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AMERICA'S OLDEST AND LARGEST CB MAGAZINE

**VOLUME 19 NUMBER 10** 

OCTOBER 1979

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**Bonnie Brennan** assistant editor & production manager Bill Sanders, KBAH6794/SSB-295 Rick Maslau, KNY2GL Marc Stern, KBFS 8072, SSB-0A71 C. M. Stanbury II contributing editors

"Zulu Mike", SSB-10A (France) European Correspondent

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S9 Magazine (USPS 097-930) is published monthly by Cowan Publishing Corp., 14 Van-derventer Ave., Port Washington, NY 11050. Telephone: (516) 883-6200. Subscription Rates: U.S.A. and possessions, APO, FPO: One Year \$12.00; Two Years, \$20.00. Cana-dian and foreign rates: One Year, \$13.00; Two Years, \$22.00. Printed in U.S.A. Entire contents © 1979 by Cowan Publishing Corp. All circuits, designs and construction projects in S9 Magazine are strictly experimental and we do not guarantee the results which can be expected from their use or application. Unsolicited manuscripts are not returned or acknowledged. Controlled circulation post-age paid at Glasgow, Kentucky. Postmaster: Please send Forms 3579 to S9 Magazine, 14 Vanderventer Ave., Port Washington, NY 11050.

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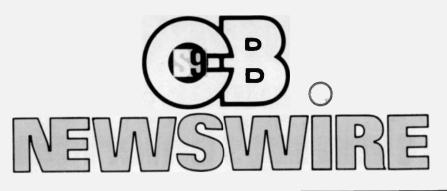


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#### **YOUR CB NEWSPAPER**

## 'Little Sly Mongoose' Back On The Rig

A physically handicappped 16-yearold Hawaiian boy, known as the "Little Sly Mongoose" over the citizens band radio airwaves, is one of the happiest teenagers in Hawaii today.

Gregory Orta, who lost his CB antenna in storm winds had nothing to fill his long empty hours since his radio went dead, has a new antenna thanks to a CB enthusiast who read the story of Greg's plight.

"When I heard that the boy was off the air and that this was his only source of entertainment, I didn't think it was right," said Robert Trombly, a fellow CB enthusiast and part-owner of Alcom Radio Sales Inc., a shop that sells CB equipment and other electronic communications gear.

Trombly, known on the airwaves as "Bob T," donated a new Star-Duster antenna to Greg from the shop, and just before noon Sunday drove to Greg's home to help install it.

He and two CB friends, "Hammerhead" and "Manila Boy," put it up in the midst of a rainstorm. It took them four hours.

"Being from here we don't pay any attention to the rain," he said.

A few minutes after the new antenna was up, a delighted Greg was back "on the rig" talking once again. There were tears in his eyes.

Greg, who had been severely depressed after his antenna blew down, was so happy he spent the rest of the day talking on his radio. He was so excited, he could barely sleep that night.

"I never like sleep, I stay up," he says. He talked way past midnight Sunday and made "plenty" new friends, he said. Many of them were people who had read about him. Greg, who suffers from a rare and crippling bone disease, operates his CB equipment flat on his back. As a result of the disease, his body is small and malformed and he cannot sit for long periods because of the pain. The CB radio is his favorite pastime, and the only thing that really makes him happy.

"That was the happiest boy for the first time since he lost his antenna," said his mother, Virginia Orta.

Since the story appeared there has been a tremendous outpouring of public sympathy for Greg. Much of it has come from fellow CB enthusiasts.

Numerous people offered to donate antennas to Greg and others have offered to help install them or to assist in any way they could.

But it was Trombly who came to Greg's aid immediately and who, in addition, has set up a fund to assist in buying Greg a "beam" antenna. "We will see that the boy receives another Moonraker 4," he promised.

The Alcom Radio Sales shop now has a box on the counter labeled "Little Sly Mongoose Fund." The shop is collecting contributions toward getting Greg the more powerful setup he has set his heart on.

In addition to his new antenna and the continued assistance Trombly has pledged, Greg and his family have been taken warmly into the CB fold. Six CBers—"Coconut Hat," "The Blue Swinger," "Waipahu Sweet Talker," "Blue Diamond," "Spanish Boy" and "Delta Five"—dropped in on Greg to shoot the breeze and run a check on his equipment to see how far it reached. They also invited Greg and his family as the special guests to a CB potluck picnic at the Pearl Harbor Park.

#### **OCTOBER 1979**

## Arizona Operator Reports Unsafe Bridge!

Shortly after 10 one recent night, Scottsdale resident Chuck Heron, SSB-1552-A, received an alarming call on his CB radio from a truck driver who had just crossed the Interstate-10 bridge.

"He was rather matter of fact about it," Heron recalled. "He just told me we needed to get in touch with someone because the bridge was sagging."

Heron, president of Scottsdale RE-ACT, made a fast phone call to the Department of Public Safety. "I didn't want to put it out on the air until I got DPS. There are always many rumors going around at these times."

Looking back on his actions, Heron said he is glad he reacted as quickly as he did. "Because 30 minutes later I got a call back from DPS that the bridge was sagging and they were closing it off."

Heron said the REACT group has been extremely busy during the past few days because motorists are constantly making CB calls concerning the bridge situation. "We have been monitoring through the middle of the night every night this week to give travelers information."

The Salt River Project is releasing water down the Salt River at a rate of about 50,000 cubic feet per second.

Heron admits that the information he received and relayed to DPS concerning the sagging I-10 bridge could have been the most important message he has handled so far.

The eastbound lane of the bridge has sunk between 4 and 9<sup>1</sup>/<sub>2</sub> inches, said DPS spokesman Sgt. Alan Schmidt. "Although it looks a lot worse," he admitted.

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### **Delaware Woman Arrested In FCC Raid**

A surprise federal crackdown on radio operations has resulted in the arrest of a Wilmington woman and the seizure of \$2,500 in radio equipment.

Assistant U.S. Attorney John H. Mc-Donald, who will be prosecuting the CB cases, said 25 other people could be fined.

The charges made by the FCC team include using unauthorized frequencies and failure to give station call signs.

McDonald said a traveling team from the Federal Communications Commission monitored the Wilmington airwaves on April 20 and 21, after the U.S. Attorney's office relayed a complaint to the FCC.

Local authorities didn't know the FCC team was here until it asked for search warrants, McDonald said.

"Commission mobile radio direction finders were used to locate a number of individuals who violated a wide range of FCC rules," Coleman said.

Two separate seizures were made by the agents, and Sylvia Lisansky was arrested for allegedly interfering with U.S. Marshals who came to seize her equipment.

McDonald said she threatened to sic her dog on the agents, who had a search warrant. She was charged with operating out of normal CB channels. He said Ms. Lisansky was released on her own recognizance.

"That's totally wrong," Ms. Lisansky, whose CB handle is "Sweep Lips," said. "I didn't push anybody." She refused to comment further.

The other operator whose equipment was seized allegedly was shooting skip, McDonald said.

Seized equipment included transmitters, receivers, microphones and logs, authorities said.

Word of the FCC monitoring spread quickly among local CB'ers, one CB enthusiast said this morning.

"All I know is that they were in town," said "Little Bit," a woman member of the Centurions radio club.

## Wind Topples CB Antenna Into Power Line-2 Die

A Davenport (Iowa) man narrowly feet backwards." He said he was blindescaped death, but two Iowa Quad-City men were killed when a gust of wind blew a CB antenna onto a high voltage power line.

Victor Murray escaped injury when he released his grip an instant before the metal antenna struck the power line.

Dead are Virgil F. Dent, 56, of Davport, and Darrel Wade, 36, Buffalo.

Murray said the three men were in Dent's backyard trying to install the antenna "when the wind started up."

"I guess it must have come down and hit the top of those wires," he said pointing to the high voltage wires only minutes after the accident.

"I just let go of the pole to get a better hold and it just lit up," he said.

"I was standing so close to them, I guess I was real lucky."

Neighbors said the flach lit up the sky in the northwest Davenport neighborhood. "My 13-year-old son saw a flash of light," a neighbor said.

Murray said he received an electrical jolt. "It knocked me, I don't know, 15 ed for about 20 seconds.

"The first thing I thought of was getting the ambulance here because when I got off the ground they were both laying on the ground," he said.

William McRae, a representative of Iowa-Iillinois Gas & Electric Co., said the live wires that the antenna hit were 33 feet off the ground.

McRae was called to the scene to investigate the accident. He and police officers examined and took photographs of the bent antenna that stretched the length of the Dent backvard.

Richard Vernon, said the tall antenna had been damaged during the recent high winds.

"He had it up before and the winds bent it the other day," Vernon said. "He took it down to straighten it."

Vernon said the CB "was more or less (for Dent) to keep in touch with his wife, when he was around town doing things."

Dent is survived by his wife, Mary, and a teenage daughter at home.

## **CB** Radio and **Forest Service** Aid Boater

#### by AL LAMBERT, SSB-OA69

On April 17, 1979. in Page, Az., Al (SSB-OA69) #469 and Dub (GC70) were holding a QSO on 27.155LSB. It was 10:15 P.M., M.S.T. . . .

We were between keys when we were interrupted by a trucker called Pig Iron. He asked if we could go to AM19 and help an old boy and his wife stuck out on Lake Powell. He said to call for White Top.

We went to AM19 and Dub (known on AM as Talking Toy) hailed White Top. White Top came back and gave Dub his QTH, as being tied to a rock to avoid the wind, below some night lights and a road. Dub called the Forest Service while I (Unit #469) (Camel on AM) and the Pig Iron kept communications open.

White Top said they were in a bass boat doing some fishing and became lost. The wind was coming up and between these two problems they ran out of gas. They used a 4.5HP trolling motor until it too went dead. By then they could see lights so they tried to raise the marina on 9 and 19 but to no avail. Finally Pig Iron running a load of lumber to Page picked up their plea for help and went to Channel AM 16. and thanks to bleedover or splash (QRN) and contacted us on the SSB.

The weather was dry, about 450°F and a 12 knot wind blowing from the N.W.

Many people do not know Lake Powell. It is 185 miles in length and riddled with canyons. It's beautiful by day, but can be treacherous at night. You can get lost or run out of gas easily, hit a rock, or, maybe get too close to an eroded canyon wall.

These people were luckier than many. By 11:18 P.M., a little over an hour after their plea was heard via CB (and Pig Iron) the Forest Service rescue boat was alongside with gas and a friendly hand.

Due to CB Radio, a good-hearted truck driver, and the U.S. Forest Service, White Top and his XYL were spared the possible hazards of a night on a strange lake and the elements!



## DENVER'S WHITE ELEPHANT: ON THE AIR!

The Denver, Colorado, white elephant in the mousetrap is a functioning member of society again, and its existence is easing some of the problems motorists are having getting through "the big squeeze"... and that's a big ten-four!

From the bottom: The big squeeze is what **CB**ers call the traffic conditions created by the construction that has funneled the six lanes of Interstate 70 between Washington Street and Colorado Boulevard into two. The mousetrap is the twisting maze of highway where I-70 and Interstate 25 meet. And the white elephant is the traffic observation tower that was built right in the middle of the mousetrap in 1971.

The Denver Police Department abandoned the tower several years ago because police no longer had a need for it, and the structure has sat there doing nothing ever since.

But motorists with CBs in their vehicles who are now traveling the mousetrap area are likely to hear such things as, "This is the mousetrap—go ahead."

Fourteen CBers from Diesel Control, a CB organization with chapters

#### 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. throughout the state, and a handful of volunteers are manning the tower during morning and evening rush hours, and have helped numerous motorists avoid some problems caused by the construction as well as the everyday hazards associated with driving in the area.

Elmer Haynes, Diesel Control state president, said the club members and volunteers donate their time in order to inform the CB public and traffic officials about road hazards and traffic conditions for several miles in each direction from the mousetrap.

He said the radio operators who man the tower between 6 and 9 a.m. and 3 and 7 p.m. communicate with the public on Channel 19, and also have CB radio communications with city and state police, the state Highway Department and the contractor working on the highway.

He said their efforts have been responsible for calling police attention to accidents within seconds after they occurred and emergency equipment minutes later.

Haynes said the intended range of Mousetrap Control is west to Federal Boulevard, east to Colorado Boulevard, north to 58th Avenue and south to Speer Boulevard, but often the signal reaches miles farther in each direction.

He said Diesel Control has been trying to get permission to use the tower ever since the Police Department deserted it, but city and state officials turned a deaf ear until the highway construction was planned.

The state now pays the utility and telephone bills for the tower, and Highway Department officials say they are pleased with the effort of the CBers.

Haynes said Diesel Control will be operating Mousetrap Control at least until the current construction project is concluded this fall.

Haynes and Ron Leeper, the local Diesel Control president, are trying to recruit more volunteers to man the tower. Persons interested in being trained to man the tower should contact Diesel Control, P.O. Box 84, Denver 80037.

## CB 'Commercial' Inspires Shopping

Submitted by BOB, SSB-1196B

Kentucky State Trooper Mike Evans was cruising last winter near the Burns Brothers Truck Stop, Ky. 18 and 1-75, Florence, when he heard a "commercial" crackle over his citizens' band radio.

Evans' ears perked when he heard someone ask, "Anybody want to buy some pocket rockets?"

That's trucker talk for "uppers" or stay awake pills, the trooper explained about the incident.

The speaker said he had some for sale on the parking lot of the truck stop.

Evans pulled into the parking lot, turned off his lights, cut in on his CB radio and asked the voice if he still had any pills for sale.

The speaker said, "Yeah."

Evans then said it was cold outside and asked the voice if he would deliver the goods.

The voice again said, "Yeah."

The trooper spotted a vacant truck parked nearby, told the speaker he'd be in the cab and asked how he would know the salesman.

The speaker said he has black hair and a goatee.

About a minute later a man with black hair and a goatee appeared at the cab of the truck, Evans said.

Michael Stanley Williams, was still looking inside the cab when Evans stepped out of his cruiser and arrested him on charges of possession of drugs not in their proper containers, a misdemeanor, and trafficking in barbiturates, a felony.

Williams had about 50 tablets and capsules in his pocket, Evans said.

The trooper then left the truck stop with Williams in tow.

It was then that Williams told Evans that "his boss" was still back at the truck stop.

Evans said he got on his CB radio and attempted to make another "buy."

A short while later Evans arrested Tony Clinton Anders and lodged the same charges against him that he had against Williams.

Anders was carrying his pills in the leg of his boots, Evans said.

For Information About Our Advertisers...



### Bus Drivers Want CBs For Emergencies

Cross-country bus drivers are asking the government to order their companies to permit them to install CB radios for use in accidents and other highway emergencies.

But officials of some companies, including Greyhound and Trailways, want to keep their drivers 10-7. The radios' disadvantages outweigh their advantages, they contend.

Both sides aired their positions at hearings by the Federal Highway Administration and the National Highway Traffic Safety Administration.

"I would like to point out that every other mode of mass transportation has two-way communications — trains, planes, steamships, city bus lines and taxis," Greyhound driver Robert P. Evans of Denver told the panel.

Kenneth R. Moore, international vice president and director of the bus department of the AFL-CIO United Transportation Union, told of benefits to both the bus companies, their drivers and the public.

"For management," he said, "there is the benefit of increased avoidance of traffic delays arising from weather, accidents and construction and repair work, therefore assuring more nearly on-time performance . . . plus customer satisfaction.

"For the public . . . it (CB radio) has proven its capability to provide safety and security; it can summon urgently needed assistance for cases of sudden illness or injury, it can obtain information on unforeseen dangerous highway conditions or call for help...."

"The proponents . . . will tell you that CBs are needed to help the driver avoid accidents, prevent bus hijacking, control unruly passengers, etc.," Begeman said. "These allegations are simply not supported by fact.

"A review of some 400 accidents and incidents involving Trailways equipment and personnel in 1978 shows that not one accident would have been avoided, nor would one incident have been handled more safely, if the driver had access to a CB radio," he added.

But Robert J. Forman, chairman of the safety committee of the American Bus Association and Greyhound vice president for safety, and Robert G. Begeman, Trailways director of safety and security, disagreed.

## Miami Beach Police Using CB's

Miami Beach patrols have come up with a novel way to be contacted by motorists in trouble or those who've just spotted crimes in progress.

CB'ers who run into trouble while traversing Miami Beach streets, can now contact Miami Beach police department directly on their CB's, without having to stop to use a phone.

The Miami Beach Polic Department received a CB station as a gift from the Miami Beach Chamber of Commerce.

The radio is monitored 24 hours a day by Beach police and will be used to pick up calls from motorists who "are stranded, have just observed a crime or have been victims of a crime themselves," said Public Information Officer Jon Andersen.

"This way they don't have to get out of their cars and go to a phone," added Andersen.

The calls are picked up by Beach police on Channel 9.

Signs saying, "Miami Beach Police Monitor CB 9," are now springing up throughout the city.

## Alaskan Man Jolted On Tower, CB'ers Call Smokey

#### by JERRY, SSB-437

Man Critical After Shock: A Fairbanks man was reported in critical condition after receiving a severe electrical shock while climbing on an electrical tower. Witnesses said Harry Barber received a shock of approximately 20,000 volts while climbing on a tower. He was taken by ambulance to Fairbanks Memorial Hospital after State Troopers were contacted via Citizens Band Radio.

The CB'ers involved in the initial contacts and 10-5's were The Low Rider, Pipe Smoker, and Orange Crate. On another base station, The Five Percent was standing by to give CPR Instructions if needed. The Five Percent holds a current CPR Qualification Card.

## The Florida Troubleshooters

The Trouble Shooters are aptly named. The local CB club is always looking for ways they can help others and enjoy their CB's. Some time ago members contributed \$500 to Wheelhouse in Lakewood (Fla.) for dental care for residents.

Wheelhouse, a residence for young adults confined to wheelchairs, is an excellent way for them to exert their independence and become productive members of the community. Special training, educational and social programs are offered. Some residents are students in high school and at Florida Southern College, while others are learning various types of work. Pete Wesley, mother of a resident, is executive director and a founder of this unique project located at 711 Wilson St.

CB'ers in Lakeland contact Ray, SSB-1168B, Troubleshooters CB Club, P.O. Box 2218, Lakeland, Fla. 33803.

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EVER wonder why someone doesn't come out with a Sideband transceiver which doesn't require a clarifier control? If you're a Sidebander you can appreciate the possibilities of such a minor blessing! Not that it's an enormous nuisance, but for all of the many advantages of Sideband as a communications tool, the *clarifier* is a control which does require adjustment from time to time—that's something you don't have to worry about with AM!

So, you ask, if they can put a man on the Moon then why can't someone design a Sideband rig that is *self*clarifying? This, and a number of other "good" ideas that don't seem to be available have been asked by our readers over the years. We thought it might be of interest to look over some of the more often suggested ideas and see what they're all about!

#### THE SIDEBAND RIG WITHOUT THE CLARIFIER

It's not that the technology isn't there, obviously it is since there's a photo of a Sideband rig without a clarifier shown in use on our front

UPPER RIGHT An SSB rig without a clarifier? That's what Texas Instruments designed for the CB marketplace 2 years ago. Even had all of the controls in the microphone. Only problem was that the rig never went on sale!

#### LOWER LEFT

Lafayette's Telsat 150 had a tunable VHF receiver combined with a 23-channel CB rig.

#### MIDDLE

"Ruggedized" was the key-word for this gutsy little CB rig from General Radiotelephone. Wasn't much in the looks department but it could take a terrific beating.

#### LOWER RIGHT

A combo rig with a tunable high quality communications receiver was tried in the early days. First by Hammarlund, then by Browning Labs with their Golden Eagle base station. The Golden Eagle (here shown in an early stage of evolution— Model R-2700A) had an excellent receiver but it only tuned 11 meters.

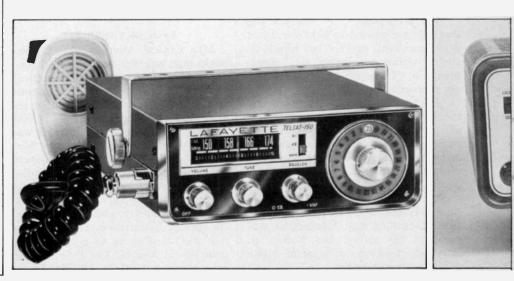
#### By George Spelvin

cover this month! No foolin'—an inthe-flesh deluxe rig, designed in base and mobile versions without any handadjusted clarifier control! The clarification chores weren't eliminated, only the need for the operator to fiddle around with the control was dumped. The clarification duties were all turned over to an internal micro-computer which was designed to constantly monitor incoming signals and make internal adjustments for proper clarification!

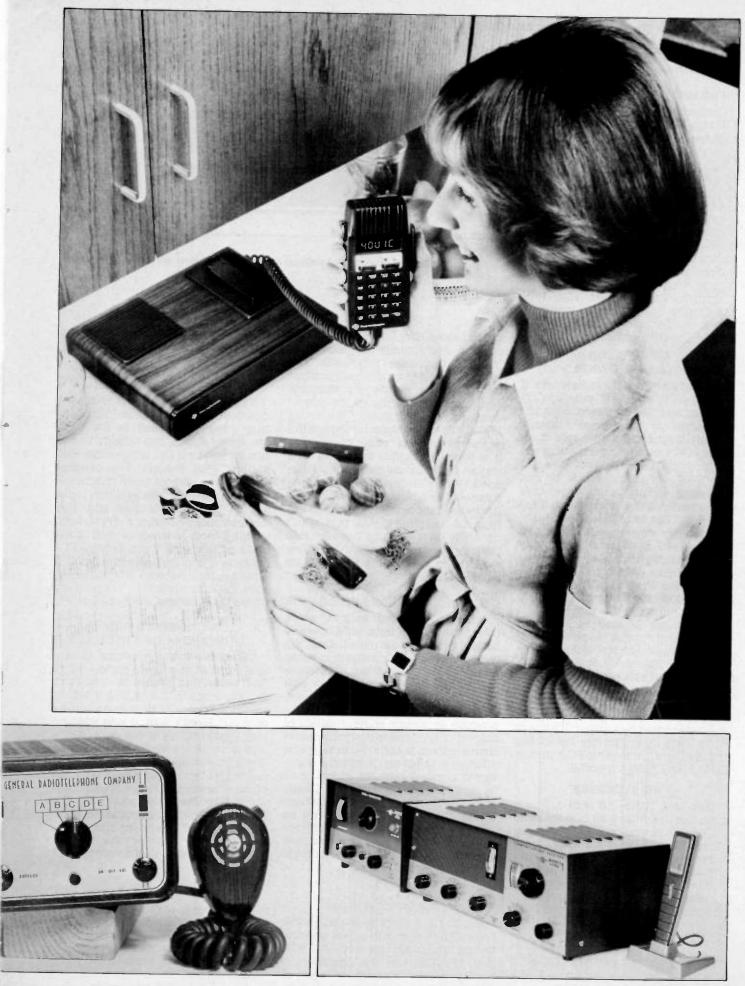
Nice, huh? It's one of the most often requested things we hear about here too. And how much does this cost and where do you get one? Well-uh-erummm-you can't get one, they're not on sale and we don't think they ever were! The rig was designed by Texas Instruments, announced in mid-1977, and was shelved with as much suddenness as it had been announced! Why? We've heard half-a-dozen reasons, none seem to be the right "one." Maybe someday somebody else will come up with this feature. Or, who knowsperhaps Texas Instruments will finally bring their unit to the marketplace!

