limiting subcarriers to the band 20 kHz to 75 kHz. The Commission specifically asked for comments on the effect these changes would have on the rules governing cable television systems.

ENFORCEMENT ACTIONS ORDERED AGAINST IMPROPER AMATEUR LICENSES AND CALL SIGNS

The Commission has ordered its staff to initiate enforcement actions against persons who have fraudulently obtained amateur radio licenses or upgrades without taking and passing the required Commission examinations.

The Commission also directed the staff to order call sign changes for Commission employees who obtained their call signs in a manner inconsistent with the Commission's Rules.

The Commission also directed the staff to order call sign changes for Commission employees who obtained their call signs in a manner inconsistent with the Commission's Rules.

This action is the result of an investigation into Amateur licensing improprieties initiated by the FCC on October 19, 1977.

On June 14, 1976, the FBI began an investigation after its Indianapolis Office received information that persons were obtaining Amateur radio licenses without taking the required examinations. The FBI found that a local Amateur licensee was arranging for the improper issuance of Amateur licenses through Richard Zeigler, who was then Chief of the FCC's Special Licensing Section at Gettysburg, Pa. The FBI's Cincinnati Office also received information indicating that Zeigler had accepted $100 payments from four licensees in the Columbus, Ohio area in connection with the issuance or reservation of specific call signs. On April 28, 1977, Zeigler was indicted on four counts of violating the U.S. Code for allegedly accepting this money. On June 6, 1977, he was convicted on two counts. He subsequently resigned his position with the Commission.

The Commission also became aware of other questionable Amateur licensing and call sign practices, in addition to those revealed by the FBI investigations.

On October 19, 1977, the Commission released an order instituting on its own motion an inquiry into the alleged improper issuance of licenses and call signs in the Amateur Service and directed inquiry into three areas:

—The payment of cash or other consideration in connection with the issuance of Amateur licenses, upgraded licenses, or call signs to persons not qualified to receive them;

—The issuance of Amateur licenses, upgraded licenses or call signs to persons not qualified to receive them, without payment of cash or other consideration; and

—The receipt of call signs in a manner inconsistent with the Commission's Rules. (The Rules required that the Commission "systematically" assign Amateur call signs.)

Investigative hearings on these matters were held in Indianapolis and Washington, D.C. On June 1, 1978, the record was certified to the Commission.

The record in this proceeding indicates that about 50 persons obtained or tried to obtain Amateur licenses without taking the required tests. In these instances, the Commission said appropriate enforcement action is dependent on the nature and extent of the licensee's participation in the matter.

The Commission therefore authorized the staff to initiate enforcement proceedings to revoke and suspend the licenses of any Amateur who appears to have actively participated in an effort to fraudulently obtain a new or upgraded Amateur license without examination.

It said such conduct raised serious questions concerning both the licensee's technical and character qualifications.

The Commission said that where it appears that a person received a new or upgraded Amateur license without examination, but in good faith and without fraudulent intent, such as when the license was unsolicited, license revocation proceedings would not be appropriate. However, the Commission ordered action by the staff to return these licensees to their original license status.

The record also shows a long-standing past Commission practice of assigning specific and/or preferred call signs to favored Amateurs, including some 40 FCC employees. The Commission noted that this practice has since been terminated.

The Commission said that Amateurs who were assigned call signs of their choice received certain intangible benefits, but they received no additional operating privileges. Also, no money or other consideration was paid or given to any Commission employees in connection with these call sign assignments and no misrepresentations were made by the applicants to obtain their call signs.

The FCC said that it erred in assigning Amateur call signs in this manner. However, it said that absent a misrepresentation or the payment of money the Commission's assignment of call signs in this manner did not raise questions as to the qualifications of these Amateur licensees.

The Commission said that persons who received call signs in this manner may have exercised poor judgment. However, they did not violate any Commission rules. It was the Commission itself that did not adhere to its own rules in assigning these call signs.

Requiring its employees to maintain a high standard of conduct, the Commission directed the staff to order call sign changes for those past or present Commission employees whose current call signs were not assigned in accordance with the Commission Rules.

RECENT CB "ACTIONS"

The FCC took the following recent CB actions:

CANOGA PARK, CA. Ordered Jerry L. Cassidy, licensee of radio station KGJ-4623 in the Citizens Band Radio Service, to show cause why his license should not be revoked for apparent violation of Section 301 of the Communications Act and various CB rules.