#### **AUTOMATIC TIMERS**

You may be surprised to learn that there has been reader interest in CB rigs which ring bells or stop transmitting altogether after a 5-minute stint on the air. This idea is apparently not so much intended to bring operators into alignment with Part 95 as it is to help control on-the-air pollution caused by incurable ratchet mouths who can't seem to realize that they've had their 5¢ worth and that others may be waiting their turn. My feeling is that the "guilty" operators would most likely be the last ones to find this feature to be of any appeal at all! One reader suggested that CB rigs be made like pay telephones so that a red-light on the panel would start blinking when you've had your nickel's worth and that unless you deposited another coin you'd go off the air in 30-seconds. The money fed into the rig could go towards buying a better set, or to pay the postage bills for QSL's! For those readers who are seriously concerned about their own problems with talking too long and would like to enter a selfhelp program, you can get a timer that



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can be set for 15 minutes or more; ringing a bell when the pre-set time elapses. Look for these in the cooking department of any variety store.

#### THE HIGH/LOW POWERED RIG

Readers have suggested producing CB rigs which have hi/low power switches for dual local/long-distance coverage. This was a feature once offered of several CB rigs many years ago. Actually it's consistent with good communications practices which have always dictated that a station should always use the least amount of power necessary to make a contact-cuts down on interference! Stations might have a 1-watt capability for communicating around the neighborhood, regular 4-watt capability for regular communications. Present FCC type acceptance standards don't appear to permit equipment with this feature to exist in the CB service. Too bad!

#### AM RIGS FOR AM-ONLY CHANNELS

A steady stream of readers asks if rigs which are for AM only can be designed so that they cannot be made to operate on frequencies normally used by Sidebanders. This gets down to the FCC's continuing unwillingness to designate mutually exclusive AM and SSB channels. While it was something which could have very conveniently been done when they upped the band from 23 to 40 channels. it's probably an impossibility at this time unless additional frequency space is added to the band. Existing FCC technical standards for Part 95 don't appear to permit CB equipment to be sold unless it operates on all 40 channels, however it would be nice if manufacturers pointed out in their literature that custom seems to dictate certain frequencies are predominantly used for exclusive AM or SSB operations. Manufacturers of AM-only equipment are, however, hesitant to tell purchasers of 40-channel AM equipment that 10 or 12 of those channels should be avoided. It's one of those ideas that users cry out for but just lies there because the FCC and the CB industry don't support it.

#### **TWO STEP MIKE**

This idea starts out with a power mike, but the difference is in the mike button. When you key up the rig you get regular non-amplified modulation, but you find that you can get extra *talkpower* by just pushing in the mike button a little further into a secondary position. That kicks in the amplification circuit and you've got an easy way to give yourself that extra jolt of readability when you need it!

#### **RIGS WITH VARIABLE SELECTIVITY**

There are communications receivers



International Crystal offered hobbyists an AM/CW base station which permitted legal flea-powered hobbying.

which have a nifty little switch, in one position they permit reception of a "normal' frequency bandwidth. But when switched to an alternate position the selectivity of the rig sharpens considerably, at some minor loss of voice quality. By adjusting the tuning (by means of the main tuning control or a small "trimmer" capacitor control) it is actually possible to zero in on a station being buried beneath interference. While Sidebanders are well aware of the advantages of doing this (their clarifier controls accomplish this type of function), AM rigs don't generally offer a choice of switchable "regular" or "sharp" selectivity. Many readers seem to think it would be worthwhile.

#### **DECORATOR COLORS ON CB RIGS**

Color coordinated mobile whips have been around for a while now and several readers have asked about the possibilities of CB transceivers being produced in an assortment of colors to coordinate with auto interiors or with home/office decorations. Of course, manufacturers could possibly have to produce an almost endless variety of color combinations to even compete in such a market, but one reader suggests offering a selection of colored translucent Lucite faceplates which could be easily snapped in place on a CB rig. In that manner the actual manufacture of the CB equipment would not be affected, and users could change colors as often as they changed their mind, Replacement color inserts could be available from dealers.

#### POWER ACCESSORY OUTLETS ON RIGS

Seems like it might be an idea to offer base station rigs with power connection outlets on the rear deck—117 VAC and 12 VDC—for the operation of various station accessories such as rotors, communications receivers, relays, preamplifiers, etc., etc.

#### A DISGUISED "TV TYPE" BASE STATION ANTENNA

A base station antenna that doesn't look like one sounds like an idea which must have been tried in the past. Seemingly it was, but nobody knows exactly how or when, or by whom. Still a good idea though. The concept would be a vertical omni-directional radiating element (stick) which looks like a TV mast. Perched atop this innocent looking stick is a very realistic looking non-functional and nonresonant thing that looks just like a TV antenna, complete with silver colored plastic radials. Such an antenna would have definite appeal in many areas where CB antennas are verboten.

#### A COMBO CB RIG/ COMMUNICATIONS RECEIVER

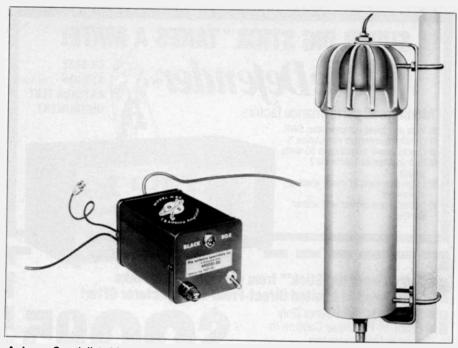
CB'ers like to communicate and are interested in shortwave radio-right? So it seems that it might be interesting to mate a quality CB rig with a quality general coverage communications receiver. Right? Well, it was tried by Hammarlund back in the early 1960's and it wasn't particularly successful. But today things are different and it just might be an idea whose time has come. The closest thing that ever came along after the Hammarlund was the Browning Golden Eagle station, comprised of a CB transmitter and matching receiver, however the tunable receiver covered only the vicinity of 27 MHz.

#### A SCOPE ON THE RIG

Two schools of thought have come forward on this idea. One group suggests that a CRT scope be built-in to CB rigs so that operators could see the shape of the modulation being tossed out over the air by their rigs. The other group approaches it from the other side of the fence, suggesting that a "panoramic feature" (like the old *Panadaptors*) be included in the receiver sections of CB rigs. This device, looking somewhat like a TV screen, would give the operator a visual readout of all 40 CB channels, showing which were busy and which were "open." Another idea tried in the 1960's which didn't cause a stir, but which might just be of interest to CB'ers of the 1980's.

#### COMBO CB RIG & VHF RECEIVER

It's amazing how many people came up with the idea that calls for a CB rig to contain a 1 or 2 channel VHF receiver for monitoring weather and/or police communications. About 10 years ago *Lafayette Radio* had a CB rig with a tunable high-band VHF receiver. I saw a number of them in use and they appeared to be reasonably popular. The only reason I can think of that they were discontinued is that some states give motorists with police radios a bit



Antenna Specialists idea was called the Model 82 Black Box Antenna Amplifier. The idea was to have a fuil-power (legal) "transmitter final" mounted right at the base of the CB antenna, thus eliminating coaxial line losses and inefficient transmitters. It also acted as a preamplifier on incoming mail.



Double Sideband (reduced carrier), also known as DSB, was used in this Regency Range Gain II CB rig. While totally compatible with AM stations, it offered many of the advantages of SSB and avoided many of the problems and inadequacies of AM. Today CB'ers have a choice of AM or SSB. They ask about DSB—but nobody makes these sets anymore!

of a hassle. Or else the idea just wasn't as popular (or clever) as many people thought!

#### PART 15 NO-LICENSE STATION

In our September issue we ran a story on becoming a LOWFER, that is operating a legal no-license 2-way communications on the 1750 meter band. It's fun, and readers have also asked about setting up for full 2-way communications on the 49 MHz lowpower Part 15 "walkie talkie" band. Back when this W-T band was on 11 meters, International Crystal put together a 7-channel complete AM/ CW low powered base station, right down to the antenna mounted atop the transmitter to comply with the FCC regulations. Sounds like the kind of unit that would meet these current demands for a low-power AM/CW hobby unit which would respond to *skip!* Here's a new—well, *almost* new field, 49 MHz hobby CB'ing with lowpower rigs and literally no FCC operating restrictions against skip or any other kind of fun you might want to have!

#### SUPER-RUGGED HIGH-IMPACT RIG

Sometimes most of us tend to forget that all rigs aren't well suited to being used in farm vehicles and other industrial equipment. These rigs are subjected to all kinds of grit and grime, to the effects of salt water or chemical corrosives, to intense mechanical vibration and shock, and to being left outside for exposure to the elements. Readers complain that manufacturers don't produce a no-frills all-guts nuts/bolts rig that is intended for the type of abuse that is dished out in many industrial installations. Old timers may recall the gutsy and ugly little industrial 5-channel CB rig that was once produced by General Radiotelephone. It was aimed directly at the macho market, and was about as no-frills as you could get. The Model "VSM," as it was called, even had a PA system with the hairy chested name of "bull horn." Now that's tough! And not many people knew that "VSM" actually stood for Very Sturdily Made! (cont'd)





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#### THE ALL-TIME MOST UNPOPULAR FEATURE

We couldn't close our little story without commenting on the one feature which seems to be without very much merit but which is invariably included in mobile rigs, and that is the PA (public address). Probably not 1 CB'er in 100 has any use whatsoever for this feature and cannot see why manufacturers are so hepped up about including it, possibly at the additional cost of the toggle switch which permits the use of the PA (upon the addition of an external speaker). The circuitry to make it all work is there anyway, so what the heck-it's one more thing to say that a rig can do. But it does seem that CB'ers can think of a number of other things that they would rather see a rig do than be a public address system.

Fact is that a great many of the things that people seem to want are either illegal or else were tried years ago and set aside. People still ask why double sideband (reduced carrier) is no longer available—this was a really super transmission mode which Regency sold in their *Imperial* and *Range Gain* series rigs long ago. Regency felt that SSB made the idea obsolete, but since DSB was fully compatible with regular AM, offering many advantages over AM (including better range and less interference), folks haven't forgotten it.

And then there was the gadget that Antenna Specialists used to offer. It's illegal today, but it was a full-power (within the CB rules) "final" which was in a weatherproof container which you mounted at the base of your CB antenna. Using one of these units, you were assured that no matter how cruddy a signal your rig was putting out, or how much signal loss you had in your coax, you had a fresh start on life since right at the base of the antenna you were running full legal power, and without any fears of line losses! That was a dandy idea, and people still ask about it.

So, while it may be that some of these brainstorms are really as old as the hills, and some are illegal under present regulations, it does seem that there are still many things which people say they'd buy if they had the chance, but which do not seem to be available in today's marketplace.

You say that we listed everything in the world except the one thing you'd like to see? Well, let us know about it and maybe we'll share it with our readers! But no brainstorms, please, like the fellow who wrote in and asked where he could buy an empty Yaesu FT-101-E cabinet so that he could use it as an "impressive" shell for his \$55 discount shop clunker rig!

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# WATCH OUT FOR GB RIP-OFFS! THEY'RE BACK ON THE INCREASE! HERE'S HOW TO GUARD YOUR RIG FROM THEFT By Marc Stern, SSB-0A71/KBFS-8072

OR a while there the rate of CB thefts was on the way down, but look what's happening—the gas crunch has brought the thieves out of the wocdwork again! Increasing interest/use of CB for gas-locating purposes has CB thefts on the upswing!

Take, for instance, a conversation we heard recently on our local channel. It seems that one fellow had just lost his fourth CB, the victim of a thief.

Then there is the fellow who parked in front of his friend's house only to discover when he came out that the mic on his one-hander was gone, as well as his glasses. Now why anyone would want a pair of glasses we just can't figure out!

Anyway, the problem of CB theft is still with us, even if it isn't being exposed by the mass media the way it was a couple of years ago when everybody was jumping on the CB bandwagon. Back then, CB antitheft measures appeared in the papers practically every week. Now it seems as if the media consider this a problem which has gone away, but it hasn't. Even though it's on a small scale, thefts do happen and it's always wise to take some precautions against them.

Maybe the easiest way to take precautions is the simple lighter plug and a magnetic mount antenna. All you have to do is rig a lighter plug to the power cord of your mobile rig, plug it in, clamp on the magnetic mount and you're ready to talk. Of course, the range isn't as great as other types of antennas, but a mag mount will still work fine.

But, you say you already know this, and we'lt admit you may, but think of the beauty and simplicity of this system. All you have to do is unplug the rig, take off the antenna and put the whole thing in your trunk. All of a sudden there's no trace of a CB or telltale antenna in or on your car and nothing for thieves to notice. In all our dealing with mobile units, this seems to be the best way to handle the problem. Granted, it isn't all that convenient, but it will still save the heartbreak of coming back to your mobile and finding your rig gone and window broken. (One friend of ours and his whole family run their rigs this way.)

But this isn't the only way of handling the problem. You can also rig up a briefcase with a CB inside and the lighter plug and mag mount. It makes the whole system easier to move and store. And, you can take it with you when you leave your mobile.

Suppose, though, you want to use a better antenna and mount your rig permanently in your car, what do you do? There are any number of answers.

The first thing to do is consider an antenna which offers a quick-release mounting like the K-40 or Firestick (and many other brands, too). A twist and your antenna is out of sight in the trunk. But what about your CB itself?

This one's easy. You can use a slide mount and quickly slide out your rig. They're fairly easy to install and they can make your rig part of the car itself. But there are some drawbacks with slide mounts and the one we've heard complaints about is that after a while the contacts tend to work lose or become dulled. This leads to poor rig performance.

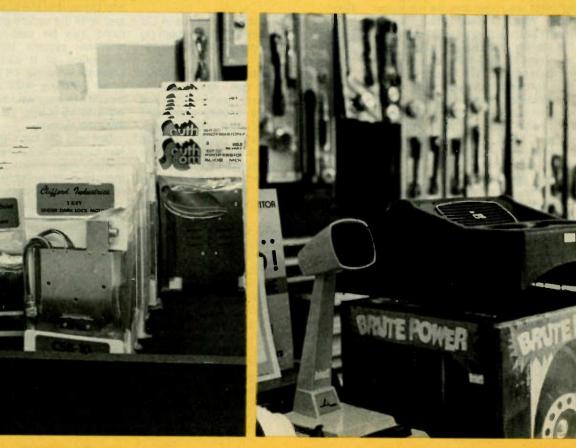
There's another type of slide mount (which ought to prove good for a cassette player, too) and that a lockable one. What happens if some time or other you forget to unhitch your rig and put it in the trunk? You can come out and find it gone. A lockable mount will make it harder for some would-be thief to make off with it. Again, they're fairly easy to install and all you need is a good drill and set of wrenches and screwdrivers for complete installation.

With this type of mount it will take a would-be burglar more time to get your rig out and that's what a burglar depends on, time. If you increase the amount of time it takes him to fiddle around to get your radio out, then chances are he'll move along looking for another victim.

Speaking of mounts, there's still another type of mount, which we have

There's also the type of slide mount destined for underdash use. It can be installed as well on the transmission hump and contains the terminal connections for your antenna and power cord. They are usually permanently mounted and it requires a male and female section to work. (Marc Stern photo)

These hump mounts are an alternative for someone who wants antitheft protection for his rig. They can be easily removed from your mobile and put in the trunk, out of sight and out of mind. (Marc Stern photo)



A universal mount is available for your rig. Like a hump mount, it sits astride the transmission tunnel, but it usually doesn't include an integral speaker. (Marc Stern photo)





A variety of mounts are available to protect your rig. You can use one of the hump slide mounts shown or one (left) with a lock for greater protection. (Marc Stern photo)

used, and that's the hump mount. In many of today's down-sized cars, there's no place to put your rig and they offer you use the transmission hump. What makes them good antitheft units is that all you have to do is lift the rig out and put it into your trunk, mount and all. It gives the advantages of both a mount and the simple lighter plug way of doing things for protection. Hump mounts usually also offer auxiliary external speakers which help improve your listening pleasure. (And, some offer drink holders to help you quench your thirst while you're driving).

There's still another kind of hump mount, too. And that's the simple mount with no self-contained speaker. They make use of the air space underneath your radio and floor pan to improve listening. They also offer the advantages of the hump mount, but are somewhat cheaper.

Then there's the easy way out, mounting your rig directly to either the dash (if there's space) or the transmission hump. All you're doing is using the mounting bar that came with the unit and the screws. Once it's installed, it's pretty easy to unplug the power cord and take off the antenna lead and then unscrew the thumb screws and the unit's ready for the trunk. If your rig's power cord can't be removed, use a lighter plug. Of course you can also mount your rig under the dash, and it's just as easy to remove as if you'd mounted it on the floor.

There are two other ultimates in CB protection and they are the in-dash rig and the one-hander with the removable mike.

In-dash CB's are readily available from any of the major auto manufacturers as factory-installed options. They are usually combined with AM/FM stereo radio, and, possibly, a cassette player. They're good units, some of which feature either LED readouts for S/RF or meters. Others don't have this feature, but most come equipped with an automatic noise limiter or blanker and squelch.

These rigs are tied into your car's regular antenna system and are pretty indistinguishable from regular radios once the plug-in cable has been yanked. If a thief really wants this type of radio, he'd better have a lot of time and bring his own tools because they're tough to get out of the dash. With this type of rig and antenna most people won't even know there's a CB in the car. You can also buy in-dash units from aftermarket auto sound stores.

Then there's the one-hander unit offered by many major CB manufacturers. The beauty of this rig is that the radio is actually stored out of sight and mind. The whole shooting match is actually on the mic. All you do when you park is disconnect the mic and throw it in the glove compartment and voila the radio's gone. This kind of radio can be tied into your car's antenna system for even further protection or it can be run off a separate antenna. I'd suggest either a good antenna with a quick-release mount or a magnetic mount if you don't want to tie it into your car's existing antenna system.

But let's get back to antennas for a few minutes. Suppose you take all the precautions mentioned above and then have an antenna which can't be removed from your car. It's like waving a red flag in front of a bull. You're announcing to all would-be CB thieves that somewhere in, or on, your car there's a rig. And if they want the rig badly enough they'll go to some pretty long lengths to get at it. Even if they don't, they sure as heck can make a mess out of your trunk or doors.

As we mentioned earlier there are various antennas available with quick release mounts and there are magnetic mount antennas which make hiding them a snap. But there are still other kinds of antennas we should take a look at.

If you can afford one, an antenna combining the AM radio and CB is a good bet. It doesn't even look like

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#### AUTO-THEFT FACT PACK

Motor vehicle thefts nationwide: Recent statistics of the Federal Bureau of Investigation indicate that auto thefts have increased more than 50 percent in the past 10 years. Last year alone more than one million vehicles were stolen in America. The loss to consumers was in excess of \$1.5 billion. Insurance companies, it should be noted, rarely reimburse the full purchase price of a stolen car. Depreciation takes its toll.

*Impact on insurance rates:* With the probability of car theft so immense, comprehensive auto insurance costs are increasing each year, especially in the cities. Some car owners, who own particularly "wanted cars" and those who live in certain neighborhoods, often cannot get coverage for their car without paying outrageous premiums to insurance companies.

Profile of the auto thief: Males, under 21, account for approximately 72 percent of all stolen cars. However, professional car thieves account for the greatest portion of consumer monetary loss, because comparatively few vehicles stolen by the pros are ever recovered.

Modus operandi: In most cases forced entry methods were used. Factory steering column ignition locks were broken or hot wiring techniques were employed to start the vehicle. Professional thieves have been known to steal a locked car in less than 30 seconds.

there's a rig aboard your car. You can take this a step further by getting one which combines AM/FM stereo and CB. Voila, no antenna at a II. If you want to prevent any kind of vandalism to your car, there's also the electrically driven hideaway antenna, but they are much more expensive.

Still there's nothing like keeping things separate in case you run into trouble with either your rig or your AM/FM radio, so a good alternative might be a trunk lip unit which pops out of the way when you close the trunk and then pops up ready for use when you open the trunk to get your rig out.

Then there's the gutter mount antenna which just clips onto the gutter and sports the antenna. All you have to do is release the clip and your antenna's out of sight.

Getting back to the mag mount antenna for a minute. Some people we know in the past have rapped their performance, but magnetic mounts are getting quite sophisticated now. Take either the Firestick or the American Antenna K-40 (there are others, too) which offer eight-pole magnetic bases and make more use of your car as a ground plane. In some cases, they also offer better performance than other types of antennas and, as stated before, they also offer some safety because there's no telltale mount sticking up saying "There's a CB here."

There are still other types of antennas we've heard about which offer total out of sight mounting. They make use of your car's glass as the antenna. They are like the hidden antennas embedded in the windshields of GM cars. We don't personally know of anyone who runs one of these rigs and can't report on their performance.

For those of you with 109-inch whips, there are quick release mounts for them, too. So you too can have protection, although it's tough to hide the mounting unit attached to the bumper. There's one other site you might want to consider for mounting your rig and that's under the seat. You can do this with any CB, but there are some severe handicaps. If you do go this route then be aware you'll have to look under the seat every time you want to check on your channel or if you want to change. This is a dangerous exercise for a driver. And you can't see your modulation light or meter under the seat, either. Unless you have a onehander unit which can be installed either in the trunk (which we mentioned before) or under the seat, we'd suggest you forget this site. There are just too many problems.

In general, there are also a few other rules which can keep you and your rig (and possibly your car) together. Always lock your car and pocket your keys. An unlocked car is an open invitation to a would-be thief. Never leave your rig in plain sight. It, too, is an open invitation to the thief. Also, make sure any important packages are stowed in the trunk because a thief will, many times, just want to get inside to get those packages.

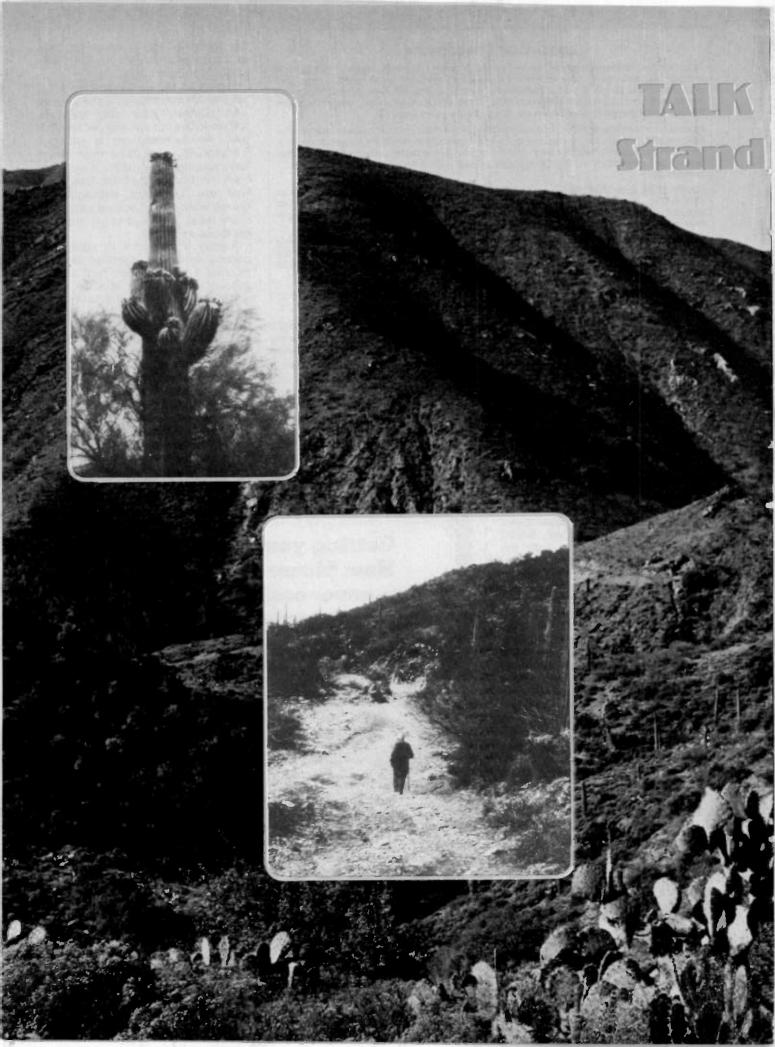
Always try to park in supervised parking areas or supervised garages. At least if a thief strikes he'll have to account to someone why the car is moving and prove he's the driver. Also, take the parking check. If he's going to get the car, he may as well pay for it. But all flippancy aside, it will make the attendant ask questions.

When parking at night try and leave your car near a light and a well-traveled route. It will give you that extra measure of protection.

These are just a few ideas of how to keep your CB from getting ripped off. There are probably many more out there and you're invited to send them in to S9. We may well publish more of them in the future.



CIRCLE 38 ON READER SERVICE CARD



# "DON'T WALK, YOUR WAY OUTP ed in The Desert

**By Ralph A. Fisher Sr.** 



One fine April Sunday displayed a warm, bright blue, cloudless sky day over Arizona with a promise of high temperatures in the mid-eighties as my companion Earl Mericer picked me up at seven in the morning for our planned desert trip to Reymert Ruins some sixty miles southeast, for a day of shooting color film at our early Spring cacti bloom.

Earl, then 68, recently retired after selling out his "EARL'S CAMERA SHOP" of many years service to the public in Phoenix, Arizona, he drives a four-wheeled leep wagon that travels us over the desert hunting for quail, javelina or just shooting pictures.

Me! I am a 77-year-old retired Arizona Licensed Hunting Guide, plus freelance writer-photographer, and had mentioned to Earl one day in the camera shop of the old interesting gold mine ruins we had located one March day in 1947, while hunting wild boar. Now, the Reymert Ruins are just a ghost town

Earl, over the years had processed countless photographs of the ruins that illustrated more than twenty articles and stories I had had published of Reymert. "I want to go along on some future trip," remarked Earl on one visit.

This was the day for Earl and I to visit Reymert Ruins . . . it had been planned since his retirement. We headed for Florence Junction, the old Johnson goat ranch and rugged Reymert Canyon out on the vast desert area near Mt. Mineral, the Picket Post, Ray and Reymert complete with many cacti species, greasewood, mesquite and where the coyotes keep company with Mule deer, Gambel, quail, dove, lion and range cattle.

It was during our month of March 1947, open javelina season that as a guide with a California hunting party we located these old ruins deep in the rugged desert of the old Crook National Forest. Later after much researching I found much of the history of the Ghost Town of Reymert.

From the old Stage trail from Ray to Phoenix, Arizona we drop off into a narrow, rough and sandy Reymert Canyon for the two mile jeep trail east to the ruins. Flash flooding often keeps the trail impassible except for a lost Desert Canary (Burro) or the four-wheeled vehicle such as Earl's leep.

Nearing the ruins we spotted a tall, rich green Saguaro cactus, fat from the winter rains and in full bloom with a crown of off-white flowers that offered good lens shooting with the 120 Rolleiflex. . .plus the fact that the cactus looked like a young pregnant green robed female standing there.

Earl coaxed the jeep off trail to park, cut the motor as we gathered cameras for some action . . . in the process we also located an old mine shaft and spent thirty minutes searching and shooting film.

continued

#### Upper Insert:

Tall Saguaro cactus and many other cacti were in full bloom, the reason for our April 18, 1976 desert trip.

#### Lower Insert:

It is a rough and rugged two mile trail from the ruins back to the old stage coach trail and to the main highway seven more miles north.



Earl Mericer of Phoenix, Arizona companion of the author poses in Reymert Canyon by the old Reymert Rulns as he attempts to get help by calling out on a W-T.

We returned to the parked jeep. . .enjoyed a cool drink and decided to drive to the ruins, enjoy our lunch and rest, but the jeep decided otherwise. The motor would not START No Way. . .with no amount of coaxing.

"I brought along my walkie-talkie and I have my mobile rig inside, so, I'll call out for an assist," stated a concerned Earl. He pushed a few buttons on the CB radio and begged for someone to come in, . . . without any sign of an answer... "Mountains are too high on both sides for me to get a message out!" remarked my companion.

For an hour we called out. . .all we got back was silence except for the song of the cheerful Cactus Wren singing to us from the top of our pregnant Saguaro.

"Let's walk out to the State trail and old goat ranch, closer to the main highways, where I can use the walkie-talkie!" suggested Earl.

We strapped on the canteens, took a sandwich, hung the cameras about our neck, locked the jeep and headed out, only good feature in our favor that day. . .the trail was all down hill going out.

We sweated as the temperature hit 92 degrees..."Emergency please, come in!" but the hills were still to high. Only two miles, but what a rugged two miles.

Two hours later, at 2 PM we sank beneath the welcome

shade of a husky old Mesquite tree along the old Stage trail, took our first drink since departing from the stubborn Jeep and..."Emergency, come in please!".

Earl talked that walkie-talkie to death for several more minutes....it spooked a doe deer resting beneath a cluster of Morman Tea across the trail, and we watched her slowly blend with the cactus and stunted growth on the low ridge of the mountain.

"I hear you loud and clear...where are you?...and what is your problem?...came back a welcomed reply over the W-T.

Earl's radio is a two watt job, two channels, license required.

"We are stranded in Reymert Canyon off the old Stage Coach trail, with jeep trouble and need assistance to get the stranded jeep out!!!

"I am on my motorcycle headed for Florence Junction from Ray, over that trail, should pick you up within twenty minutes, sit tight and I'll see you soon."

We waited, shot some more film at Prickly Pear in bloom and ate our lunch.

A young man on a dusty bike halted by the Mesquite and asked.."Are you the rock-hounds in need of help?"

We explained our plight as we introduced ourselves and offered the rider a cool drink from our canteen.

Earl requested that he ride to the Junction cafe and place an emergency call to the local insurance company...this was done, and thirty minutes later Earl got back this message: "We refuse your request, will not travel off the paved high ways into the desert to assist." "Any suggestions" asked the motorcycle rider.

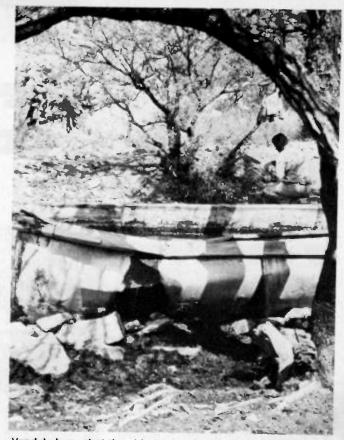
"Yes...tell the insurance company that their twenty-year policy holder has just resigned membership and will be in touch in the morning".

Mr. Mericer...please hang on, stay put, I live in Mesa, will ride home, get my four-wheeled drive pickup and bring you out, soon."

That is just what the young man did...That is the way it was! The Jeep had a flat spot on the starter shaft, when towed out and parked by the Mesquite tree to gather our equipment, Earl turned the key and the Jeep purred like a satisfied Mountain lion...Our good Samaritan would not accept payment, but did look over Earl's W-T with care and decided that he might purchase one, but did accept a cold beer at the Junction cafe, a few minutes later.

He requested no publicity, but told us he was manager of a stock room at a foreign car dealership in Mesa...and as he departed bid us goodbye with, "I might be stranded one day and you can talk to me via your W-T.",...but "Talk Your Way Out...Don't Walk!"...He had talked to us via a rig mounted on his bike.

Grateful! We sure were, and glad that Earl decided to pack along the W-T that eventful Sunday morning...later, we did go back and shot the ruins.



Vandals have shot the old metal water tank full of holes. It has since been replaced by a rock man-made tank that serves the range cattle and area wildlife for miles around.



... Use S9 READER SERVICE.

S9 • October 1979 • 23

My family and l enjoy camping and make great practical use of our hand-held and mobile units. The only drawbacks we have encountered in the portable use of CB were related to the fact that we relied on the car antenna for base operations, and the cars electric system for power.

While I have no complaints about the 48-inch fiberglass top-loaded stick on top of our wagon. . . a base station it ain't! A loaded half-wave whip just does not give me the results of a half-wave dipole, nor is it as high above the ground (9 feet as opposed to 20). And although our AM/SSB rig features built-in AC/DC capability, the 12 volt system of the car doesn't seem to give the signal quite the "kick" that the camp-site AC hook-up does.

One other problem we've had has been logistics. I mean that while the back-packers are trotting down some verdant trail, hand-held in hand, inevitably someone back at camp decides to go for a drive. . .and, presto, no more base station.

Two or three camping trips after we had gotten our radios, we began to note these shortcomings. A portable base station antenna seemed to be the answer. It didn't take much research to discover the portability and simplicity of the di-pole.

#### SIMPLE BUT EFFICIENT

There's a lot to be siad for the halfwave di-pole antenna. Positioned vertically, it features a comparatively low angle of radiation toward the horizon, a fine quality for a CB base station whose primary mission is to talk locally from point "A" to point "B". For the project builder it is a very tolerant design that works well at all CB frequencies.

The problem was that the traditional home-brew wire and insulator version had to be strung from a convenient treelimb to the ground in order to be vertically polarized. This tended to limit installation to places with trees at least 18-20 feet tall. Not only that, but foliage and associated moisture tend to absorb RF power . . .and what happens when you camp in open country? So now we know that our simple, portable di-pole had to be rigid as well.

Though we've never tried it, I suppose you could take a commercially available di-pole and adapt it to this use. But it's fun to make your own.

To make our own, we had to be able to "Hang" that 17 foot wire and insulator concoction easily, simply and anywhere... so we hung it inside a piece of PCV plastic pipe!

#### A FIRST TRY

Actually, our first one used two 10 foot peices with a "T" connector acting as a slip joint between them. This allowed easy access to the antenna feed-point

## Build The Walking Stick Base Antenna

### By Dave Badgley



Chris shows antenna stowed in luggage rack.

and provided an anchor point for the three "stays." It also permitted the whole rig to "break" in the middle and fold for easy luggage rack stowability without having to completely disassemble the antenna.

Construction is accomplished with a few hand-tools, very little technical know-how and should take less than an afternoon if all supplies and tools are at hand.

#### Here's How

First, let's build the antenna. Get a coil of stranded copper antenna wire long enough to cut two pieces exactly 8'7" long; three "egg" insulators; three PL-259 male co-axial connectors; one PL-258 double female co-axial connector 25 feet of RG-59/U coaxial cable (Note: di-pole antennas have a characteristic feed impedance of 72 ohms... most CB antennas are designed for 50 ohm cable. Hence, for optimum performance, RG-59/U (72 ohms) is recommended), and six 8 or 10 inch plastic wire-ties, such as electricians use to bundle wires together.

1. Cut two pieces of wire exactly 8'7" long. Tin each end about two inches back with solder. Using your needle nose pliers, form a loop of the tinned ends about ¼" in diameter, and solder it together.

2. Pass a plastic wire-tie through the loop and also through one of the holes in an egg insulator. Draw it up as tight as you can. Attach one insulator to one end of each wire element in this manner. The remaining free ends are joined in like manner to the opposite ends of the third insulator. At no time and in no way are the two elements to touch each other.

3. Make up a one-foot length of RG-59/U cable with a PL-259 connector on one end. Strip back about 3" of insulation from the end that has no connector. Split the copper braided shield down one side being careful not to cut through to the center wire. Peel it back and twist it into a single strand. Tin this strand and insulate all but the last one inch.

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4. Remove one inch of insulation from the end of the center wire and tin this wire.

5. Solder the shield to one element at the middle insulator and solder the center lead to the other element of the antenna.

The antenna is now ready for testing. Suspend one end from a tree or roof peak. Make sure that the first eight feet of coax goes out from the antenna at 90 degrees to the vertical elements. Insert SWR meter in usual position and check. SWR should be extremely low.

Now to prepare the mast. From your plumbing supply, purchase one 20 foot section of  $1\frac{1}{2}$ " (I.D.) white rigid PVC pipe (your egg insulator should just fit inside), one T-connector, one end cap and a small can of PVC cement. From the hardware store, get 60 feet of  $\frac{1}{2}$ " nylon rope, three 1" x  $\frac{3}{8}$ " S-hooks, three small snap hooks (as on a dog's leash). And, if you don't have it at home, a small piece of  $\frac{1}{2}$ " masonite or exterior plywood, and three tent pegs. Remember, in all of your purchases to select for outdoor wear and weather.

Cut the PVC pipe into two equal lengths. Slip the cap over one end of the piece that will hold the upper element of the antenna (do not glue) and drill a 3/16" hole in one side just below the cap. Slip the T-connector on the other end of the same pipe.

About six inches from what will be the bottom end of the lower pipe section, drill a 3/16" hole in one side.

The mast is ready now for the antenna elements. Cut two pieces of ¼" nylon line and tie one to each to the unused hole on the end insulators. Remove the PL-259 connector from the one-foot lead at the center insulator. Remove the cap and T-connector from the top mast section and slide the antenna in through the top, starting with the lower element. When all you have left in your hand is the nylon cord attached to the top insulator, slip it through the 3/16" hole from inside, and tie a knot on the outside.

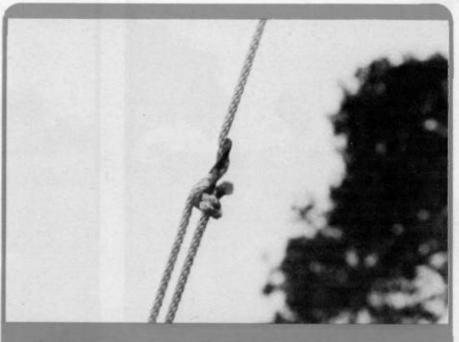
Now, thread the one-foot center lead out the side of the T-connector and remount the PL-259. At this point you may permanently cement the T to the upper pipe; but never cement down the cap! Also, never cement the lower mast section to the T-connector, or it's goodbye portability. Finally, pass the lower element down through the lower mast section, securing the lower insulator as you did at the top.

The three stays or guys, are made of three equal portions of the remaining ¼" line. Fasten a snap hook to one end of each piece. A buckle for adjusting tension on the stay is made by closing the S-hooks to form figure-eight hooks. Thread the free end of the line through both eyelets of the figure-eight, slide the figure-eight up a few feet and secure the free end of the line to the nearest end of the figure-eight.

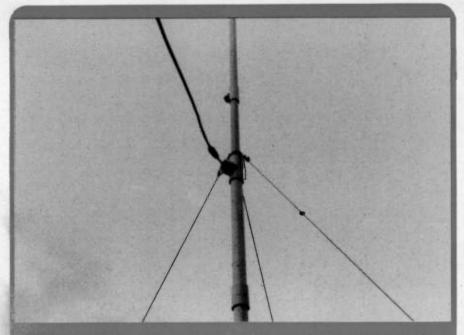
Next, make the mast attachment ring for the stays out of the ¼" masonite or plywood. Drill or cut a hole just large enough to easily slide over the PVC pipe, in the center of a four inch circle. At three equally distant points around the circle, about ½" in from the outer edge, drill a hole large enough to accommodate a snap hook. Remove the cap from the upper mast section (temporarily untie the knotted ¼" line protruding from the side) and slide the attachment ring down until it seats on top of the T-connector.

The last step is to fit lower and upper mast sections together, adjust the length of the ropes tied to top and bottom insulators so that the antenna elements are reasonably un-kinked (but not pianowired taught!).

All set? Let's peg it down. Snap those lines onto the attachment ring, adjust the "buckles" so that about 1/3 to 1/2 of the line doubles back on itself, thus providing a handy loop for your tent



Metal S-hook, when closed into "figure-8" makes a buckle for antenna guys.



Guys & co-axial at feed point. Snap-hooks attach to three rope loops spaced evenly around mast, just above "T" fitting.

pegs, which should be spaced equal distances about the mast, and six to eight feet out from the base.

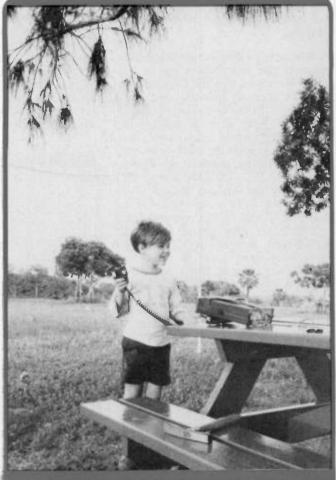
Now is a good time to remember (as I almost didn't) to put those two remaining PL-259's on the remianing 24 feet of RG-59/U. The PL-258 double female connector can be more or less permanently installed on the end of the short lead from the antenna feed point.

A few last notes: Although the best SWR is obtained by taking the lead out at right angles to the feed point for about 8 feet, tying it down along one of the stays will be sufficient angle to keep your SWR down low enough to operate quite efficiently (about 1:2).

This design has weathered storms with gusts up to 50 mph, and there's virtually nothing to damage should it fall. Furthermore, it's so light-weight that if it fell on you, it probably would do little damage.

It is possible that a more convenient break-down size could be obtained by cutting the mast into four sections instead. But however you cut it, its impressive appearance (20 feet is as high as the eves of a two-story building) and impressive performance, earn it a permanent space in my luggage rack with the rest of the camping gear.





Son, Carl, at Pinto sideband just before coax was connected to radio, showing antenna in background.



Tomcat answers some of his more interesting mail in this column from time to time. Address your letters to Tomcat's Mailbag, S.9 Magazine, 14 Vanderventer Ave., Port Washington, N.Y. 11050.

#### **RM-3317 LACK OF INTEREST**

I agree with the basic concept of a no-code "hobby" service at 27 MHz but I do strongly object to the idea (in RM-3317) that such a service would become part of and administered as a branch of the Amateur Radio Service. I do not see the possibilities of new exclusive hobby frequencies at 27 MHz being a stepping stone to getting a ham license of a higher grade. I, and many other Sidebanders are happy being part of the CB service. We would like to see the type of operating benefits offered in RM-3317, but within the structure of the CB service, and not as a part of the Amateur service. While doing this would be easier for the FCC (hams administering the exams), we do not feel that we want hams policing our frequencies-they have their own problems to look after. Perhaps this is one reason why RM-3317 did not provide the FCC with large volumes of mail in support of RM-3317.

> Jim, ER-1/0-Moonshine-36 St. Petersburg, Fla.

What you say makes a lot of sense Jim, and you aren't the only reader to express these opinions. It doesn't seem likely that the FCC will ever have enough interest in or understanding of the CB service to ever set this thing up right, if they ever get around to doing it at all—so I guess the authors of RM-3317 figured that, other pleas for FCC relief having failed, this was another approach. However, I agree that there is a strong possibility that the favorite and often stated theory that all CB operators are hopeful of becoming ham operators may just be all wet!

#### SPY IN THE SKY

A couple of issues back you gave a reader the frequencies of Russian satellites. Could you let me know the frequencies used by the Japanese "Jiki'ken" and American "KC-11" satellites?

> Mike O'Bannon, Galveston, Texas

Jiki'ken is a cinch, it's on 136.695 MHz, just past the high frequency edge of the VHF aero band. Since the satellite transmits only on command from an Earth station you will have to be within range of the gizmo when they trigger it on the air if you expect to hear it. On the other hand, KC-11 is a super hush-hush CIA spy-in-the-sky satellite-and even though the Russians know all about the thing (they purchased the operating manual from a CIA employee who is currently in jail)-the operating frequency is still "closely guarded." I don't know from who, however!

#### WE'VE GOT YOUR NUMBER

You never see much information around on the "number" codes that get announced over CB. For instance, is "73" supposed to be "short" for "10-73," the way many operators just say "that's a 4" when they mean "10-4"? If so, I can't find 10-73 on a chart of 10-Codes. Same with "88," there isn't any "10-88" on my 10-Code chart. Yet most operators like to say these numbers to one another, or a shortened form like "3's and 8's" or even a very general form such as "good numbers." I, for one, don't find these numbers to be very good; only confusing! What's worse, I've tried asking other operators to explain the exact meanings of these numbers and they all tell me that they don't have any specific meanings, but that it's "traditional" to announce them at the end of a contact. Somehow it doesn't make any sense, and I feel pretty silly telling people things all the time without any more reason than "it's traditional." There must be more to it than that!

> THE SOUR GRAPE, Modesto, Calif.

The terms 73 and 88 in no way relate



to the 10-Code, and existed (along with other similar code numbers) for decades before the 10-Code came into being. They date back to the early days of landline telegraphy where brasspounders realized that messages could be sent faster if the most commonly encountered words and expressions were translated into 1 or 2 digit codes. So the word "where" became "4," while "wait" turned into "8," and "I understood" translated into "13" in telegraphy lingo. Many people are familiar with "30" (the end) which also comes from this code. The expression "73," is from these same roots and means "best regards," while "88" represents "love and kisses." I seriously doubt that most of the people who give one another "3's and 8's" realize the exact meanings, as you have speculated; for if taken at their specific meanings then it casts a different light on the frequently heard CB parting salutations guys like to wish one another on the channels. I know that every time some guy tells me "3's and 8's" I invariably go back and tell him that I'll happily accept his best regards, but will pass up on his love and kisses. Nobody ever has any inkling of what I'm talking about-so maybe tradition has actually won out. Perhaps at this point "3's and 8's" has become a unique CB term which is different in sound than 73 and 88, and therefore something with it's own undescribable meaning, like "good numbers."

#### DOUBLE IDENTITY

I've read and heard much about people who are setting up their own unlicensed broadcasting stations, including making up their own callsigns, but this one takes the cake. I can hear a station using a regular CB callsign "KACY-1520" while playing pop records, and right there up at the high end of the AM broadcasting band. This station is a real powerhouse too, guy must be running hundreds of watts. But isn't he pushing his luck by announcing his CB callsign?

> PROSPECTER, Gila Bend, Arizona

Chances are you're hearing legit broadcaster KACY in Port Hueneme, Calif., on 1520 kHz at times when they announce their callsign in combo with their frequency. Running power? A sizzling 50-kw! They'll probably be happy to get a reception report from you; their address is P.O. Box 1520, Oxnard, Calif. 93030. I suggest that you don't mention that you had mistaken them for a boootleg CB station!



#### WATCH THIS

An interesting concept combining communications technology and the current interest in precision wristwatches has been overlooked. Instead of watch companies spending so much effort on achieving accuracies of microseconds per month, etc., etc., why hasn't someone thought of designing a wrist-sized radio receiver tuned to one of WWV's radio frequencies so that the user would have a time signal as accurate as possible, there would be no moving parts to break, and it would offer the unique feature of announcing the time by voice. This seems to be such an obvious idea that I can't imagine it's not on the market!