FULLERTON, CA. Ordered Howard M. Thompson, licensee of Citizens Band Radio Station KAFX-3287 and Amateur Radio Station KB6JJ and an Amateur Advanced Class Operator, why his licenses should not be revoked for apparent violation of CB rules 17(a), 19(a), 23(a) and 30(a), including operating on an unauthorized frequency, and Amateur Rules 97.61(a), 97.87(a) and 97.123, including improper station identification; and why his Amateur Advanced Class Operator license should not be suspended.

SANTA ANA, CA. Ordered T. L. Jones, licensee of Citizens Band Radio Station KCK-4174, to show cause why the license should not be revoked, for

repeated violation of Section 301 of the Communications Act and CB Rules 17(a), 19(a), 23(a)(9), 30(a), and 42(b), including unauthorized frequency.

AUBURN, ME. Effective February, revoked the license of Peter Green for Citizens Band Radio Station KSC-9441, for failure to reply to an Official Notice of Violation dated September 19, 1978 and a follow-up letter, alleging that he had violated Sections 95.455(a) and 95.471(c) of the rules, including use of a frequency not authorized for the Citizens Band Radio Service.

BALTIMORE, MD. Ordered Donald B. Kirkwood, Jr., licensee of Citizens Band Radio Station KAYB-8389, to show cause why his license should not be revoked, for alleged violation of Section 301 of the Communications Act and CB Rules 17(a) (unauthorized frequencies), 19(b), 20(a), 23(a)(6), 30(a) and 42(b).

DETROIT, MI. Ordered Frederick G. White, licensee of Citizens Band Radio Station KAAH-2726 to show cause why his license should not be revoked for repeated violation of CB Rules 17(a) (transmitting on unauthorized frequencies), 19(b), 29(b), 30(a) and 42(b).

MILWAUKEE, WI. Ordered Clarence A. Zaborowski to show cause why his license for Citizens Band Radio Station KARE-6424 should not be revoked for repeated violation of CB Rules 17(a), 19(b), 29(b), and 30(a), including operating on unauthorized frequencies.

FCC REVOKES LICENSES OF 54 CBERS

The Commission has revoked the licenses of 54 CB radio operators.

The FCC revoked the licenses for failure to respond to an Order to Show Cause why their licenses should not be revoked for repeated failure to reply to Commission notices and for violations of various sections of the rules.

These sections involved communicating over 150 miles, failure to identify by call sign, use of 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 individuals whose licenses were revoked:

Donald Miller, Crossville, Tenn., KZK-5695.
Jay Corey, Everett, Wash., KDZ-6446.
Dennis Burr, Fullerton, Calif., KAXX-1276.
Dan Hofeld, Burbank, Calif., KAB-6646.
James Levandusky, Mount Clemens, Mich., WYD-6440.
ELPAC INC., Berwick, La., WZH-8224.
Steven Stauss, Chicago, WYX-8815.
Fred Clark, Port Orange, Fla., KBCY-1876.
Juan Miranda Cruz, Arecibo, Puerto Rico, KABM-5373.
William Armitage, Jr., Avenal, Calif., KQP-9188.
Modesto Hernandez Correa, Arecibo, Puerto Rico, KFS-4195.
Mark Haynie, Scranton, Penn., KWJ-0646.
Harry Arline, San Jose, Calif., KAWU-4926.
Jack Redman, Jr., Los Angeles, KWH-7653.
Santiago Martinez, Mayaguez, Puerto Rico, KAXE-3945.
William Galloway, Phoenix, Ariz., KADF-2566.
Pedro Medina, Aguadilla, Puerto Rico, KAAT-9223.
Richard Clark, Sarasota, Fla., KAEC-2753.
Bobby Huguley, Cicero, Ill., KAKT-3128.
Wardell Evans, Sacramento, Calif., KAXR-1480.
Gene Perry, Griffith, Ind., KOB-7005.
Ramon Calero, Miami, KAJW-7545.
John Chaney, Glendale, Ariz., KAHO-1733.
Barry Fuller, Sioux Falls, S.D., KAFS-7081.
Bennie Shoats, Washington, D.C., KLN-8371.
Eric Goosby, Houston, KAVS-9430.
Thomas Castillo, Honolulu, Hawaii, KAII-0328.
August Soutiera, St. Louis, Mo., KXZ-0050.
Anthony Boccia, Cleveland, Ohio, KAPD-4573.
R. L. Kerbo, Oklahoma City, Okla., KBE-5209.
John Chaney, Glendale, Ariz., KAHO-1733.
Melvin Chappell, Toledo, Ohio, KGF-8389.
James Smith, Fort Myers, Fla., KARP-4158.
Hector Puchols, Rio Piedras, Puerto Rico, KBBZ-9530.
Christopher Walis, Canton, Mich., KCU-0952.
Roy Servin, Torrence, Calif., KBCP-4092.
Elliot Jacks, Howard Beach, N.Y., KBBI-9524.
Lee Jenkins, Savannah, Ga., KBJI-7166.
Frank Lovering, Riverside, Calif., KOP-5839.
Holman W. Robertson, Ill., Springfield, Tenn., KIX-7063.
Simeon Indeck, Alhambra, Calif., KBIC-4909.
Louie Kelley, Centre, Ala., KHF-6664.
Andrew Daniel, Bronx, N.Y., KPK-4624.
Miguel A. Ramos Alvarez, Springfield, Mass., KBBJ-5812.
Marc Starsky, Englewood, N.J., KNB-7386.
Alan Bartz, Phoenix, Ariz., KWO-8035.
Albert Sanchez, San Antonio, Tex., KSP-1330.
Frank Niskey, Lorain, Ohio, KEN-5670.
Edwardo Olan Montalvo, Mayaguez, Puerto Rico, KBIH-0024.
Gillmer H. Griggs, Sr., Paducah, Ky., KEO-8741.
Johnie Thompson, Jr., San Jose, Calif., KAHL-4731.
Jerry Dowdy, Jr., Fremont, Calif., KAZR-1567.
Edgar Owens, St. Augustine, Fla., KADF-7892.
William Mondy, Washington, D.C., KAWI-7323.

PROPOSAL TO CHANGE AMATEUR POWER TRANSMITTER LIMITATION DISMISSED

The FCC dismissed a petition by Ronald J. Potaczala, seeking amendment of the Amateur Radio Service rules to change the 250-watt transmitter power limitation applying to operation on certain frequency bands.

Potaczala's amendment would have excluded the electrical power associated with the grids of vacuum tubes from consideration under the 250-watt limitation.

In support of his request for a change in Section 97.67(d), or alternatively a statement of clarification, Potaczala said that amateur radio operators may unintentionally violate the rule by adjusting vacuum tube type transmitters to operate with a plate input power of 250 watts, causing the total power input to the final amplifying stage to exceed the 250 watts.

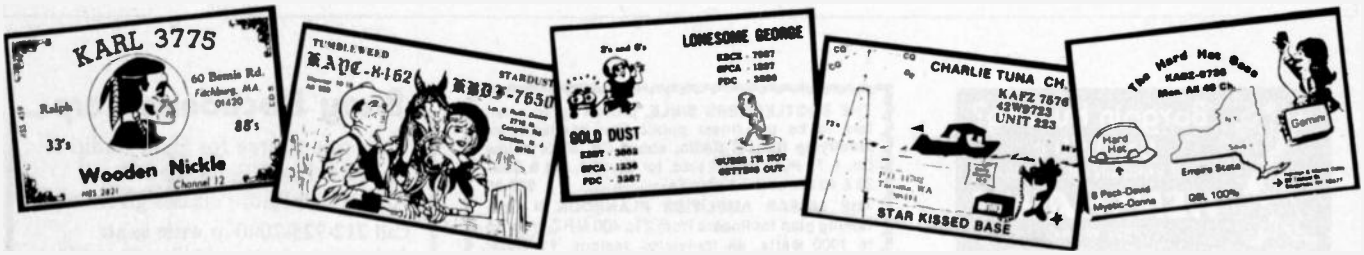
The Commission said that the wording of the rule was satisfactory and amendment therefore was unnecessary. However, by way of clarification, the Commission provided an example giving the operating conditions of a typical vacuum tube type transmitter, showing clearly that the power associated with the grids is included in the total.