> Stewart Hunnicutt, Casper, Wyoming

A novel idea. As far back as the late 1920's the Elgin Watch Company was speculating on the combination of a timepiece and a radio receiver, although their idea was for a standard timekeeping mechanism to be automatically regulated by daily signals from a distant radio transmitter. While the bulkiness of radio receiving gear in those days might have made the idea feasible only for clocks, they did look towards the day when the idea might develop into something which could be used with "pocket watches." Your idea of letting a timepiece be simply a WWV receiver would have to overcome problems such as radio propogation peculiarities which would not permit constant reception of WWV nationally on whichever operating frequency the "watch" would be designed to use, and the problem of where to put the antenna needed to pick up the signals. Also, WWV's present operations include voice announcements of the time only once per minute, so if you wanted to know what time it was you might have a 1-minute wait of sitting

there with your wrist pressed up against your ear listening to the WWV time ticks and brain numbing audio tone. The idea itself has lots of merit and certainly looks like something which will be developed for future use!

#### WHAT IS THERE TO GAIN?

Right now I'm using a Wilson Super Laser 500 beam. This antenna has 18 DB gain over isotropic. I was wondering if I stacked two Super Lasers to get 36 DB gain if the improvement will make a worthwhile difference.

Debbie G., Colorado City, Colo.

It will certainly make a worthwhile difference, but you won't be jumping from 18 to 36 DB gain. It doesn't work that way. You'll get 3 DB more forward gain (21 DB) which is the same thing as doubling your signal. This will move your signal up 1 S-unit on the receivers of other operators. You'll also find that your antenna will have better rejection.

#### SIDEBANDERS WHO TOOK THE BACK SEAT

I'm curious to know your reaction to the statement that Sidebanders, "...are being pushed around" and that there is some possibility of Sidebanders being "forced to again take a back seat in Citizens Band Radio." This quote was published in another publication and was attributed to "an HF International report." It turned me off!

> Lex, 42-USC-106, Buckley, Wash.

The only thing I can think of (if the statement was correctly quoted and attributed) is that possibly the group is referring to its own members, since they have been mentioned so frequently in FCC enforcement records.

The statement certainly would be far off the mark in any other context for it would imply that AM operators are receiving a free ride from Uncle Charlie in comparison to Sidebanders. While it is true that Uncle Charlie has been a bit more picky over Sidebanders, I would hardly characterize Sidebanders in general as being "pushed around." As I said. I could see where after reading FCC enforcement records over the past year or two they might well take such a paranoidal viewpoint, but most Sidebanders seem to think that they've got a pretty good approach to communications and do not take the defeatist attitude that they've been "forced" into taking a "back seat." It's a losers' type of gospel, and Sidebanders aren't losers; nor do I think that such a hangdog and sad-sack negative attitude represents a very healthy approach to the Sideband scenel

4

#### **DON'T BLACKEN THESE HOLES**

First they said aerosol cans were ruining the planet's ozone layer and letting harmful radiation in, and now they say that maybe they had overestimated the potential dangers of aerosol. But what about the "holes" poked in the various protective layers of the planet by all of the satellites and space probes we are sending up? Doesn't this let in harmful radiation? Marcie Golden (MINNIE MOUSE), El Paso, Texas

The holes being "poked" aren't from the object themselves passing through anything, like a bullet going through a board. Actually they are caused by a chemical reaction of the exhaust systems of some rockets when they pass through the ionosphere (that isn't the ozone layer anyway). To confirm this, experiments have been conducted by "seeding" the ionosphere in order to cause these "holes" (about 30 miles wide) to appear. But, in addition to these holes being caused by rockets we are sending out, they are also caused by the so-called "solar wind" (gasses from the Sun which radiate into the solar system) which causes the "Northern Lights" and also perhaps as many as 20 of these ionospheric "holes" every day. Did I hear someone ask if these ionospheric "holes" adversely affect the quality of life on this little blob of mud we call Earth? Well, only if you are a fan of skip-since they do cause radio propagation disturbances on communications frequencies for the approximately 30-minute existence of the "hole" before it "fills in." On the other hand, radio astronomers have found these "holes" to be "windows into

#### **A MEATIER METER**

It's probably going to give CB'ers in rural areas a laugh but it's a curse living in a crowded metro area which is wallto-wall with "locals." There are no less than 4 other CB'ers in my own apartment building, and several in each of the other buildings on my block. It's not only a question of severe splash and getting wiped out from all of these people, but every time one of them keys up his mike my poor Smeter pins over so hard that it nearly knocks my rig off the table! Any suggestions for accomodating these super signals on my rattled S-meter would be appreciated!

> PAPA LOWDOWN, Chicago, III.

Get it recalibrated to read out in the Richter scale instead of S-units.

#### A WEIGHTY PROBLEM

Recently I purchased an electronic scale, only to find that the instructions say to adjust the calibration for a readout of the correct weight. Pretty clever, except that they don't bother to tell you how to find out what the correct weight of something with your scale uncalibrated!

UNCLE SHERMAN Circleville, OH

I'm surprised that the instructions are so incomplete, but if you're really stumped you can probably bring the infernal machine to any office of the state agency governing weights and measures and ask them to test it for you (they may charge a small fee). Most ordinary bathroom type scales aren't very accurate anyway, and even if calibrated at one weight will quite possibly be out of calibration the further you get away from that reading. Unless your scale is the "load-cell" type (and most bathroom scales aren't), the measure is sure to vary somewhat depending upon where the weight is placed on the scale. In other words, if you've spent less than \$175 to \$200 for your scale, don't worry too much about pinpoint accuracy. Buy a 5-pound lead weight and adjust it vourself. If that won't give you a reading close enough to the truth to let you know whether or not your diet is

working, then your diet probably is a failure.

#### **BLOW ME DOWN**

I keep hearing about windmills that are supposed to be able to supply electric power, but someone ought to realize that all of the talking about it has generated enough wind to run windmills enough to power 2 large cities. Yet nothing is getting done about it. Is this ever going to be actually tried on more than a 1-house basis to see if the idea will work for a community?

> Martin Gotfried, Mankato, Minn.

It has been tried a number of times and does seem to be feasible, however it seems that they are still testing and tinkering around with the concept. The Dept. of Energy has one such windmill all set to spin on Block Island, off the coast of Rhode Island. The 500 Block Island residents, however have caused a delay in getting the thing (2 62-foot blades on a tower) going. Seems that Block Island is in a fringe TV reception area and many Block Islanders have complained that trials of the spinning blades are scrambling their TV pictures. A cable TV system is now being planned (at a cost of about \$700,000) to assure the residents of adequate TV pictures. It could be a long time before this little test gets completed!

#### **NOT WHIPPED YET**

I like the way the so-called twintruck type whips look mounted on each side of a vehicle. Also, I understand that this type of mounting arrangement offers increased front/rear signal directivity over a single whip mounted anywhere on the vehicle. The catch is that many people say that unless you can mount the whips with about 6 or 8 feet separating them then they look sharp, but any signal directivity benefits are lost. On the other hand, I see plenty of cars, including VW Bugs sporting twin type whips. Is there any way I can mount these on a standard size vehicle to take advantage of the signal pattern benefits?

> BIG BOOLA, Dover-Foxcroft, Me.

It's true that unless you can get a quarter-wavelength (about 8 feet) between the whips you can't take advantage of the primary idea of the antenna system, which is increased front/rear signal directivity. On a standard sized car you might still be able to work this out if you could mount one antenna on the right front fender, and the other antenna on the left rear fender. If this arrangement gave you the optimum spacing you'd have a good shot into the oncoming lane ahead of you, just right for "over the shoulder" reports. However, you'd have performance at the expense of looking like "Charlie Convoy, Official Trucker." You'll have to decide for yourself which is more important to you.

#### **18-WHEELS ARE NO BIG DEALS**

Somehow the 18-wheelers think they "own" Channel 19, and a 4wheeler using the Interstates is frequently put-down by these guys with their phony corn-pone dialects. I can appreciate that they like to see themselves as modern-day cowboys (every dreary job requires a bit of glamorizing to make it interesting but I can remember when being called a "truck driver" was anything but a compliment, implying a person who is a big, stupid, rude, lug unsuited for any job which required even minimum brain power). I can also appreciate that as "professional drivers" they have a better safety record than 4-wheelers (of course they're always practicing and their vehicles appear far more suited to surviving an accident than most 4-wheelers). But I still don't get the reasoning behind why they are prone to being so downright abusive and nasty to 4-wheelers using Channel 19. Do you? And how did they "get" Channel 19 "for themselves" anyway? Joe Shlaminski,

Newark, Del.

Yes. I've heard some downright rude 18-wheelers on Channel 19, but I can't say that every 4-wheeler I've heard on the channel is an absolute gem either. I've felt that the majority of 18-wheeler libes at 4-wheelers are either well deserved or else are more in the nature of good-natured kidding than nastiness. Originally truckers primarily used Channel 10 (plus a few others in specific areas), however the penchant truckers had for footwarmers eventually caused Channel 9 monitors to start complaining that they were bleeding over from 10 to the emergency channel. Along about 1975 most truckers started coalescing on Channel 19, which they had hoped would get the Channel 9 groups off of their case and also give them some "privacy" from the growing number of 4-wheelers who had started pouring onto Channel 10 in order to get Smokey reports and listen to the colorful lingo. But the huge surge in

CB popularity, spurred on by songs and movies about CB-truckers, plus a huge media campaign to reinforce the image of truckers as modern-day romantic/macho free spirits only made CB'ers all the more intent upon identifying with these guys who were starting to enjoy their new image. While it was true that they would have preferred to have their own "private" communications channel on 19, they seemed equally pleased with the attention they were getting from 4wheelers on the channel, often looking upon them as sort of "an audience" for their shtick. And the public loved every minute of it. These days I think that the novelty of "putting up with" some of the chatter of 4-wheelers has worn a bit thin around the edges and 18-wheelers would happily relinguish the honor of sharing Channel 19 with nontruckers—so perhaps there has been a drop in their tolerance for certain types of chatter going out over the channel. This has possibly come about by their current militant stance on things such as the speed limits and the price/supply of fuel; they see their plight with more seriousness than a few years back when they were into the happy-go-lucky "cowboy" scene for the entertainment of the adoring "goodbuddies." Many 18-wheelers have abandoned Channel 19 as their regular on-the-road monitor channel, seeking out quieter pastures. Some bootleg on FM over the 2-meter ham band (they have "their own" frequency), while others have gone up above Channel 40 into the "outbanding" frequencies (27.805 has been noted being used 18-wheelers, as are several other frequencies above/below CB channels).

whether the federal government takes all of this seriously or if they are just humoring the public with their nowdiscontinued "Project Bluebook" program. Have they ever taken any really "official" recognition that UFO's really do exist—or not—or what?

> Debbie Manowski, Orange, Conn.

If your definition of a UFO is an object zooming around up there in the wild blue yonder, and we know that it's really there but it's unidentified because nobody knows what it is or who's responsible for it being therethen, yes, the government does believe in UFO's and there's documented proof. In the NASA log book which keeps track of all objects orbiting the planet, plus all space probes, and other such trinkets, we come across two most interesting objects, numbered 2429 and 2430. Basically, NASA doesn't know what they are or how they got there, but they've been carried in the NASA computer since 1966 as "unknown" objects. The only possible explanation NASA can offer as to what they might be is "debris" which can't be tied into "any launch or country of origin." So, that would certainly seem to me to be official government recognition of UFO's-they're flying around and they're objects, and most definitely they're unknown! But that seems to be about the only real "proof" that is available to the public-just these two objects recorded in NASA's computer. Everything else is shrouded in a cloud of suppositions, guesses, denials, coverups, and (I suspect) little white lies!

#### ONE GOOD TURN DESERVES ANOTHER

During a recent rainstorm my antenna rotor decided to call it quits. My beam is atop a 40 foot tower and now points to the east. There is no easy way to get to the top of this tower to tinker with the rotor mechanism. How about some thoughts on the best way of coping with this problem. If you could start me off with the right approach I can take it from there. Ed, VICTORY 7.

Burnt River, Ont.

For starters, forget about talking to stations north, south, and west of you.

#### NOBODY HERE BUT US SPACE DEBRIS!

Have you ever been able to find out what is going on with all of this "UFO" business. I enjoyed the story you ran on the subject, but I'm confused as to

#### SOMETHING'S FISHY HERE

Congratulations on your choice of "Stan" Stanbury for conducting the DX KORNER column. I've been a Stanbury fan for years now, his listening tips have tuned me in on some of the world's most interesting and far-out radio transmissions. By the way, I've noticed increased activity on 3340 kHz, which has been the communications frequency for the Pacific area Russian "fishing trawlers." Take a listen and see if you can notice more activity than in the past. What's going on?

> S. R. Rendazzi, Jennings, Mo.

Your increased trawler activity coincides with a step up in Russian "fishing" activities on the Pacific side of the Panama Canal. It's a "sensitive area" and what with the general unrest in Latin America of late, it isn't really an unexpected development. They always seem to "fish" where the action is. And thanks for the kudo's for Stanbury, we kinda like his stuff too!

For Information About Our Advertisers ...

# **ON THE COUNTERS** S9'S MONTHLY PRODUCT REVIEW

#### NEW 40-CHANNEL, REMOTE HIDEAWAY, MOBILE CB RADIO

Cobra Communications, Dynascan Corporation, has introduced a new remote hideaway mobile radio to replace its earlier remote Model 63GTL.

The new model, the Cobra 66GTL, is a full-featured AM mobile CB with all the controls conveniently located in the microphone. These include: LED channel readout and the "UP-DOWN" channel selector; ON/OFF/VOLUME; SQUELCH; RF GAIN; ANL (automatic noise limiter); and the OFF/CH 9 switch. Use of this latter switch permits instant selection of emergency channel 9 as the tuned-in channel, or by turning this switch off, the user reverts to the channel previously selected by the "UP-DOWN" channel selector.

The size of the 66GTL chassis is 7-3/16 x 5½ x 1%". It

#### **DETECTING DEVICE**

1

An all new detecting system sets up an adjustable electromagnetic field in a driveway, or any vehicle passage area, to detect vehicle entrance. Upon sensing, the system will activate outside lights and provide an audio alert signal.

The system can be installed in less than four hours time. A low voltage probe is buried next to the driveway (pavement or roadway is not disturbed), and the electronics can be placed inside the premises, garage, house, office, commercial area, etc.

The system is easily installed in residential and commercial applications. The product effectiveness is further complimented by its price range of less than \$350.00 installed; making it within the purchasing power of most applications where vehicle detection and annunciation is desired.

The Cartell is unique for residential applications, parking lots, drive-in windows, vehicle counting,

#### METAL DETECTOR

Searching for hidden treasure or lost valuables is fun and easy with the Micronta Metal Detector, new from Radio Shack.

The new metal detector is said to be ideal for finding lost coins, relics, jewelry, keys, hardware or anything metallic. It works equally well at finding things under water, wood or soil.

Features include a water-resistant 8" search coil



can be mounted on the firewall, under the front seat, or in the trunk. The remote mike is a plug-in type, and can be easily and quickly removed from the car when leaving it.

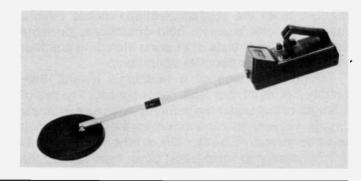
Mark number H01 on Reader Service Card.



traffic control, cemeteries, used car lots, service stations, etc. Vehicles and trucks leaving a protected premise will also activate the Cartell, thus doubling its use-effectiveness for truck terminal applications.

For full information, write: Marketing Department, Preferred Security Components, Inc., 1020 Stony Battery Road, Lancaster, PA 17601.

Mark number H02 on Reader Service Card.



with a Faraday Shield to eliminate false indictions, a ferrous/non-ferrous control which optimizes the circuit for finding magnetic or non-magnetic objects and a large, easy-to-read meter and adjustable audio alert.

The detector has separate volume, peaking and sensitivity controls, a built-in speaker and earphone

#### TILTABLE GUTTER CLAMP

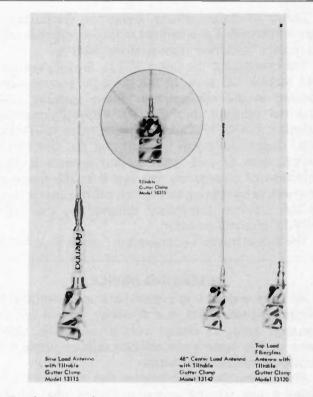
Antenna Incorporated has introduced a Tiltable Gutter Clamp for CB antennas, which is available as an accessory or in combination with 48" Center Load or Base Load stainless steel antennas or a Top Load Fiberglass antenna.

The Tiltable Gutter Clamp (Model 18315) which utilizes a new clamping principle, mounts on all vehicle gutters, even the flat strip gutters, on either the right or left side. It features easy, one hand operation, whereby the operator pushes up on the black knob and moves the antenna into one of five positions to avoid garage doors and other lowclearance obstructions. The mount is made of rustresistant stainless steel.

In addition to its availability as an accessory, the tiltable gutter clamp is also available with three different 48" Antenna Incorported CB antennas. The Center Load Antenna (Model 13142) is made of stainless steel with center-loaded coil providing shorter overall length for a low angle of radiation. The Base-Loaded antenna (Model 13115) has a stainless steel whip and spring with the base-loaded coil, attractively weatherproofed in a contemporary white jacket. The Top Loaded antenna (Model 13120) is made of heavy duty insulating fiberglass which is impact-resistant and helps protect the signal against precipitation static.

All of the antennas are provided with 10 feet of RG-58/U coaxial cable and PL-259 connector. jack, and an adjustable shaft that extends up to 36". It requires 6 "AA" batteries. Weight is only 2 lbs., so it's easy to carry and use without tiring, according to Radio Shack.

The Micronta Metal Detector is available at Radio Shack stores and participating dealers nationwide. Mark number H03 on Reader Service Card.



For further information on these antennas, and on all Antenna Incorporated CB and Iand mobile communications products, contact Antenna Incorporated, 26301 Richmond Road, Cleveland, OH 44146.

Mark number H04 on Reader Service Card.

#### MODEL LT-1 MODULAR TOWER

Lunar Electronics announces a new line of unique towers. These towers, manufactured in Lunar's San Diego plant, are all aluminum angle pieces, which bolt together forming a sturdy structure capable of supporting considerable antenna arrays. The modularity of the six foot sections makes them a natural for site surveys, field operations, portable communications tests of all sorts including amateur radio EME (moonbounce) operations.

Taking advantage of a building's height, they readily mount on roof tops, flat or peaked. The use of a length of 2x4 under leg pairs provides an extremely simple, yet very effective mount for the tower. Since it must be guyed, no bolts, nails or other requirements are necessary to installation other than setting the



For Information About Our Advertisers...

tower on the 2x4's. The 2x4's additionally serve to distribute the weight over several roof joists.

These portable units are readily UPS shipped, and may also be carried as luggage on any airline. The construction is not unlike a childhood toy erector set, with each module bolted together with supplied hardware. Optional stainless steel hardware is also available (S suffix). Rotor and thrust bearing mounting plates are included in the basic tower package (model LT-1) which yields an 11 foot structure when erected. The 6 foot add-on modular sections (model LT-2) increase height up to nearly 30 feet.

Their small size and portability lends their use in

field service as support structures for wind driven machinery, such as generators, compressors and other wind driven blades. For installations of semi to permanent durations, weatherproofing similar to an epoxy-base paint should be applied. Semiannual inspection of all hardware is also recommended.

Since the tower is built from angle pieces, it forms its own ladder when erected and guyed. The base spans 43 in. square, and the tower sections are 9.5 in. square. Weighing approximately 55 lbs. for base and lower section, and approximately 22 lbs. for each additional section, installation is an easy two-man task.

Mark number H05 on Reader Service Card.

#### **INSTRUMENTS CATALOG FREE!**

Heath/Schlumberger has announced publication of its latest Instruments Catalog. This new catalog features Heath/Schlumberger's complete line of fully assembled and tested computers and peripherals and gives complete descriptions and specifications for their line of electronic test instruments. Included are Oscilloscopes, laboratory-grade Strip and X-Y recorders, Power Supplies, various Signal and Function Generators, Counters and a full line of Multimeters from analog to digital.

In addition, the publication contains a complete listing of Heath/Schlumberger Continuing Education Programs ideal for industrial training including AC and DC electronics, Semiconductor Devices, Digital Techniques, Microprocessors, Test Instruments and more.

For further information concerning the complete line of Heath/Schlumberger instruments, write for a FREE catalog to Heath/Schlumberger, Dept. 350-870, Benton Harbor, Michigan 49022.

#### **12 VOLT OUTLET BOX AND CIGARETTE LIGHTER**

Do you often need to operate two or more 12-volt accessories (like a CB rig) and at the same time use your cigarette lighter? Now you can with the new SHO-ME Outlet Box and Cigarette Lighter. The Model 553-3 has receptacles for three accessories and the Model 557-3 has two receptacles plus a cigarette lighter.

The Outlet Box can easily be wired into the 12-volt electrical system by using the two three-foot pieces of No. 16 wire provided with each box. Two mounting screws are used to fasten the six-inch box to the bottom of the dash on any car, truck, boat, tractor, or other vehicle.

Now you can use a variety of accessories such as spot lights, flashing lights, CB's, radar detectors, bottle warmers, rechargeable flashlights, or any other accessory requiring 12-volt power.

Should any accessory develop a short, the power is automatically interrupted with a 15 amp circuit



Mark number H06 on Reader Service Card.



breaker which will re-set itself when the faulty accessory is unplugged.

For more information write to ABLE 2 PRODUCTS COMPANY, 504 East Thirteenth Street, Cassville, Missouri 65625.

Mark number H07 on Reader Service Card.

#### **QUICK DISCONNECT ADAPTERS**

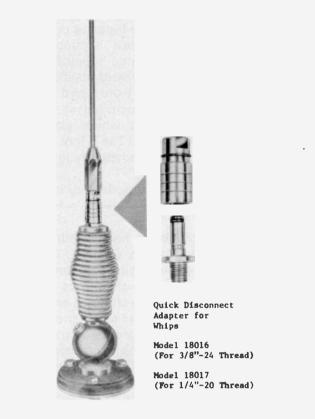
Two new Quick Disconnect Adapters, for fast, easy antenna whip removal to protect against theft and damage during car washing or garaging, are now available from Antenna Incorporated.

According to Antenna Incorporated, the adapters are unique because of their ease of operation and durability. Whereas most other quick disconnect systems utilize turn-and-spring action for whip removal, Antenna Incorporated says it uses a "hydraulic hose-fitting" design. Since it doesn't have a spring, the antenna whip won't loosen up with time, age and vibration. For long life, the adapters are made of triple-chrome plated brass which resists rusting.

The Model 18016 is designed for mounting any long quarter wave %", 24-threaded whip. The adapter can be used between ball and spring or spring and whip. It can be used on any bumper mount spring and whip, or for a 48" fiberglass antenna on a truck mirror mount.

The Model 18017 can be installed on any standard base loaded antenna, above or below the spring. It can also be used with any ¼", 20-thread antenna whip or spring, with placement between the spring and coil or between the spring and whip adapter.

For further information on these Antenna Incorporated Quick Disconnect Adapters, or their other two-way radio communications products, contact Antenna Incorporated, 26301 Richmond Road, Cleveland, OH 44146.



Mark number H08 on Reader Service Card.

#### **SBE, INC. ANNOUNCES NEW PRODUCTS**

SBE, Inc. has announced its product lineup for two new market categories—Signalling Products and Auto Sound—as well as additions to existing categories—Citizens Band and FM 2-Way.

In the signalling products category, the line of Select A Call by SBE models has increased, giving the company a variety of units to fit each of the following classes—Citizens Band transceivers, SSB equipment, FM 2-Way business radios, Marine radiotelephones, and amateur equipment. The various styles include both universal and tailored fit configurations as well as several highly advanced models with remote keyboard and display.

SBE's entry into the sophisticated high end Auto Sound Market features two new high power amplifiers—100 watt (Model V100) and 150 watt (Model V150). Both units feature system diagnostic capabilities, ultra high performance sound delivery through MOS V FET components and a lifetime warranty.

In the FM 2-Way market, the company unveiled a number of new models including a low-band VHF transceiver (SBT36), a mid-band VHF transceiver (SBT66), and a scanning remote control Head Kit (SB-TSRU). The company also announced its entry into the 2-Way FM Repeater Control Market with its modularized system including a microprocessor based Repeater Control Unit (RCU), the Data Recording Unit (DRU) and the System Command Unit (SCU).

In the Citizens Band Market, the company is introducing two new single sideband transceivers the mobile Sidebander V1/AFS8 and the Console V1/AFS8 base featuring selective signalling capability as an integral part of each basic unit.

SBE also markets a line of high end Marine Radiotelephone equipment including the SCV-9708 System with hailer, remote, handset and interconnect, and the popular SCV-7808.

All product lines are designed and developed at the company's Watsonville, California facilities, and with the exception of the Marine Electronics products, are manufactured there also.

Mark number H09 on Reader Service Card.



#### OCTOBER

Manassas, Virginia, Fifth Annual Jamboree & Campout, sponsored by the Citizens Radio Federation of Virginia, Inc. October 5, 6, & 7 at the Prince William County Fairgrounds located on Rt. 234 between I-95 and I-66. Trophies, Contests, Entertainment, Displays. For more information, write CRFV Jamboree, P.O. Box 291, Manassas, VA 22110.

**Electronic Jamboree** to be held at the Throgs Neck Country Club, 2665 Schurz Avenue, Bronx, N.Y. on Sunday, October 7th from 9 a.m. to 2 p.m. rain or shine. Free swap tables, new and used equipment. Everything for the electronic enthusiast. CB/AM/SSB and HAMS welcome. For more info: American CB Radio Club Inc., Post Office Box 321—Bronx, N.Y. 10469

Electronic Jamboree to be held at the Knights of Columbus Hall, at 186 Jericho Turnpike, Mineola, N.Y. on Sunday, October 21st from 9 a.m. to 2 p.m. rain or shine. Everything for the electronic enthusiast. Free swap tables, new and used equipment. CB/AM/SSB and HAMS welcome. For info write: American CB Radio Club, Inc. P.O. Box 321, Bronx, N.Y. 10469



Give To UNICEF This Halloween.





#### PACE 8016-World's smallest 40-channel full power CB

No other CB made in America has a chass s as small as the 8016's.—The Lean Machine. Only 514" from front to rear! Lean on the outside. Solid muscle on the inside. Thanks to state-of-the-art LSI technology, it's packed with these features:

- Maximum legal output power.
- Full 40-channel capability.
- Power microphone (built-in and adjustable to boost talk power).
- Giant 3" x 5" five-watt speaker (4 times bigger than most regular models).
- All-electronic antenna switching (el minates mechanical wear of transmit/receive relays).
- Automatic noise limiter (for true automatic functioning).
- Phase-lock-loop design (guarantees superb stability and cleaner, sharper output).
- 100% made in USA

You can squeeze The Lean Machine into just about any tight spot-glove compartments, under shallow dishes, on top of narrow shelves. But unit you see it, you won't believe how small it really is. The Lean Machine actually fits inside a cigar box!

One last feature you'll appreciate—the extra lean price!



CIRCLE 54 ON READER SERVICE CARD

The **Speech Processor.** So unique it's patented. So good its guaranteed to out-perform any microphone on any radio.

1210

#### CLIPS ANYWHERE WITHOUT A CLIP!

K

Molded four-pole internal magnet clamps instantly to any steel surface. Steering column, metal dash, roof top, or the side of your CB radio. No groping for your mounting clip.

#### PROCESSES SPEECH WITH A **COMPUTER CIRCUIT!**

It's its own computer-it autcmatically monitors your speech and adjusts it in micro-second Increments pumping so much db gain into your speech that you get 400% more power than a standard mike

#### 中的农村和农村和

#### Double Guarantee

#### **GUARANTEE I:**

GUARANTIEE I: The K40 Speech Processor is guaranteec 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 fail-ure. No exclusions. No gimmicks. For a full 12 months 12 months.

SOUND SENSITIVE 2 INCHES OR 2 FEET!

A microphone so sensitive it will select your voice and process your speech no matter how close or far you are from the microphone.

#### **TWO MICS** WITH ONE SWITCH!

Switch up for a highpitched transmission for cutting congested city traffic. Switch down for a mellow base in open. uncluttered rural areas.



**Pull the Processor directly** to your mouth and speak directly into the mlc. The Processor adjusts to your voice-and blanks out all the cab noise while you're speaking. Automatically.

#### **FRESH CHARGE** WITH NO **BATTERIES!**

Patented electronic storage system recharges while you listen to the radio. It provides a fresh electrical charge every time you squeeze the trigger. You never replace batteries.

## **A K40 PROCESSOR IS NOT A POWER MIC!**

All a power mike does is increase the volume going into the transmitter. That's why many dealers don't recommend standard power mikes with the new radios — they cause too much distortion. That's exactly why the K40 Speech Processor was developed. Hold it 1 inch or 6 inches away — even two feet away. It selects your voice, amplifies it to full power, and then eliminates clipping by holding the loud portions of your speech into the audible band. The PROCESSOR then selects and immediately amplifies the soft portions of your speech before it is fed into the radio. Only this process permanently prevents splatter — and still pumps db gain into all of your speech. That processed speech meets the FCC compressor limit of the new radios without distorting it into unintelligible garble.

FACT: All power CB and commercial processor mikes are battery powered. As the battery runs down, the performance of the microphone degenerates. We invented a way to eliminate that problem by inventing a capacitor circuit that recharges itself in less than two seconds. Not only is it better, but you never have to replace batteries.

#### Here's how you transmit more Here's the word "modulation" on an oscilloscope. See how it works.



### "MODULATION" with a stock mike

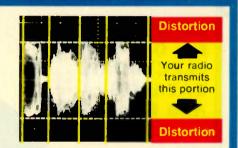
Soft portions of your speech like "SH" sounds and "N"s make tiny squiggles. Loud portions like "U"s and "A"s make big squiggles.

(Note: Reproduction of actual un-retouched photos of oscilloscope reading.)



### "MODULATION" with a power mike

Everything is amplified. That's why power mikes distort. All voice squiggles above and below the dotted line on the scope photo are clipped or distorted. The small squiggles get louder but vowels like the "U"s and "A"s get clipped you lose parts of your speech.



### "MODULATION" with a K40 Speech Processor

Only the small voice squiggles are selected and made big and easy to hear. Large voice squiggles are compressed (so they don't clip) and made denser. Your radio now gets all your speech—you transmit everything!

## Here's why you get more power

The bigger and denser the squiggle, the more power the mike puts out to the radio. That's how microphones work. Sounds like "A"s and "U"s generate the most power—"SH"s and "N"s generate the least power. The bigger and denser all the squiggles, the more power you generate to the radio. Now compare the photos again. That's exactly why the K40 is both clearer and more powerful than any other mike made.



#### It's really a truly new and different microphone

It's its own computer-it automatically monitors your speech, and adjusts it in micro-second increments. The modulation circuit is adjusted once by your Registered K40 Dealer, who adjust the internal modulation control to coordinate your voice with the radio system. Thumb wheel adjustments are gone forever-they are not needed. It's two mics in one. The K40 Processor has a simple switch that lets you kick out super highs for cutting congested city traffic, and a mellow base for uncluttered rural areas. It clips without a clip. The mount area of the microphone is magnetized so you can put it anywhere you want-fast and easy.

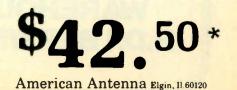
### THE PRICE

\*suggested retail. CIRCLE 1 ON READER SERVICE CARD

#### When you buy American you buy the best

American products made with American inventions are better. To prove it, we needed a micro-circuit that had constant power (a must in speech processing) so we invented a new battery that recharges itself when you release the trigger, never needs replacing, and gives your mike three full minutes of fresh steady current every time you pull the trigger.

The K40 is unconditionally guaranteed for 12-MONTHS—NO EXCLUSIONS —NO GIMMICKS.



SOLD AND SERVICED EXCLUSIVELY BY 3,500 REGISTERED K40 DEALERS THROUGHOUT THE U.S. AND CANADA

# **SAVE GASS WITH CB!** ARE YOU IN BUSINESS? LET US BEE YOUR SUPPLIER!

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SEND \$10.00 For Our 1979 **ELECTRONIC** CATALOG And Price List!

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CIRCLE 72 ON READER SERVICE CARD

# radar replacement

**CB Types:** Number 33 of a Series of a Ser

As more and more people buy radar detectors, police radar will become less and less useful. Police will have to resort to some other sneaky way to trap motorists. Here's just the thing! Brick wall is placed on highway with continuation of highway painted on it. Thickness of wall is such that vehicles travelling 55 MPH or less smash into wall but don't penetrate it. (Shock absorbers behind wall absorb shock) Vehicles travelling over double nickles, however, smash all the way through wall and into trap, where they are ticketed, hollered at, and sent home.

# TOMCATIN' WITH TOMCAT / SSB-13

THE POWER OF AN AROUSED PUBLIC: In our June issue (page 43) we reminded our readers that somehow most people seem to have forgotten that the FCC never got around to refunding millions of dollars in CB license fees which they had illegally collected over several years, noting that the FCC was being strangely shy about bringing up the matter. We asked our readers not to forget that they were owed these funds, just in case such a long period of time had elapsed that the topic had been forgotten. Apparently it was a worthwhile reminder for, after such a long period of silence on the matter, on June 13th the FCC issued a notice announcing "CB License Fees Are Not Being Returned Now." Possibly they had suddenly received a large amount of mail from irate CB'ers demanding the immediate return of their long-forgotten funds! In any event, the FCC announcement said, "Please do not apply, at this time for refund of a CB license fee." They said that refunds are "expected to begin in early 1980." Well, that's not saying much, but it's an indication that if enough people keep an eye on shifty ol' Uncle Charlie he does grudgingly come up with a reply of sorts. If you were one of those who responded to the mention in the June issue by writing to Uncle Charlie to demand a refund of these long-held illegal license fees-ya' done good!...

...OVERHEARD ON CHANNEL 19: A 4-wheeler passed along a "picturetaker" report to a superslab of cars all doing about 45 MPH to conserve gasoline during the final dry week of July, trying to stretch what they had through to August. An anonymous voice immediately responded, "Hope he's using slow motion film!..."

You may recall that last year around this time (or was it the year before?), someone came up with the idea of making October 4th a day dedicated to CB Radio. This was based upon the inspired deduction that October is the 10th month of the year, so October 4th would be "10/4," a numerical arrangement which would strike a resonant chord within the public and make everybody aware of CB every time they heard "10-4." Actually, the idea got quite a bit of mileage and many state Governors signed proclamations commending CB'ers, etc. But, here's what they didn't take into account; that being while 10-4 means "O.K.," and caused us all to feel (as we say) bodacious on 10-4 Day, mystical wheels had been set into motion which should possibly have been left alone. For instance, on October 1st (10-1 Day) the ears on my receiver went dead. The following day (10-2 Day), however, my ears were fixed but a strong local pinned my needle and splashed all over the band. By October 3rd (10-3) my rig wouldn't work at all and I was off the air. 10-4 Day, of course was just super and everything was O.K.! Things went along like that-on 10-13 I got greenstamped by a County Mountie, and on 10-20 my long lost brother showed up at the house to borrow \$10. Guess I should be thankful that there are only 30 days in the month, I don't know if I would look forward to getting my watch fixed on 10-36 Day, and the possibilities of there being a 10-100 Day are too awesome to contemplate! 10-4 Day may be a great thing for CB in general, but I'd like to 10-5 the message to the folks in charge of things that they 10-7 the idea until they can figure out how to lessen the impact on the 29 days of October other than the 4th-which I agree is definitely, and fer sure, one fine day!!!

In the wake of the FCC agent calling CB'ers "nerds," as reported in our pages several issues ago, there have been interesting results. No less than four local CB clubs have informed me that they have now picked up on the descriptive term and have decided to use it in their club names! One group, The New Reformed Nerds, has a particularly intriguing title, but the one that takes the whole cake is a local outbander group which has decided to call itself The Nerds of Never-Never Land! The other groups who contacted me were Nerds To You, and NERDS (Never Ending Radio Discussion Slobs). Leave it to 11 Meter people to always think of something! And speaking of clubs, thanks to Rex, PS-007, and John, PS-10, of the President Sideband Club for presenting me with a membership (PS-1300). I'll use it with my President Tricky Dickie rig as soon as the new models arrive. I also got a note from Bruce, Imperial Commander of the Arabian Secret Service-a far out group headquartered in Massachusetts. Being ASS #201 am instructed to wear only a special secret T-shirt and fez along with dark glasses. Further, I understand that I am expected to operate only on secret frequencies and, at all costs, observe the highest standards of honesty with the FCC (this includes avoiding, confusing and misleading them). There is, of course, a secret initiation which I cannot reveal at this time, but it includes pomegranates and camel—*er*—camel *residue*. I only accepted this membership because I am hoping that it will give me preferential treatment at the gas pumps! Bruce can be contacted at Secret Radio Station #1, P.O. Box 446, Sturbridge, Mass. 01566....

By now I guess that (former) readers of CB TIMES magazine have given up looking for it on the newsstands and have come to the conclusion that it is no longer being published. That assumption is absolutely correct. The publication ceased production last Spring. From all indications, things are not all that healthy at yet another CB magazine, major staff changes in recent months reveal the distinct odor of panic behind its doors-apparently the "new" look the publication will attempt to achieve in the hopes of keeping it afloat is to have it become a clone of S9, although attempts to hire away S9 staffers met with laughs here (Confidential Memo to the "nationally syndicated newspaper columnist" who scribbles the Sideband column for the publication in question: Before you get too carried away with extolling the glories of your employers, please know that our Sideband columnist was approached and offered mucho greenstamps to replace you!). Out of the myriad of regional and specialized CB newspapers and mini-publications which flourished several years ago, only a scattered few remain; about the only ones which seem to be publishing regularly are CITIZENS BAND NEWS (Wash. State) and SEVEN HILLS CB NEWS (Mass.). I haven't seen Arizona's COPPER STATE CB'ER in several months and I hope that this fine publication hasn't given up the ghost. Other regional and specialized publications have either gone under or seem on the ragged edges of doing so-and the list is lengthy. Most will be missed, a few we can think of aren't!

... There are now quite a few overseas CB publications circulating for readers within the borders of those nations where CB has started to grow. For a while it appeared that Australia was going to have a whole raft of CB publications but they seemed to have slowed a bit. Among the better overseas publications are CB FUNK MAGAZIN and KURZWELLE (both from West Germany)—KURZ-WELLE is edited by Charlie (13E198NW/SWS-77), well known operator who spent a month *stateside* this past summer visiting some of his CB friends. Other interesting overseas publications include SVENSK

PRIVATRADIO (Sweden) and the publication of AFA in France.

Thanks to Jim (ER-1/0-Moonshine-36) for making me a part of the EARLY RISER'S Sideband group (ER-123) which uses the upper side of 38 in the Tampa-St. Pete area of the Bikini State. In fact, Jim's QSL even shows a wild bikini!

... HONOR OF A SORT: The Readers' Digest, this past summer, finally got around to printing the old CB chestnut about the Smokey who shouted down the 18-Wheeler on Channel 19. He asked the trucker how fast he thought he was driving, and the trucker answered "double nickles." Smokey then advised him that he had better get out of the way fast since the trailer he was pulling was doing over 70! Funny? Yes—but we heard that one 4 years ago!...Here's a good idea-Leon Pierce (SSB-1964B/BLUE JAY) of E. Gadsden, Ala., is hoping to convince the Postmaster General to issue a set of commemorative postage stamps saluting the 25th (Silver) Anniversary of CB Radio (in 1983). He's getting some petitions going on this and readers who are interested can contact Leon directly at 167 Campbell Ct., E. Gadsden, Ala. 35903!...

meat



The Associated Humane Societies, in an effort to prevent the needless suffering of animals injured on the roads, is trying to reach CBers. A statewide network would be formed to set up emergency service whereby injured dogs, cats and wildlife can be saved from an agonizing death on the roads when there is no one available to pick them up. If you care about animals, won't you please help? For further information on this volunteer animal ambulance corps, please write Roseann Trezza, Asst. Director, the Associated Humane Societies, 124 Evergreen Ave., Newark, NJ 07114 or the Society's Monmouth County Branch located at 2960 Shafto Rd., New Shrewsbury, NJ 07724.



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.

#### **NEWS FROM NEAR AND FAR**

For lack of any better place to include this information, we are putting it in the Hello Skipland column, since it concerns Canadian operation and most of the Canadians heard "south of the border" are by way of *skip*.

We are thankful for this Canadian update to Peter Coggon, LRC-003 and PCBS-49, of Leaside, Ontario. Peter says that both Channel 10 and 19 are generally used only by truckers, although in the Toronto area there are 4-wheelers on these channels "playing trucker," In Toronto, it is said that Channel is for mobile to base, although Peter says that his own monitoring efforts don't seem to confirm this use and the channel is reasonably quiet. Channel 12 is primarily used by truckers speaking French. Chanel 9, which was once for Calling and Emergency use has now been redesignated for Emergency use only! Linears now require a certificate filled out by the buyer and also the seller which must be filed with the government, together with fines being levied upon those caught.

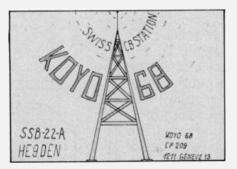
Our overseas photo this month shows Phil Jenkins (SSB-000), of 76 Hillfield Ave., Hornsey, London N8, England. Although Phil is heard by many stateside operators, most are unaware that he is strictly mobile. He uses a Cobra 132 and also (from the



looks of the photo) a *Rice Burner*. In view of the fact that CB has not yet been legalized in England, base station operation is somewhat risky. Phil is a recording engineer, by the way.

13-E-343NW, Christof, in West Germany writes to say that he's 100% QSL and would like to hear from operators on this side of the puddle.

Robin, 44-E-6, in the Republic of South Africa, advises that Channels 19 through 27 are the only ones which are "legal," however operators in RSA are hoping that all 40 channels will be approved for AM/SSB use. Conditions in RSA for skip, says Robin, are spectactular and he can hear Europe and the States "like locals," and without even resorting to a beam he has worked barefoot to most of the world. He's using an Avanti Astro Plane (he distributes Avanti antennas and also several brands of radios). Robin



says that he normally monitors the upper side of Channel 27 from 1500 to 1900 GMT. Also, he feels that S9 is "No. 1 in the world of CB publications!"

Chris, from Hillsboro, Ohio, reports that CB in Portgual is legalized on 40 channels with 5 watts AM, 15 watts SSB. Unlike several other European countries which don't permit directional antennas, they're OK in Portugal!

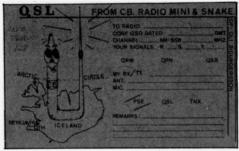
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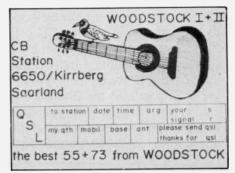
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# ON THE SIDE S9'S MONTHLY COLUMN FOR SIDEBANDERS BY BILL SANDERS/SSB-295, KW-5304., KBAH6794

#### FIXEM-UP; GETTING NATIONAL NUMBERS

Single Sideband operators don't use "handles." Instead we identify by special Sideband numbers. Those many readers who write to us asking how they may obtain a set of these numbers are advised that we recommend obtaining a set of permanent national numbers from the SSB Network, which is the largest, most prominent, and oldest Sidebanding organization in the world. There are no dues! We suggest that ALL Sidebanders now avail themselves of the opportunity to become part of this vast network-future sidebanders, new sidebanders, and even experi-enced old-timers with "this many" local and regional numbers. A selfaddressed stamped envelope sent to The SSB Network, P.O. Box 381-XF, Smithtown, N.Y. 11787, will bring you information on how you can become a vital and important part of the national Sidebanding unity movement, and at last obtain a number which is part of the uniform international Sideband identification system, recognized throughout the world.

#### QUICK KEYING

Slow keying may well be a lost "art," at least you hear it being used with less and less regularity as time goes on. And it's a shame, too, because for many years it had been one of the prerequisites for operating on 11 meter Sideband.

For the uninitiated, slow keying doesn't refer to sending CW slowly, it means allowing a short time lag between the time the other station stops transmitting and the time you begin with your transmission. The lag really need not be more than about 2 or 3 seconds! Among the several reasons slow keying has been used, SSB'ers who remember such reasons will tell you, is the fact that since we don't have "channel masters" giving out breaks or permission to speak on the Sidebanding frequencies, it might be the only way another operator can let stations using the frequency know that someone else is out there and wants to say something! This is especially true in the instance of a portable unit since, as you know, the signal coverage of mobile stations is not as far-reaching and constant as might be expected from base stations. A portable unit in



Hopscotching around the nation for interesting Sideband QSL's has brought forth a card from the foothills of the Ozarks (it says here), better known as Razorback Country. That would be the card from Dave, Dixieland 002/SSB-4953. Meanwhile, from north of the Mason-Dixon Line, we've also got a card from Dan, 6W1558/SSB-9834H, of Massachusetts—it has a state map which pinpoints Dan's QTH. Not to be outdone by these cards, a most unusual card has drifted in from the sunny shores of California—from the one and only 31W11858/SWS-858. The card reports that he QSL's "99%," which is as about as honest as you can get anybody to admit to these days! But how come that I'm always the 1% who doesn't get the QSL?

motion may be passing through an area where communication with its base station is optimum—2 miles down the road may be a relatively dead spot. Recognizing this, Sidebanders have traditionally slow keyed so that a portable trying to reach its base station can make itself known without having to compete with conversing base stations, it's just courtesy to others!

So, during the time lag, there's time for a portable or base station to send a QSK (if the hope is to become part of your conversation), or to stand on the side if the intention is to let you know that others are waiting to use the frequency.

The exact opposite of slow keying is (you guessed it) quick keying—which used to be one of Sidebanding's 7 Deadly Sins! Quick keying means talking right on the tail end of the other station's transmission so that (literally) nobody else can get "a word in edgewise," that is unless they want to step on you—another of the 7 Deadly Sins! I took a bit of an instant survey over the past week, asking each quick keyer about why they were into that type of operation and were refusing to slow key. Many of the stations I asked said that they were totally unaware of the whole matter-just never heard of aujck or slow keying! Quick keying is the way of life on the AM channels and unless you were able to key up with a lightning finger on the mike button when you stood a good chance of having some other bozo come along and take away the channel for his own shout. That practice simply was their normal way of operating and when they came to SSB from the AM channels they brought it with them; nobody ever bothered to explain slow keying to them. I can buy that in some instances, but there are also those operators around who aren't newcomers and who should know better!