For example, an amateur radio transmitter using two type 6146B vacuum tubes in the final amplifier, driven to full rated output, and operating on frequency 3725 kHz, A1 emission, would be determined by adding: plate input power, 180 watts; screen grid power, 3.5 watts; and control grid power, 0.4 watts; (heater power of 15.75 watts not included); for a total input power to the final amplifying stage supplying power to the antenna (180 + 3.5 + 0.4) as 183.9 watts. Since 183.9 is less than 250, the transmitter would comply with the rule.

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.

Cutty Sark	J. Renshaw, 8361 Woody Dr., Norfold VA 23518
Lucky-Lady Hud-	Hazel Gettinger, 78 sondale St., Weatherly, PA 18255
KPM 0221	78 Hudsondale St., Weatherly, PA 18255
KASZ-2323	Faye Unit 720, PO Box 5983 August FA 30906
KGC-1045	The Blanchettes, 1 South St., Danielson CT 06239
Hill Top Lady	Ethel Gomez, 24 Woodland Dr., Wappingers Falls, NY 12590
6W132	H.M. Koski, 19 Squam Rd, Rockport MA 01966
Big Dollar/ Unit 183	Pres. U.S. of Texas QSL Swap Club, P.O. Box 183 Henderson, TX 75652
Mr. Magic/ Rag-Muffin	The Martin's, 101 Diplomat Plaza, Morton, IL 61550
KQL 5845	John J. Vinsko, 34 Weston Place, Shenandoah, PA 17976
KXD-9421	Gus & Ella, P.O. Box 54 Byron Center, MI 49315
KHN-4892	Mike Zimer, 2917 Coventry Blvd., N.E., Canton, OH 44705
Unit 76	P.O. Box 14786, Philadelphia, PA 19134
Wizard/ Travler	Box 16164, Ft. Harrison IN 46216
Purple Viking	Jon Klotz 6501 Old Boonville Hwy., Evansville, IN 47715
Cleopatra/ Warlock	The Diefenbach's, 1501 Nathaniel Mitchell Rd., Dover, DE 19901
KMV 2120	Jim Thompson, Rt. 6, Box 90A, Ida OK 74820
KAXO-9558	Paul H Miller 361 Tracy Lane, Grand Island, NY 14072
Hard Hat/ Gemini	The Daley's 22 Teetsel St., Saugerties, NY 12477
SSB-1186-B	LP Sell, Sr. 9423 Waverly Dr., El Paso TX 79924
KAST-6919	Mildred S. Bugbee Rt 1, Box 39 Pennville IN 47369
Big John/ Snuggles	P.O. Box 9266, Phoenix, AZ 85068
Mr. Coffee	Michael Ray, 200 West Carney Ave., E. Herkimer NY 13350
SSB-1406-A	Chip Lucas, P.O.B 265, Verona, PA 15147
KEY 2443	M Spranger Jr., Rt 1 Perry Lake, Fairview, MI 48621

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

CIRCLE 30 ON READER SERVICE CARD

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

IF YOU OWN A RADIO, THIS MICROPHONE WILL LET YOU TRANSMIT FURTHER AND CLEARER OR WE'LL GIVE YOU YOUR MONEY BACK!

Guaranteed to out perform any mic on any radio!

A speech processor microcircuit, designed by us, that eliminates splatter, boosts power and recharges its own battery. A patented American invention made in an American town.

CHECK OUT THE EXCLUSIVE FEATURES!

- CLIPS ANYWHERE
- PROCESSES SPEECH WITH COMPUTER CIRCUIT
- SOUND SENSITIVE 2 INCHES OR 2 FEET
- NOISE CANCELLING
- TWO MICS WITH ONE SWITCH
- FRESH CHARGE WITH NO BATTERIES

YOUR DOUBLE GUARANTEE

GUARANTEE I:
The K40 Speech Processor is guaranteed to outperform any microphone it replaces or return it for a complete and full refund within 7 days from the K40 Dealer that installed and tuned it.

GUARANTEE II:
Unconditionally guaranteed for 12 months. Guaranteed against cracking, chipping, or rusting. Guaranteed against mechanical failure. Guaranteed against electrical failure. No exclusions. No gimmicks. For a full 12 months.

$44.50 Suggested Retail

AMERICAN ANTENNA
ELGIN, ILLINOIS 60120

...Sold exclusively by 3500 American K40 Dealers throughout the U.S. & Canada.

CIRCLE 4 ON READER SERVICE CARD