Actually, operators who never had slow keying explained to them came to think it was a pretty good idea once they knew about it. They were more than willing to go along with the idea, even saying that they would tell others about it. Y'know, it's not really asking anybody to go very much out of their way or inconvenience themselves to

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operate like this, 2 or 3 seconds is not much "wasted time." In answer to the few operators who said that they were quick keying on purpose "so that the other station wouldn't think that I wasn't responding to his transmission," or because "somebody else might hear the silent period and think it's a dead frequency," I would say that we aren't talking about a 30 second or 5 minute lag, only 2 or 3 seconds. Nobody will think you are ignoring them or decide after waiting 3 seconds that the frequency is "open." Fact is that other operators will quickly realize what you are doing and will probably appreciate it! The practice is quite (happily) contagious.

An easy way to see just how short a time lag should be left is to remember the phrase, "Slow keying is good for Sidebanders and everybody else." Not only is the phrase true (and therefore easy to remember), but if said at normal conversation speed, it takes about 3 seconds to complete. Some operators have found that when the station they are communicating with "turns it over," they can say this expression "inside their heads" before keying up, and that is about as painless and accurate way of doing it that we can think of.

It's an operating tradition which goes back into the earliest days of Sidebanding on 11 meters (it's even older in some other radio services), and is-when all is said and done-an integral part of the operating courtesies all Sidebanders like to speak of. I think it's a practice which deserves a better fate than being cast into the rubbish heap.

#### BUZZ-KLUNK-BREAKER-BREAKER-BUZZ

There's probably nothing quite as annoying, or which produces as much irate reader mail, as the little matter of "AM'ers on Sideband frequencies." It's a topic which stirs deep emotions from both "sides," AM and Sideband.

I think that right at the outset we are going to have to again mention that the FCC, in its finite wisdom, has selected CB as one of the few voice communications services which does not segregate AM and SSB operations. When the maritime low frequency bands were AM, SSB was not allowed: now that SSB is "the way to go" on those frequencies. AM has been banned. This by FCC edict. But also by edict of that same agency, CB transmissions between 26.965 and 27.405 MHz are permitted to be AM and SSB

without any segregation between the two highly incompatible forms of transmission, this despite repeated pleas from CB licensees for the FCC to establish such mutually exclusive frequencies. In their all-too-often noted "don't give a damn" attitude towards the problems of CB, they have turned their backs on the situation and left the world's largest radio service to try to sort out our own fate (then why don't they also let 11 meter operators decide our own fate in the matter of legalizing skip, sliders, etc.?). Nevertheless, all CB'ers "live with" the fact that a CB license authorizes AM and SSB operation on 40 channels. and that if there is to be any separation it will be only by voluntary choice of the licensees. Realizing the advantages to all concerned, it seems that the majority of serious AM and SSB communicators are only too happy to participate in any organized efforts to establish and maintain separate AM and SSB operational frequencies or channels.

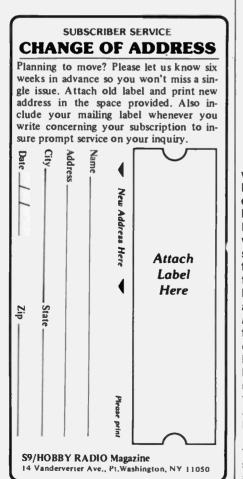
As you might imagine, there are operators from the worlds of AM and SSB who do not participate in such efforts. Either they are not aware of them, or they reject them! Just as the vast majority of serious operators



seem willing to maintain these concepts, most newcomers who had been unaware of the efforts are only too happy to go along with it when it is explained to them.

That leaves those who reject the idea and see no reason why AM and SSB CB'ers are better off segregated into different frequencies. Number among these people the FCC itself; and from the world of CB licensees include a small but annoying number of *lids*, cranks, malcontents, and generally rude clods. Chances are that these are





the same ones who drive in the *hammer* lane of Interstates at 40 MPH—they have the legal right to do it and, damn it, they don't care how many people are inconvenienced while they "make their point," in fact the more people who try to get them to move out of the way the happier they become because they are being given graphic proof that their efforts are producing results!

Same with the yo-yos on 27 MHz, and you can realize that those who are going out of their way to be annoying in this manner are getting their jollies by hearing a chorus of screaming operators asking them to get off the frequency! I also include in this the *really* disturbed people who aren't trying to hold a QSO on the "other camp's" frequency or channel, but are simply there throwing dead carriers, playing music, or some other *Neanderthal* function with the intent of being annoying.

Realize that we are dealing with people who are most likely in the midst of a severe identity crisis-including lonely and pathetic souls who have no other way of getting people to pay any attention to them. If they drove at 40 MPH in the granny lane the world would continue to pass them by without a second notice, but by moving only 20 feet over to the left on the highway they achieve instant recognition! And by turning the channel selector on a CB rig they can move only a few kHz up or down the band and find that they can instantly increase the number of operators who wish to communicate with them from zero to perhaps several dozen! And all under the ploy of "exercising my rights," and with the full consent and approval of Uncle Chowderhead in Washington! Like it's Fantasy Island for the demented!

Now how many of these people would remain in the hammer lane at 40 MPH if there were no results from their efforts, nobody at their rear door to honk a horn, tailgate, or flash headlights? Suppose they drove there for a while but found that everybody was still ignoring them, driving at 55 MPH in the other lanes and letting them "make their point" (even if it is on top of their heads) without any apparent annoyance to others? Not long, for sure! Eventually they will have to clear out of that lane to get the attention they crave. They will have to travel a while before they realize that their efforts have produced no results, but they will move over! And a darn sight faster than they would have done so if they were able to stir up a column of 5 or 10 hysterical drivers at their back door!

Apply this to 11 meter comunications, see if the parallel situation and solution isn't true! As annoying as it is, as angry as you get, keep your cool. To

express any annovance over the air (even by mentioning the situation to the operator at the other end of the QSO-who is probably well aware of it anyway) is like throwing a shovel full of coal onto a fire. Feed a fire and it flares up-gets worse, burns longer! Starve it and it burns out! If you can't talk over the top of the interfering station then see if you can wait until the station is transmitting so that you and the station in communication with you can agree to QSY. Or, why not have an unannounced alternate frequency agreed upon in advance with your friends, that way you can silently slip away while Captain Idiot is in the middle of his performance? (But don't announce what that alternate is over the air, chances are the good Captain will not root it out because it's much easier to stay on frequency and bug the next operators who try to hold a QSO.)

Of course, as we've said before, a well used frequency-jam-packed with operators-is less likely to be "attacked" by a crazed ratchet jaws or chuckers. They seem to prefer the lesser used frequencies so they can more easily zero in on only one QSO and gain the spotlight rather than go unnoticed in the background of a busy frequency. So-use 'em or lose 'em! Keep your frequencies busy and you'll protect them from erosion. A totally dead "SSB" frequency may be an "SSB" frequency only in your mind! To somebody who isn't taking kindly to acknowledging it in that status (or to someone who simply doesn't know about such matters) it's an open invitation for non-SSB operations to start up and continue. Next thing you know, it's not even an SSB frequency in your mind-and all of the "pleasant explaining" to those using it that it's "for SSB only," is not going to be very convincing when the other station comes back at you with something like. "Oh yeah? I've been monitoring it for over an hour and it's been as quiet as a tomb!" It's hard to expect that even a serious AM operator, willing to cooperate, is going to be very happy about staying clear of a supposed (but long unused) "SSB" frequency when all of the "AM channels" are wall-towall, and the only Sidebander anywhere in sight on the frequency is the guy who keys up to ask him to "take it to another frequency!" Don't forget the story of the Dog In The Manger! Solike we said-use 'em or lose 'em! It can't be stressed strongly enough!

Jim, SSB-9, one of the Trustees of the SSB Network, advises that the SSB Net's experience has been that restraint in the face of deliberate jamming is probably the most difficult approach to take, but it still produces the best results! If you've got to "get it out of your system," yell at your spouse or kick the cat—but keep it off the air!

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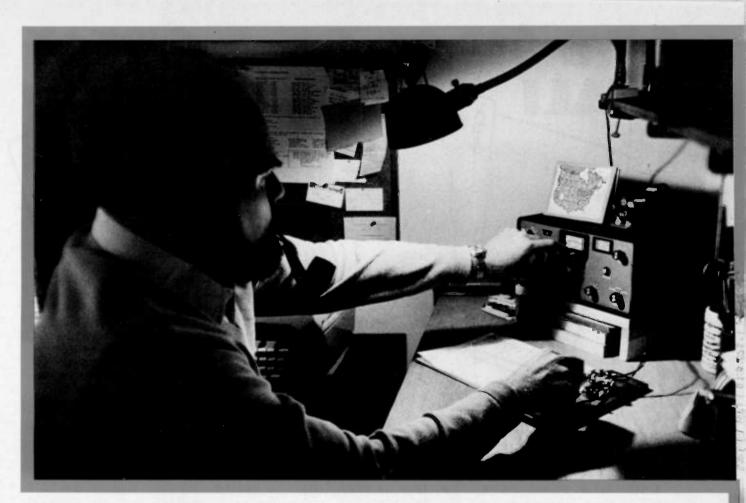
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# FROM BOOTLEGGER TO HAM The Day The FCC Sent A Hand-Delivered QSL!

**D**AVID Dary, associate professor at the U. of Kansas, teaches broadcast news and radio station management for a living. But when he's at home, he sometimes broadcasts around the world from a radio station licensed just to him.

Dary's call sign is W0QDG, and his radio station is part of a worldwide hobby: amateur radio.

Dary has been a short-wave radio enthusiast since his high school days in Manhattan in the early 1950s.

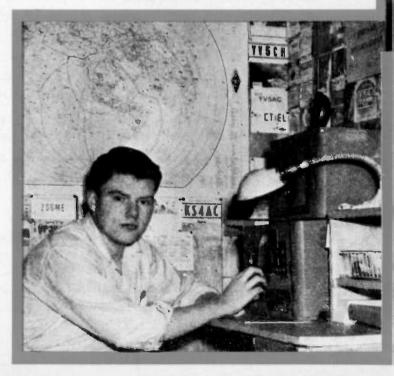
"I developed an interest in radio—whether it was amateur radio or anything else. By the time I got out of college it had developed into news. I think it goes back to my interests that were developed in shortwave radio listening and what was happening in the world," Dary said.

Dary said he was fascinated by radio.

"I was listening to our radio in about 1948 when a ham came in one night right over the AM radio," he said. "I wondered what he was doing and thought, 'Wow! He's got his own station'!"

Dary said he began as a short-wave listener, using a receiver his father had bought for him. He later moved into amateur radio. His first broadcast, however, was not as a ham.

By Rick Link, WB0KDE



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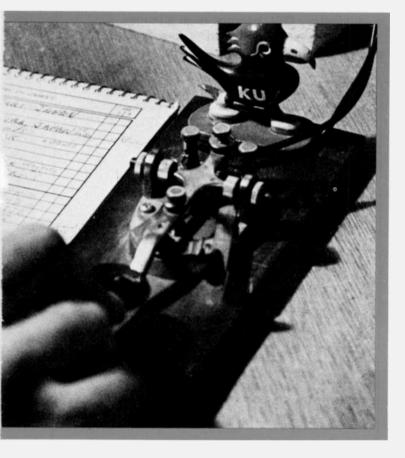
After spending some time as an SWL, monitoring AM stations and even television stations, Dary saw an ad in a 1952 catalog from an electronics mail-order house in Kansas City.

"It said, 'Own your own radio station,' and I was just a listener...So I sent off \$6 and some cents for this 'phono oscillator'."

Dary tried out the radio station with the help of a friend and a small antenna included with the kit.

When the small antenna didn't seem to work, he said, "I just hooked it up to my short-wave antenna...it was about 80 feet long."

He called the station "KDAD," a combination of the customary "K" prefix and his initials.



"The third Saturday after I began, about 9:30 a.m., there was a knock on the front door...and two gentlemen were standing there in suits. One gentleman introduced himself as Mr. Hester, and the other gentleman introduced himself as Mr. Gallagher. I never will forget that name.

"He was chief engineer for the Federal Communications Commission in Kansas City.

"They said that their monitoring station in Grand Island, Neb., had picked me up. I showed them my transmitter. Afterward, the only thing they did was to send my father a letter saying that since I was a minor, he was liable for a \$10,000 fine, and/or six months in jail.

"I found out many years later that these were customary scare tactics of the FCC, but it worked, I'll tell you. So I went on and got my Novice License in about 1953." As an SWL, Dary spent hours verifying stations. Verification involved writing a letter to a station he had heard, reporting the time he had heard the station, the program or content, and the signal strength.

The stations would send him verification cards, printed postal cards or letters with the station's call and information about the broadcast he had heard. Dary kept the cards and letters in scrapbooks.

The list of stations is long and includes cards from Trinidad; Puerto Rico; Japan; Del Rio, Texas; Monrovia, Liberia; Radio Algeria; Belgian Congo; Radio Peking; and the Soviet Union. He verified 135 countries during his high school years.

"I started monitoring material from the Soviet regime...and out of the blue one morning I was called out of class because there had been a little clipping in the high school paper. It was an FBI agent that had found out about all this stuff I was monitoring.

"So they borrowed it and I don't know what they did with it. It was all marked 'confidential.' I wasn't supposed to talk about this. They gave it back to me, but it was all stamped up."

After he got his ham license, Dary operated under the call letters W5DA0 in Texas and W4ZAX in Washington, D.C.

Dary now operates from a corner of the family room in his home. His radio is about 5 inches high, 12 inches wide and 18 inches deep. It sits on a desk along with his Morse code key and a logbook for noting the essentials of each contact.

"Ham radio is...kind of the mystique of radio, especially the ability to communicate around the world. It is escape," he said.

Dary is licensed to use "phone" or teletype communication, and even communication by amateur radio satellite. Amateur radio operators have two orbiting satellites circling Earth and relaying ham messages.

"I personally like CW (Morse code) because CW requires concentration. I tend to stick with CW instead of going to phone, because phone takes more time, and you tend to say a great deal. Well, it's like wordy writing. You use an awful lot of words, and you don't say much."

By using Morse code, he can talk to more distant stations with less power. The dots and dashes of Morse code are electronically more efficient than voice transmissions and go farther. By using Morse code and operating late at night or early in the morning, Dary has contacted distant countries with as little as three watts of power.

"You really have to listen for those rare catches out there...like some of the Soviets," he said. "There are a lot of hams in Russia, but most of the stations seem to be club-operated, and they're on at different hours than we are."

Although he prefers the challenge of working distant stations, Dary said he had talked to many hams in the United States.

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# **DX KORNER** C.M. STANBURY II REPORTS ON THE INTERNATIONAL SHORT WAVE SCENE

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

THE QSL QUESTION—Most DXers want to verify what they hear—i.e. they attempt to obtain from the station a card or letter specifically stating that its signals were heard by the listener. Preferably such "QSLs" will list transmitter location, frequency, date and time of reception as well as power. Obtaining QSLs from SWBC stations has always been a relatively easy matter (although recently problems have developed with some major international broadcasters) and even many standard AM stations regularly verify correct reception reports. But persuading utility stations to verify is a tricky and often frustrating process.

A few of the giant communications facilities have regular QSL cards such as the one displayed in Figure I from U.S. Naval station NAA at Cutler, Maine (not too far from one of those shortwave radar facilities mentioned in our August column) but such cards are certainly the exception rather than the rule. Most time stations send out some sort of card or letter however these are often vaguely worded: see for example the two letters we have collected from ZUO

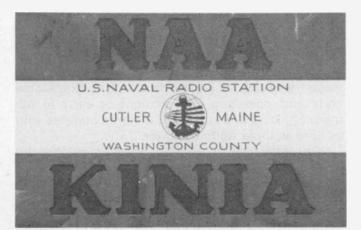


FIGURE I—QSL card from USN station NAA, Cutler (East Machias), Maine. Card was also used by facility's official Amateur station—KINIA.

in South Africa over the years (Figure II). And with all other types of communications stations (other than amateur and CB of course) your chances of obtaining a satisfactory QSL become even slimmer.

One answer is to send a pre-prepared, selfaddressed stamped QSL card with your report and

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	Dear Mr Stanbury,
	Thank you for your report of 1973. March 12, on reception of ZUO at 23b57 G.M.T.
	I confirm that 200 was transmitting at that time.
	Tours sincerely,
	F-Lak
	R. LAKE PRECISE PHTBICAL MEASUREMMENTS DIVISION

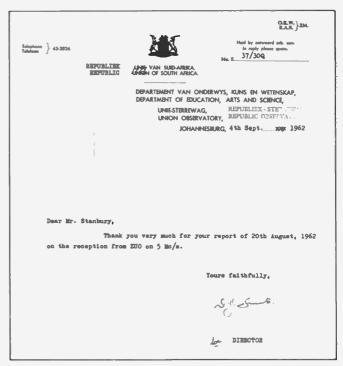


FIGURE II—Vaguely worded QSL letters from ZUO in South Africa.

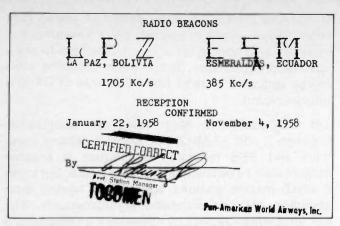


FIGURE III-Self-prepared QSL for beacons LPZ and ESN.

ask the technician in charge to sign, rubber stamp and mail it back to you. Such a card is displayed in Figure III from Pan American Grace World Airways headquarters at Tecumen Airport (Panama City, Panama) for beacons LPZ La Paz, Bolivia and ESM Esmeraldes, Ecuador—the latter is now often heard on 1670 kHz. If you can provide proof of reception with your report, the chances are about 50/50 of having a self-prepared card signed and returned to you.

Most beacon transmissions consist entirely of the identifier sent over and over in slow morse code—

slowly enough so that anyone with a little patience can decode it. To prove reception, time the identifier exactly to the half second and do the same with that period of silence which follows each transmission of the identifier. Along with this information include in your report such standard details as time and date of logging, signal strength and interference, plus a brief description of your receiver, antenna and location.

To prove reception of a station involved in two way communications, mention the name of the second transmitter contacted or called but under no circumstances repeat any of the conversation you hear: to do so is a violation of the Communications Act. With mobile stations (aircraft, ships etc.) no one will object if you specify its location (with the possible exception of military vehicles).

THE TAPE ALTERNATIVE—Because utility QSLs are difficult to obtain, some DXers prefer to simply tape every rare or unusual signal logged. This approach has one major drawback. If your reception involves two way communications in any manner, it would be illegal to let any one else hear your tapes. On the other hand, obtaining addresses for ships has become such an expensive and complicated proposition that tape is usually the only practical way to verify such reception. Some of the world's most exotic locations can be logged only via marine



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reception—e.g. if you listen long enough to fishing vessels working telephone station KMI Dixon, California on 4072.4, 4101.2, 8201.2 and 8204.4 kHz you might eventually hear one at the Revilla Gigedo islands (off the west coast of Mexico). Under these circumstances a tape job becomes very tempting.

If your receiver has a special tape jack then recording your DX should not present any technical problems. Otherwise, for best fidelity, the receiver's headphone jack must be patched into the recorder. However on most shortwave receivers use of the headphone jack cuts off your speaker and unless the recorder has its own speaker monitor (available only on more expensive models) that system is just not practical for DX purposes. Faced with that situation, DXers have achieved surprisingly good results by simply placing the recorder mike about two feet from the SW speaker. It seems that the extra ambient noise isn't a significant factor under most DX reception conditions.

LOOSE ENDS ZUO is occasionally heard in eastern North America on 2500 and 5000 kHz from shortly before sunset until WWV becomes strong enough to block the channel. It identifies in slow morse code (--...-) every 5 minutes. But the most widely received of all southern hemisphere time stations is LOL operated by the Argentine Naval Observatory at Buenos Aires. Try 15,000 kHz at 1500-1600 and 1800-1900 EST. They are also heard on 10,000 kHz during the latter period. A young lady announces the time in Spanish every 5 minutes and there are also code IDs (.-..-..). Needless to say a tape recorder is very useful when decoding slow morse and we'll expand upon this type of DX in a future column.

AM MODULATION Most voice communications between 2 and 27 MHZ use single sideband these days and SSB reception techniques is another subject we'll be detailing in the near future. But some 2 MHZ marine stations succeed in having both standard AM and sideband simultaneously. The carrier is supressed but by not more than 6 db (one S unit) below the sidebands. Transmissions are therefore easily monitored on even the simplest SW receivers. Most SSB transmissions are USB.

Two such weather broadcasts are aired by the Jacksonville Marine Operator (WNJ) at 7:00 PM Eastern time (i.e. daylight or standard—whichever is in effect) and by the Charleston Marine Operator (WJO) at 7:15 on 2566 kHz. Ships working WNJ and WJO use 2390 khz (there transmissions are relayed on 2566) and a surprising number also still use standard AM modulation. They range from small fishing and luxury yachts to giant U.S. Navy vessels. Both Jacksonville and Charleston are the sites of major USN facilities but no military messages are carried on this civilian circuit which is tied into the Bell system (as is KMI incidentally).

# 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 selfaddressed stamped envelope to: SSB Network, P.O. Box 381-XF, Smithtown, NY 11787.

# WASHINGTON OUTLOOK WHAT'S HAPPENING AT UNCLE CHARLIES'

#### EXTENSION FOR FILING GRANTED IN CB REVOCATION CASE

The FCC has granted Charles A. Stevens, Sr. of Pearland, Tex., a 30-day extension of time to file exceptions to a July 5, 1978, initial decision revoking his license for Citizens Band radio station KQQ-8472.

In the initial decision, FCC Administrative Law Judge Frederick W. Denniston found Stevens had willfully violated several CB rules, including Section 95.37(c) by utilizing an antenna above the maximum height permitted, and concluded his license should be revoked.

Since no exceptions were filed within 30 days after the public release of the initial decision and the Commission did not review it on its own motion, a notice was released announcing that the judge's decision had become effective on August 24.

On August 21, 47 days after the release of the initial decision Stevens asked for an extension of time in which to file exceptions. Subsequently, the FCC Review Board denied the request finding that the time for filing exceptions (30 days) had already expired and that no extraordinary circumstances existed justifying a waiver.

In seeking review of the Board's order, Stevens contended that he had interpreted a footnote in the initial decision to mean that he had 50 days before the revocation order went into effect and he had the same amount of time in which to file exceptions.

Noting that Stevens was a layman who had represented himself throughout these proceedings, the Commission said it was plausible that he might have misconstrued the footnote. It also found that this explanation was buttressed when considering the fact that Stevens submitted his extension request before the 50-day time period had expired.

In view of these extraordinary circumstances, the Commission concluded that the ends of justice would best be served by permitting Stevens to file exceptions within 30 days after the release of its order and by setting aside the effective date of the initial decision.

However, the FCC warned that in the event Stevens fails to file exceptions and the Review Board does not review the case on its own motion the initial decision again will become effective in 50 days after release of the current order.

#### ILLEGAL RADIO EQUIPMENT SEIZED IN RALEIGH, N.C.

Approximately \$5,000 worth of illegal Citizens Band radio equipment was seized by U.S. Marshals accompanied by FCC agents in Raleigh, N.C., and surrounding areas in a crackdown on CB radio operators.

The seizures netted equipment which had been illegally modified and had been used to operate on unauthorized frequencies and with greatly increased power.

The FCC said that complaints from "legitimate users of the frequencies and from television facilities" prompted Jack Crawley, Assistant U.S. Attorney to request the FCC's Norfolk Field Operations Office to investigate the unauthorized operation.

The FCC located the violators by electronic direction finding techniques.

In addition to the seizures, Engineer in Charge of the FCC Norfolk office in Raleigh, J. J. Freeman, stated that about 20 other violators were identified and will receive direct fines from the FCC.

George Anderson, U.S. Attorney for the Eastern District of North Carolina promised vigorous prosecution of individuals who willfully violate the law by interfering with other CB operators and causing television interference by using unauthorized equipment and excessive power.

#### FCC BLITZES THE L.A. AND ORANGE COUNTY AREAS!

The Federal Communications Commission announced that last April its agents conducted a major crackdown against CB users who operate their CB radios in violation of Federal radio Rules and Regulations. The crackdown was conducted throughout the entire Los Angeles and Orange County areas and resulted in over 85 violative stations being located. Among the most serious violations observed were the use, by CB'ers, of unauthorized frequencies. Operators with unauthorized, overpower equipment, linear amplifiers and several who play music which interferes with legitimate CB

communications were also located. Some of the violators will have fines assessed and others may face possible revocation of their license to operate a CB radio. (Federal radio laws and F.C.C. Regulations provide for a maximum fine of \$2,000 per day, per offense and a total maximum fine of \$5,000 per day by licensed CB'ers and a maximum fine of \$10,000 and/or one year imprisonment for unlicensed operation.)

#### NO MARKETING EXTENSION FOR 27 MHZ WALKIE-TALKIES

The FCC denied a request by the Fanon/Courier Corporation for a further extension of the December 31, 1978, marketing cut-off date for 27 MHz walkie-talkies to permit it to sell its Model Spokesman I low-power device.

The 27 MHz walkie-talkies were shifted to a new band at 49 MHz in a rulemaking in 1976, which established March 18, 1978 as the marketing cutoff date for 27 MHz. This date was subsequently extended to December 31, 1978. In the same Order, the Commission committed itself not to grant any further extension.

The Commission noted that in this, its second petition, Fanon/Courier repeated its original request for permission to market 27 MHz walkietalkies until December 31, 1979 or until the units on hand are sold. This request is limited to the sale of its stock of walkie-talkies identified as Spokesman I. The company argued that extending the sale to the end of 1979 would not harm the public interest, since the Commission had conceded that the walkie-talkies had a low interference potential.

In reply, the FCC said Fanon/Courier had taken the statement out of context, that the low interference potential of the 27 MHz walkie-talkies had been the least weighty of the several arguments that had persuaded the Commission to extend the marketing cut-off date to December 31, 1978.

The FCC concluded that the entire basis for Fanon/Courier's request appeared to be financial loss due to a marketing decision it made in 1976, which it expected the Commission to rectify by granting another extension. The Order noted that Commissioners



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Tyrone Brown and Albert Washburn, in concurring with the earlier decision to extend, stated that the Commission should be an indemnitor of corporate marketing decision particularly when industry had been given adequate advance notice that a marketing prohibition might be imposed.

The FCC pointed out that its proposal to shift low-power communication devices from the 27 MHz band to the 49 MHz band had been announced in July 1974, two years before Fanon/ Courier ordered them, and the actual cut-off date was announced in February, 1976, well in advance of the company's commitment to buy the walkie-talkies. Therefore, the company's decision to purchase so many units must be construed as an unwise marketing decision.

The Commission said that many other manufacturers and distributors were caught in the erosion of the 27 MHz walkie-talkies market in 1977-78 but were content with an extension to the end of 1978. To grant Fanon/ Courier another extension would be unfair to the others that had accepted the Commission's decision not to extend the marketing cut-off date beyond December 31, 1978.

#### ILLEGAL EQUIPMENT SEIZED IN MUSKOGEE, OKLA.

John Osgood, Assistant United States Attorney for the Eastern District of Oklahoma, announced that over \$7,000 in illegally used CB radio equipment was seized May 1, in a crackdown on illegal CB operations in the Muskogee, Okla., area.

The seizures were the result of an extensive investigation by the FCC Dallas office into the operation of CB radio operators using illegal amplifiers to boost their power as well as violating other FCC Rules and Regulations.

Osgood stated that U.S. Marshals executed eight search warrants in the Muskogee area. The U.S. Marshals were accompanied by agents of the FCC and officers of the Muskogee Police Department.

Osgood claimed that the use of linears causes interference to other CB operators, other types of communications, television interference, and even to such devices as heart pacemakers.

#### OUTBANDER'S CB LICENSE REVOKED, AMATEUR OPERATOR LICENSE SUSPENDED

FCC Administrative Law Judge Daniel M. Head, in an initial decision revoked the license of Michael S. Kay of Wheeling, III., for Citizens Band radio station KATI-2544, and has suspended his Technician Class Amateur Operator license for two years rather than the remainder of its term. Last August 15, Kay was ordered to show cause why his licenses for CB radio station KATI-2544 and Amateur radio station WD9DJC should not be revoked for violating the Commission's rules. His Amateur operator license was suspended.

The order alleged that on August 18, 1977, Kay transmitted voice communications using Amateur radio equipment on 27.435 MHz, a frequency assigned for use in the Industrial Radio Services, not in the CB or Amateur Radio Services; that a transceiver was attached to a radio frequency power amplifier which produced in excess of 12 watts peak envelope power; and that he did not identify his station with a Commission-assigned call sign.

A prehearing conference and hearing were held in Chicago last October 24 and the record was closed the same day.

At the hearing, Kay said that he was operating his CB station, not his amateur station, and that at the time of the violations he was not as familiar with the Commission's rules.

Judge Head noted that Kay recognized during his broadcast that use of a power amplifier at approximately 27 MHz causes interference to nearby home televisions and radios by overloading such receivers. He also pointed out that unauthorized transmissions on an Industrial Radio Service frequency interferes with licensees in that service as well as with public safety authorities. He added that timeconsuming and expensive directionfinding procedures are required for the FCC to locate a station not identified by a call sign.

The judge noted that since the date of violations, Kay had upgraded a Novice Class to Technician Class license which was issued October 4, 1977, for a five-year term, and that to obtain these licenses it was necessary to be familiar with the rules and various technical manuals. In addition, the judge noted, since his violations, Kay had disposed of his CB station and had committed no further violations.

Although the judge could not credit Kay's argument that the violations were related to his lack of knowledge of the FCC rules, he said Kay deserved consideration for having admitted his violations and for evidencing a reformed attitude.

Taking into account all the circumstances, Judge Head concluded that Kay's CB license should be revoked. Further concluding that Kay did not possess the required qualifications to remain a Commission licensee at this time, the judge affirmed the order suspending Kay's Amateur operator license but modified the suspension to terminate in two years, at which time he said Kay again will be qualified for a license in the Amateur service.



#### **Conducted By: Chris Kelly**



The Cardswappers Unlimited Column is dedica-ted 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 (1978) issue of CB RADIO/ S9; a reprint is available for 25 cents and a self-addressed stamped return envelope. Address all requests to: Chris Kelly, Cardswappers Unlimited, CB RADIO/S9 Magazine, 14 Vanderventer Ave., Port Washington, NY 11050.

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Squire	"E" St., no. 10, Yakima,
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SSB-11-	The Jones', Box 253, Bridge-
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6 Interna-	George White, 289 School St.,
tional 2	Stoughton, MA 02072
KBJZ-2362	Jim Simmerman, 227 East
	"E" St., no. 10, Yakima,
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SSB-71B3	The Redman's, Harborside, ME04642
Unit 114	Box 64, Palmer, MA 01069
KSQ-1726	Tom Isaac, P.O. Box 254,
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Mr. Magic/	The Martin's, 101 Diplomat
Rag-Muffin	Plaza, Morton, IL 61550
SSB 974 A	The Diefenbach's, 1501 Nath-
	aniel Mitchell Rd., Dover
	DE 19901
Big Rooster/	The Lackabaugh's, P.O. Box
Little Hen	319, Hanover, PA 17331
KAY J-8262	Robert Bradt, 974 Scio St.,
	Elmira, NY 14901
Disco Duck	Mark Herzina, 4524 Korte
	St., Dearborn, MI 48126
SSB-702-A	Richard Corcoran, P.O. Box
	171, Montvale, NJ 07645
Stretch/	The Danielson's, 9258 Station
Red Rose	Rd., Erie, PA 16510
SSB-577	The Donahue's, 20 Oits St.,
	Livermore Falls, ME 04254

Skipper "B"/	The Ballou's, P.O. Box 171,
Flower Lady KBBE 0080	Newhall, CA 91321 John Cotton, P.O. Box 325.
SSB 4109-A	John Cotton, P.O. Box 325, Depew, NY 14043 Mike King, Pay 104, No.
	Mike King, Box 104, No. Eastham, MA 02607
KADU-5886	The Ball's, Rt. 3, Box 3-B, Newland, NC 28657
Moonshine Unit 564	Kevin Brigden, P.O. Box 164
Mitchell	Kisbey, Sask, Can. 50C 1 L0 64-33 98th St., Rego Park,
Stephen Rakoff	NY 11374
CS-197	Ed, P.O. Box 554, Far Rocka-
33A202	way, NY 11691 Mike Christman, P.O. Box
KAKU-5543	
NAN0-3543	Middleburgh, NY 12122
KTU-1140	Steve Humphrey, Box 419, Middleburgh, NY 12122 Robert W. Eckert, 207 Depot St., Ridgway, PA 15853 Pres. U.S. of Texas QSL Swap Club, P.O. Box 183, Hender- son, TX 75652
Big Dollar	Pres. U.S. of Texas QSL Swap
	Club, P.O. Box 183, Hender- son, TX 75652
Unit 901	Cornelius Allen, Jr., Kt. 2,
KMV 2120	Box 282, Como, MS 38619 Jim Thompson, Rt. 6, Box
KDU-9135	90A, Ada, OK 74820 The Egolf's, RD 1, Box 184B, Landisburg, PA 17040
	Landisburg, PA 17040
KEY-7686	Richard Bejgrowicz, 46 East 34th St., Bayonne, NJ 07002
KEY 2443	M. Spranger, Jr., Rt. 1, Perry Lake, Fairview, MI 48621
KXX 4692	The Callams, Wilmont Ter.,
KAAT-1457	Huntsville, OH 43324 James A. Hampton, 1210 E.
	Commerce Ave., High Point,
Little	NC 27260 Gale Malone, 6300 Catherine
Buffalo	St., Harrisburg, PA 17112
Smoke Eater	Steve Humphrey, Box 419, Middleburgh, NY 12122
Corn Cob	The Sorensen's, 1205 North
Control	Ridge Ave., Tifton, GA 31794
SWS-1471	Box 1684, Everett, WA 98206
6 W1 6 2 4	Steve Lahteine, Box 413, Cen- terville, MA 02632
Unit 777	P.O. Box 2841, West Palm
Scotsman/	Beach, FL 33402 The Mackay's, Box 28, N.
Mayflower	Adams, MA 01247
Mainspring/	The Lueschen's, P.O. Box 1022, Fremont, NE 68025
Windup KFZ-4729	1022, Fremont, NE 68025 The Nowak's, 614 4th Ave.,
	S.E., Jamestown, ND 58401
Bar-B-Q/ Seal	The Roberson's, Box 11014, Parkwater Station, Spokane,
Unit 188-	WA 99211
Lima	The Redman's, Harborside, ME 04642
Little Mama/ Mellow Yel-	The Ingrams', P.O. Box 47935, Los Angeles, CA
low Canary	4/935, Los Angeles, CA 90047
West Wind	Box 1383, Framingham, MA
334	01701
Unit 37	P.O. Box 2487, Costa Mesa, CA 92626
SSB-1406-A	Chip & Mary, P.O. Box 265, Verona, PA 15147
	1010HB1 LUI 13147

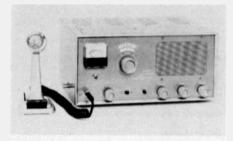
Bowlin Pin/ Lady Bowlin Pin	The Powell's, Box 371, Oska- loosa, KS 66066
KGZ-9524	Chand Dis Dis 1 - Ook of a
NG2-9524	Stand By Breaker QSL Club, 27 Oak St., Shelby, OH 44875
Hard Hat	Herman Daley, 22 Teetsel St., Saugerties, NY 12477
Sun Bird	Frank Faucher, 1315 Vista Terr., Titusville, FL 32780
Big Joe	1671 S. Boeke Rd., Evansville, IN 47714
Nutcracker/	The Rogers, Rt. 3, Box 230, Bean Station, TN 37708
Wild Child	Bean Station, TN 37708
Captain	David Haire, 2406 Prince Ave.
America	Tifton, GA 31794
KIB-5764	The Yontz', Upper Mt. View
Kentucky	Dr., Pine City, NY 14871 The Krebs, 9919 Vega Lane,
Arrow	Valley Station, KY 40272
Unit 003	Scott 1017 F Adams Wash
	Scott, 1017 E. Adams, Wash- ington, IL 61571
Wagon Wheel	5725 Bienville, Brossard, P.Q., Canada J4 Z 1 V8
Ky, Kolonel/	Dewey Spencer, P.O. Box
Únit 1	12432, Lexington, KY 40583
Possum Pete	12432, Lexington, KY 40583 M.R. Taylor, 2021 N. Ave. G, Freeport, TX 77541
KBGZ-6868	Brooklyn, NY 11220
Cowboy Lee	Leon W. Kelley, R.D. 1, Leon Rd., Cattaraugus, NY 14719
Carpet Lady	Lula May Fox, Southwood Acres, Magnolia, DE 19962
The Tiny	Tom Stolte, Rt. 1, Box 220, McLouth, KS 66054 The Tucker's, Box 342, Star- tex, SC 29377
Train Master	McLouth, KS 66054
Johnny Reb/	The Tucker's, Box 342, Star-
June Bug NC-2642	Tex, SC 29377
140-2042	Eddie Clay Allred, Rt. 1, Box 238 Franklinville NC 27248
KND 6021	238, Franklinville, NC 27248 SFC, Alfred Eisner, 12609 Farnell Dr., Wheaton, MD 20906
Hansel/	The Smith's, 2222 E. 8 th,
Gretel	no. 122. Pueblo. CO 81001
Country	no. 122, Pueblo, CO 81001 Bill Davey, 2716 N. Congress
Gentleman	Rd., Camden, NJ 08104 Bryan McConnell, 2740 Nancy St., Orlando, FL 32806
Flordia	Bryan McConnell, 2740 Nancy
Cracker Mountain	St., Orlando, FL 32806
Man	James A. Hampton, 1210 E. Commerce Ave., High Point, NC 27260
Spray Can	Roger Rommelfaenger, 2133 No. 21st St., Sheboygan, WI 53081
Spark Plug	Chris Huston, 1124 High
KGC-1045	Bluff, Dubuque, IA 52001 The Blanchettes, 1 South St., Danielson, CT 06239
Madman/	The Spencer's, P.O. Box
Madman's	12432, Lexington, KY
Keeper	40583
Uncle	Larry Preestone, P.O. Box
Charlie 5	335, Brookston, IN 47923
Screaming	P.O. Box 5115, Security, CO
Eagle C.B. Radio	80931 Mitchell Stephen Rakoff, 64-
QSL Club of	33 98th St., Rego Park, NY
Greater NY Sandollar	11374 P.O. Box 2841, West Palm
Sandollar	Beach, FL 33402

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All persons who were issued CB licenses in 1965 or earlier are qualified to become members of the Pioneer CB'ers Society. Membership is free and an attractive certificate is issued bearing your name and PCBS membership number. To receive this, furnish us with your name and the original CB callsign you were issued in 1965 or earlier so that we can verify the license in our early CB Callbooks. You might also wish to (optionally) enclose one of your early CB QSL cards and tell us something about your early/present 11 Meter interests. Address all data to: Pioneer CB'ers Society, S9 Magazine, 14 Vanderventer Ave., Port Washington, N.Y. 11050.



ROM out of the dim and distant past gallops one of CB radio's first deluxe transceivers. A rousing cry of *Hi-Yo-Silver* as we peek back over the shoulder at the Tram TR-27B, a CB rig from the 1963 era produced by Tram Electronics of New Hampshire.

Let's start off by pointing out that this base station cost a goodly number of greenstamps, namely \$249! Even by today's standards this represents the cost of a higher-than-average priced CB rig, but if the cost of the rig was given a representative pricing in today's terms it would probably be a set selling for about \$750! And what did this set have going for it? The Tram TR-27B ran 6 crystal controlled transmit/ receive AM channels, plus a 23channel receiver. The circuitry produced 18-tube performance, including double conversion receiving. The transmitter had a pi network and a low pass filter. The series gate noise limiter was a great help in the receiver.

Regular features that might be found on other sets of the day were also part of its design, including an adjustable squelch, S/RF meter, 4 watts of audio output and 3.5 watts (minimum) transmitter output.

One of the major factors in the pricing of the Tram TR-27B was that it was carefully custom cratted by hand in an industry which was generally quick to take fullest advantages of automation. It was simply more expensive to produce, it took longer to assemble and Tram used components which were "mil spec" rated in many of the circuits. Production was basically not on a mass scale, and those who owned TR-27B were not only willing to shell out for such equipment, but were more than happy to flaunt the fact that they owned one of these limited production hand-assembled units.

Because relatively few of these sets were produced, today they are highly prized by collectors. A Tram TR-27B in mint condition was recently purchased by an antique CB buff for far more than its original selling price; in fact he paid \$450 and thought he had stolen it from the dealer who found it gathering dust in its never-opened factory cartonlost and forgotten for 15 years in a far corner of his warehouse. The collector told us he would have "gone over \$700 for the set, but people just don't seem to know what some of these historic units are worth these days, and how rare they are!" To the dealer (in Indiana) who let this gem slip through his fingers we send the message: If you find any more of these "old things" kicking around in your warehouse, better find out what they're worth before you play Santa Claus!

#### SOME OF OUR PCBS MEMBERS

Eddie Clay Alfred, a very active 11 Meter operator and enthusiastic *CB/-S9* supporter, is PCBS #56. From his home in Franklinville, N.C., Eddie started out in 1962 as KC13058. He had a collection of 3,500 QSL cards wiped out in a fire. As Eddie says, "What a loss!" Not one single QSL remained, not even a sample of one of his own cards! Eddie is on the Sidebands as SSB-170 and NC-2642, is a registered monitor as KNC4BG, and also member



#### SWS-40 in the Small World Society.

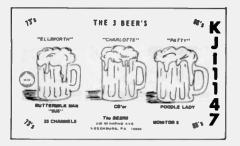
PCBS #57 is none other than Hartley A. Forbes, North Adams, Mich.,formerly and presently KLN8604 (few were the lucky operators who were able to hang onto their original callsigns). Harley's CB license came through in 1964 and he recalls that he ordered his QSL's from an ad here in *CB/S9*, which he has read since then. These days Harley is still active on 11 Meters; a long-time Sidebander, Harley is SSB-467 in the *SSB Network*.



Starting off in 1960, Stanley G. Marcus of New Haven, Conn., got one of these very same tacky (but very lovable) FCC callsigns. It was 1W8352. Stanley, now 76 years young, is licensed as KMA5765 and runs a Cobra 132-XLR base and mobile. At the base there is a Moonraker 4, and poking up from the mobile there is a K-40. Stanley says he's sorry he kept disposing of his old CB rigs as they were replaced by newer rigs because if he had kept all of the CB sets he had before he got his present Cobra he would have a massive collection of antiques right now! He's PCBS #58.

BUTTERMILK MAN, also known as Ellsworth Beers of Leechburg, Pa., is known to us as PCBS #59. His 1963 callsign came up as KJI1147, and he's kept that callsign over the years. An avid collector of QSL cards, Ellsworth

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has amassed about 10,000 QSL cards from all over the world.

Donald Hardy, Grand Rapids, Mich., arrived on the CB scene in 1963 as KDC1230. Don had a Lafayette HE-20-C and also a Courier, however he did have fantasies of getting one of those Regency *Imperial* rigs with the *double* sideband and running it *flatside*. At one time Don had a complete collection of old S9 Magazines—wishes he could still locate all of those copies! Don is PCBS #60.

Starting out as a Class B CB'er on 465 MHz, Harry Abery, Jr., of Hartford, Conn., entered 27 MHz CB as 1W3586 almost as soon as licenses were first issued in 1958. Over the years he accumulated many CB callsigns, and his current CB call is KXY5884. A photo of Harry's communications console appeared in the January '78 issue of S9. A fan of monitoring the shortwave bands (and VHF too), he has 42 countries verified at this point. Color him PCBS #61.

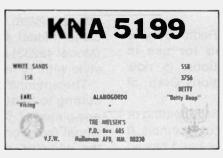


A double header! Harry (UNCLE PETE) Wann, formerly KHD8996, and his son, Tom, ex-18W4119, hail from Pleasant Lake, Indiana. They started out with a Heathkit *lunchbox* and a ground plane. These CB'ers were among the early members of the Maumee Valley CB Association, and UNCLE PETE sent us a program booklet for the 1964 Roundup of that club. After the Heath rig, they used a Tram 203, but these days it's a President Madison and SSB operation. This CB'ing team is PCBS #62 and #63.

I don't know if any readers recall the old "Who's Who in CB" directories S9



used to publish back in the 1960's, but the 2nd edition listed KNA5199, Earl Nielsen, except his name was spelled wrong (thanks for bringing it to our attention). Earl, of Alamogordo, N.M., is USAF Ret. and is known as SSB-3756 and WHITE SANDS 158, also PCBS #64. He started off in CB with two Hallicrafters rigs and a Frazer Amazer 1/2-wave fiberglass antenna (he thinks it was one of the first such whips on the market). After 22 years in the USAF and Vietnam ('66), Earl is content to enjoy the beautiful New Mexico sun, talk on the Sideband, and watch for the arrival of the new issue of S9 (he has every issue except the January 1967 copy which he loaned to a friend).



PCBS #65, Ed (MR. ED) White, formerly KKA8191 (now KBV7885 and WB1AKR), of New Milford, Ct., started out in 1964 with a Courier 23. Ed likes to read about CB's colorful history and says he's hoping that in 15 or 20 years S9 will be running information on today's CB scene!





We've got a photo this month from Ron Poloske, PCBS #66, who was issued his callsign of KBC2706 in 1963. Ron hails from Hooksett, N.H. and has some nifty looking wallpaper on display at his radio shack. Ron is a member of the *Small World Society*, SWS-2728, and is also 9-America-528.

Several readers have written in asking about some of those old style FCC CB callsigns such as 2W8830, 2A0305, 24W2424, 11W7767, etc. The question which has been asked is that in the July issue (page 17) there was a listing of some of the first licensees in the Class D CB service on 27 MHz. Problem being that the callsigns we listed for these people were ones like 4W0327, 19W1280, etc. So readers have asked why these people, being "first" didn't start off with callsigns like 4W0001, 19W0001, etc. The reason for this is that the FCC had been issuing CB callsigns from this series of callsigns long before Class D came along in 1958-being issued for Class A CB, Class B (low power UHF), and even Class C (radio control). The call 19W0001, in fact, was issued to AI Gross, who designed the first commercially produced CB set (465 MHz) in the late 1940's! When Class D came along in "19W-land" (Ohio) in 1958, 1279 people had gotten licenses for other CB, so that's why 19W1280 was issued as "a first." In some areas the Class B stations were issued callsigns with the letter "A" instead of the "W" before the Class D service came along. To make things more confusing, after Class D got started the FCC found that in areas where CB was popular they eventually started running out of "W calls (they hit "9999"), so they started issuing "A" calls to the Class D stations! To further complicate the situation, after all of this had taken place they found out that all of these callsigns were in violation of international agreements and were (I guess you might say) "illegal," or at the very least "unauthorized." Clear as mud, right?

Looks like we've run out of space (darn it) for this time. But we'll be back next month—hope you'll be with us!

# **THE MONITOR POST** RICK MASLAU/KNY2GL SCANS THE CHANNELS



#### **REPEATER SYSTEM**

**K**PTS-GMR-2, a General Mobile Radio Service UHF/FM repeater system intended for use in business and personal communications, is now available from Standard Communications Corp. of Carson, California.

The RPTS-GMR-2 provides automatic repeating or local duplex operation on a single pair of channels. It requires a 120 VAC, 60 Hz power source and has an RF output of 50 watts. It also includes a control for squelch threshold, repeat level and instantaneous deviation control as well as a receptacle for external control and multiple tone panel. The transmitter and receiver sections are individually enclosed in steel compartments for RF integrity, and the front panels are designed for 19" rack mounting. Crystals for the transmitter and receive frequencies are included and installed at the factory.

Operating in the 460-470 MHz range, this system is rated for continuous duty. The system features solid state tuneable tone modules, and a tone panel that comes equipped with 14 tones. It can be factory or field adjusted.

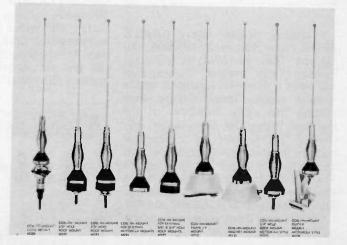
To obtain a copy of the new catalog sheet on the RPTS-GMR-2 write Standard Communications Corp., P.O. Box 92151, Los Angeles,CA 90009. A newly designed line of 138-174MHz 3dB gain antennas, featuring the Antenna Incorporated coilin-mount low profile design, is now available from Antenna Incorporated.

This new series of 138-174MHz low profile 3dB gain antennas should suit most professional and municipal applications. In addition, it gives the customer a choice of mounting configurations.

The new antenna has an airwound loading coil that is placed in the low-profile mount. This unique Antenna Incorporated coil-in-mount design, which requires fewer mechanical and electrical connections and fewer resistive contacts between loading coil and cable terminations, contributes to the antenna's exceptional performance characteristics. The antenna is rated at 100 watts maximum power with nominal impedance of 50 ohms. VSWR is 1.5:1 or less.

Mounts available include the cowl mount (Models 42220 and 42220N), 3/8" snap-in mount (Models 42221 and 42221N), 3/4" hole mount (Models 42224 and 42224N), trunk lip Motorola style (Models 42232 and 42232N) and 3/4" Motorola style hole mount (Models 42234 and 42234N). The "N" in the model number indicates no in-line connector. Other mounts are the existing Motorola mount without cable (Model 42226), existing 3/8-3/4" hole mount without cable (Model 42227), magnet mount Motorola style (Model 42233) and the Spring Gutter Mount Motorola style with 10 feet of coaxial cable (Model 42235).

The antenna's 49" whip, which is ample length for cutting to frequency, is made of triple-chrome-plusone plated 17-7PH stainless steel. This provides more signal radiation and reduces the skin effect losses in the radiator so that heating is insignificant. All antennas include 17 feet of RG-58/U coaxial cable



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and PL-259 connector unless otherwise indicated.

For further information on Antenna Incorporated land mobile antennas, contact Antenna Incorporated, 26301 Richmond Road, Cleveland, OH 44146.

#### FOUR CHANNEL RADIO

Motorola's MAXAR 80 underdash FM two-way mobile/base station radio line has been expanded with the addition of four-channel models in VHF and UHF. Previously the MAXAR 80 radio was available in one or two channel models.

Because the MAXAR 80 radio has a single layer modular construction, the radio takes up about the same space as a telephone. In spite of this small size, however, the MAXAR 80 radio provides "big radio" power ratings of 25 or 50 watts in VHF, and 30 watts in UHF. As this high power has been combined with increased selectivity, sensitivity, and intermodulation protection, the MAXAR 80 radio operates at top performance in both congested urban areas and sparsely-populated rural environments.

Ideal for fleet operations in agriculture, industrial, law enforcement, education, trucking, and government operations, the MAXAR 80 radio comes equipped with a locking, two-part trunnion for easy mounting under the dash, overhead, or virtually anywhere providing convenient operation. All of the MAXAR 80 four frequency radios utilize an external



speaker which contains a built-in mounting bracket for easy installation. When installed the radio can be removed with a flick of a key, providing greater security while the vehicle is unattended. With such quick and easy installation, fleets with more vehicles than operators can be set up so that each vehicle has a separate trunnion, cabling, speaker and antenna. With this set-up each operator can easily maximize radio usage by taking a MAXAR 80 radio and switching it from vehicle to vehicle.

Options/accessories for the MAXAR 80 radio include a public address system with a six watt amplifier, a choice of one, two or four frequency operation in the most popular land mobile bands, tone-coded squelch message selection options, a time-out-timer, and gain antennas. (continued)



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For further information about the MAXAR 80 Mobile/Base radios, contact Motorola Literature Distribution Center, 2122 Palmer Drive, Schaumburg, Illinois, 60195.

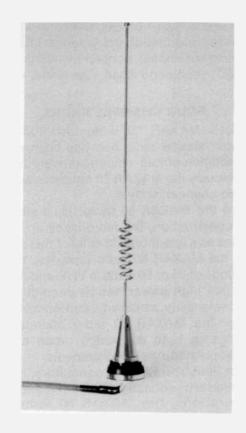
#### POCKET SCANNER RECEIVES BOTH AIRCRAFT AND GROUND CONTROL COMMUNICATIONS

The world's first pocket-size scanner radio capable of receiving both the VHF-AM aircraft channels and UHF-FM channels has been introduced by Electra Company. For the first time, airport officials, operating personnel, pilots and others interested in airport operations can carry in their pocket a single radio which will keep them informed of both towerto-plane and ground control communications. The new "Bearcat® Thin Scan Aircraft" scanner is just 2¾inches wide, 1-inch thick, and weighs a mere 10 ounces, making it a true pocket portable. The radio is capable of receiving up to 4 channels in any mix of the two bands covered. Each channel is provided with a lockout control for by-passing when desired.

The new pocket scanner features sturdy construction with anodized aluminum front panel to withstand demanding on-the-go use. A flexible "rubber ducky" antenna is supplied, but the radio can also be used with a wire antenna. The radio can be operated from external power, as well as from internal batteries. Also contributing to the radio's versatility are provisions for plugging in an external battery charger, headphone and external speaker.

Complete information on the new Bearcat Thin Scan Aircraft scanner is available from Bearcat scanner suppliers or directly from Electra Company, P.O. Box 29243, Cumberland, Indiana 46229.





#### RUGGED 3 dB GAIN WHIP FOR 800 MHz

A new high-performance 800 MHz mobile gain antenna for rooftop or flat-surface mounting has been announced by A/S. Designated model ASP-920, the new vertical collinear antenna produces 3 dB gain at the horizon using a rugged one-piece radiator element consisting of 5/8-wave top section, phasing coil and I/4-wave lower section. The antenna covers the entire 806-866 MHz frequency range and requires no tuning. Flexing the phasing coil has no significant effect on performance. Designed to withstand considerable abuse, the one-piece radiator is made of a new cryogenically treated whip material, CRYOTECH-302, with mechanical characteristics superior to those of previous stainless steels. The whip can be quickly and easily removed for a car wash without affecting the mount waterproofing. Radiator is Dura-Con™ plated to increase conductivity and reduce skin effect losses. Overall length is approximately 14<sup>1</sup>/<sub>4</sub>".

Model ASP-920 is complete with standard 3/4"hole "low profile" mount, 17 feet of A/S exclusive Pro-Flex 450/II™ low-loss cable and Teflon® insulated PL-259 connector. A similar model, ASP-920N, is supplied with a field-installable type "N" connector and, for existing Motorola 800 MHz installations, a replacement unit, ASP-925, is available without mount or cable. The new antennas are the latest phase of the Antenna Specialists' 800-900 MHz program which has been under development for several years. For further information contact: The Antenna Specialists Co., 12435 Euclid Ave., Cleveland, Ohio 44106.

#### 2 METER CUSHCRAFT YAGI

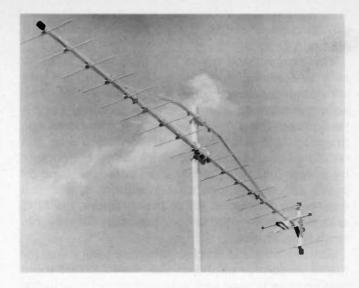
Cushcraft introduces the new Boomer 3.2 wavelength yagi for VHF high band scanners and for two meter DX amateur band communications. The antenna exhibits 16.2 dBd forward gain and 24 dBd front to back ratio. It has a high efficiency balanced feed system with integral balun. A trigon reflector contributes to Boomer's precise pattern. Mechanical features include a large diameter round boom, reversible truss supports, high strength aluminum mounting plates and all stainless steel hardware.

Boomers have already established new EME and two meter contest records. Two or four Boomers can be easily stacked using Cushcraft power dividers, coaxial cables and stacking frames, for up to 22.2 dBd gain. More information is available directly from Cushcraft Corporation, PO Box 4680, Manchester, NH or through most local ham dealers.

#### FREQUENCY PROPOSED FOR AIR-TO-AIR HELICOPTER COMMUNICATIONS

The Commission has proposed amending its rules to make available the frequency 123.025 MHz for helicopter air-to-air communications.

The proposal was in response to a petition by the G. H. Hart Company, Inc., requesting a separate frequency for helicopter air-to-air communications



in the Houston, Texas, area. It specifically requested a frequency for the Houston area because increased helicopter traffic in the Gulf of Mexico over the last four years had crowded the available air-to-air frequencies. However, the FCC said that such a frequency assignment should be given consideration over a wider area.

In earlier action, the FCC made available additional frequencies in the 121.9625-123.0875 MHz band for private aircraft use. The frequency 122.750 MHz was made available for shared use by unicom stations at



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private airports and by private aircraft for air-to-air communications.

The Commission noted that helicopters must be able to communicate with each other quickly and without interference due to the nature of their activities and their restrictive flying patterns. It said it recognized the rate at which helicopter use has grown, due in large part to offshore oil drilling and natural gas exploration, but also to use of helicopters by private industries to transport personnel, and by public safety agencies for surveillance, traffic and emergency functions. All of these factors, the FCC said, have contributed to congestion on the available radio frequencies.

Although the 25 kHz channels were designated for future unicom or multicom use, the FCC said there was an urgent need to provide a means for airborne helicopters to intercommunicate and thus proposed assigning 123.025 MHz for helicopter air-to-air communications.

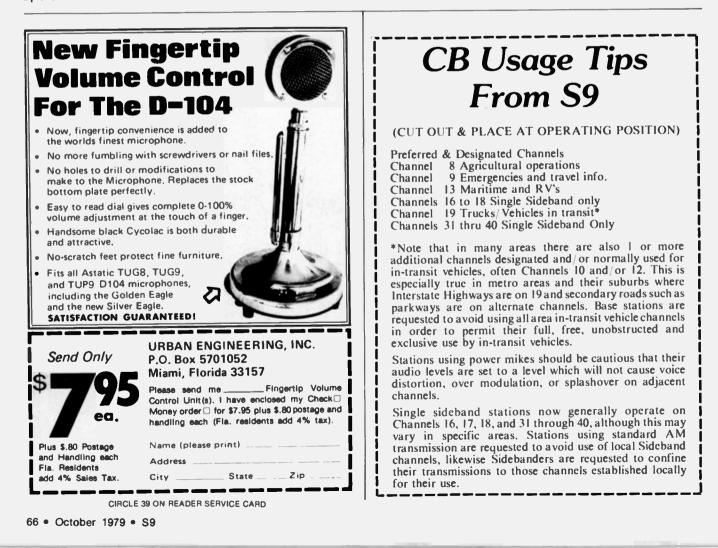
#### **VOICE FREQUENCIES IN THE 216-220 MHz BAND**

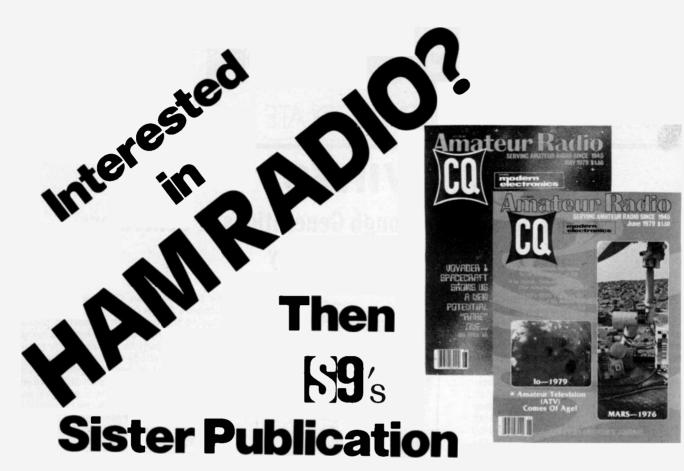
The FCC has determined to waive Section 90.259 of the rules until July 1, 1980, to allow the type acceptance and operation of radio equipment employing F3 emission in the 216-220 MHz band, provided it is part of an authorized telemetering operation. The Commission has not waived the rule beyond the July 1, 1980, date because of the proposal before the 1979 World Administrative Radio Conference that the 216-220 MHz band be reallocated to the Maritime Mobile Radio Service.

Pursuant to this waiver of the rules, applicants eligible to use frequencies in the band 216-220 MHz may transmit voice communications (F3 emission) in addition to telemetry provided this voice communication is adjunct to the telemetering operations. F3 emission in this band is authorized only for testing purposes and for essential functions preparatory to the commencement of telemetering. All voice communications are secondary to telemetry, and no voice communications will be authorized in this Band except as an essential adjunct to authorized telemetering operations.

All transmissions in this band are secondary to Federal Government operations. Federal government frequencies lying between 25 and 470 MHz are listed in "The Top Secret Registry of U.S. Govenment Radio Frequencies" by Tom Kneitel. This registry is \$4.95, ppd., from CRB Research, P.O. Box 56, Commack, N.Y. 11725.

In the meantime, the FCC has authorized the Phillips Petroleum Company to operate and market a seismic telemetering system having a voice capability (F3 emission) in the 216-220 MHz band.





A recent survey of CB Radio/S9 readers indicated that two out of every three replying to our questionnaire would like to become an amateur radio operator. And we're all for that, because CQ the Radio Amateur's Journal, is the oldest magazine in our company's stable.

CQ is not just another ham publication; it's the only ham publication aimed at the beginner as well as the old timer. It's the only ham magazine that recognizes that every new ham isn't an electronic engineer. The editorial features in CQ are aimed at people – people like yourself who turn to amateur radio as a means of having fun.

CQ caters primarily to the operating end of radio, with just a smattering of technical material to keep you up to date on what's happening. And even the technical portions of CQ are presented in a manner that every new amateur will understand.

In other words, CQ is the fun magazine in the amateur radio field. It's the amateur magazine that you'll enjoy from cover to cover. And remember, CQ is brought to you by the same folks who bring you S9. What more could you ask for?

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# BETTER LEIGHTON, CHOCOLATE MOOSE

# WIRES

### A History of the CB Through Generations of Generators By Commitz Haley

It was the summer of 1776 and the fever was hot. The Revolutionaries were burning. "Turn off the heat!" they shouted. "It's almost July already!" One could see a dissatisfaction growing, and a confrontation was just over the horizon (well, just over the horizon and a little bit to the right).

In England, opposition was just as fierce. The Mother Country was not ready to set its tenants free, no matter how much they complained about the heat. Eighteenth century CB records show this conversation taking place between the British and the Revolutionaries:

England: "If you can't stand the heat, stay out of the kitchen."

Revolutionaries: "Too many cooks spoil the broth."

England: "I am not a cook."



Ben Franklin's brother Franklin discovers citizen's band.



Issue no. 2 of Ben Franklin's famous publication.

Revolutionaries: "But are you not your broth's keeper?"

England: "Finders keepers, losers weepers."

Revolutionaries: "That's a 10-4, you win, Mother Country."

And so the Revolutionaries gave in to the demands of England. For a short time, the dispute was over.

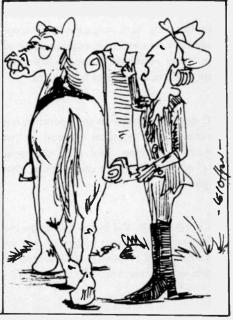
That is, until late one night when a young man named Paul Revere received this strange message: "10-1 if by land, 10-2 if by sea." Unable to understand this cryptic CB lingo, Revere stayed up all night listening for further information. At 3:22 AM, his rig picked up a series of fuzzy broadcasts, so full of static that he could hardly decipher a word. Immediately, Revere jumped on his horse and galloped through the streets, yelling "The British are coming in badly!" The British are coming in badly!" Local townsfolk responded by getting out of bed, grabbing their shoes, and throwing them at him.

Historians like myself are only today realizing the important part the CB played in the American Revolution. Intensive research has shown that many of our bestloved legends had CB origins. For instance, General George Washington did not actually throw a silver dollar across the Delaware. He was reported *doing* 'silver dollars', that is, going 100 miles per hour (as in 'double nickels'), across the famed river. His convoy was later arrested and fitted with wooden teeth.

Ben Franklin also was an avid CB'er. Franklin is credited with the publication of the first American CB newspaper, "Poor Richard's S9". A clever little tabloid, it was filled to the brim with humorous phrases such as "A bird in the hand makes a hell of a mess" and "Early to rise and early to bed, will lead everybody to think you are dead."

The manner of operation of these CB's was primitive by today's standards, but very effective nonetheless. All messages were delivered on horseback by Minutemen. Varying amounts of Minutemen had to be employed, depending upon how far away your Good Buddy was (5 minutes away=5 Minutemen). Upon arriving at the desired location, the Minuteman would get off his horse and 'read the minutes' or, relay the message. A tip was usually given. (Minutemen relaying messages to General Washington were warned not to take any wooden teeth).

So it was that the CB, or Ye Concorde's Bande, as it was known, played its role in Revolutionary times. Just think—if CB hadn't been around for the Revolution, then Ben Franklin might never have gotten to be President! And that's certainly something to think about.



"Reading the minutes." Slow speakers "read the hours" but were paid by the day.



# The Radar Column by "Jammer"



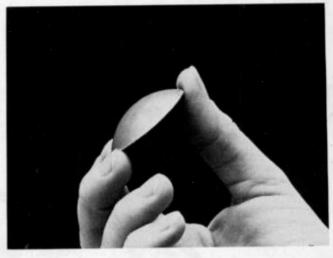
HERE'S what happens when a state, like New Hampshire, passes a law to make radar detectors legal. Even the horses put them on.

Since these 2 work-horses never part, only one need sport the remote mount Whistler Radar Eye with the high-performance electronics. This is the ghee (R) horse. The haw (1) horse dons the matching dummy.

Whistler Division Controlonics Corporation, manufacturer of Radar Eye speed radar detectors, is located in Littleton, Massachusetts.

#### THE BACK DOOR

A company called "Mister Transistor" (4033 N.W. 33rd Ave., Gainesville, Fla. 32601) is producing a gizmo called "the Back Door." The manufacturer claims that "rear clocking" (that means using a picturetaker as you head away from the machine instead of as you head towards it) is in the increase. The idea behind the "Back Door" is to cause dashmounted radar detectors to sense this type of



clocking; it mounts to the window and doesn't in any way decrease forward range or sensitivity. If you want more information on this thing, we suggest that you contact John Valenti at "Mister Transistor" and tell him that you read about it here!

#### NEW, IMPROVED SIDEWINDER XK POLICE RADAR DETECTOR

Rigel Systems has announced that a new generation of their Sidewinder-SK Radar Detector is now available. It has a new front-end design that reduces false alarms to an absolute minimum, plus advanced circuitry to provide protection against the new K Band Coded-pulse guns now being used by the police.

It offers that unique feature, "Fore & Aft"

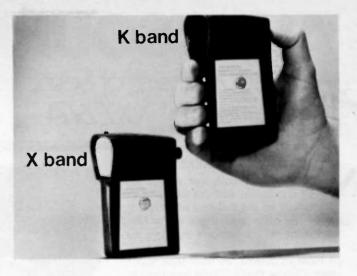


monitoring, with a single unit (Patents Pending). The Sidewinder monitors both the X and K Bands, too.

The super compact unit (2" x 2.25" x 3.75") has an extruded, solid-aluminum case with black matte finish that houses the solid-state integrated electronics, high gain antenna, sensitivity control, on/off lamp, and the dual advance-warning media (light/sound).

Actual range of the Sidewinder XK varies with ambient conditions, but the average is roughly six times the "reach" of the best police radar, whether stationary, moving-car, or handgun.

The complete Sidewinder package includes the detector and the universal 4-way mount options (visor, dash, windshield or trim-strip). A special adaptor is now available that permits permanent wire-in to the vehicle's electrical system without loss of sensitivity. All Sidewinders are thoroughly burned-in prior to shipment. Each unit carries a one-year warranty. Write Rigel Systems, 2974 Scott Boulevard, Santa Clara, CA 95050.



demonstration and comparison of radar receivers. Each "Tester" operates on a tiny 9-volt battery.

Pocket radar guns are available to Whistler distributors as single units, X-band or K-band, or as a pair.



#### "COPPER STOPPER"

The "Copper Stopper" has an *under-dash* control box and an antenna intended for installation behind the car's grille. Placing the control box under the dashboard eliminates any possible problems with standard radar detectors placed on top of the dash. The "Copper Stopper": deters theft, eliminates visual obstructions, avoids provoking police retaliation, and does not clutter your car's appearance.

The unit offers both a visual and audible alarm system and on/off switch. An optional rear antenna plugs into the front antenna control box.

For further information write Chicago Radar Corporation, 414 Plaza Drive, Suite 208, Westmont, Illinois 60559.

#### **POCKET SIZE TESTERS**

Whistler has developed X-band and K-band pocket radar guns. The mini-guns are used for on-the-spot

#### **NEW DETECTION UNIT**

Now available from Radio Shack is a new, highly sensitive radar detector that is said to allow maximum reaction time to both moving and stationary X-band and K-band radar.

The automatic flashing red visual warning light and audible warning signal pulse as the car approaches radar. It is said to operate efficiently even over hills and around corners, where most other radar detectors fail.

The state-of-the-art electronic design keeps false alarms at a minimum by rejecting all non-radar signals.

Features include volume control, green power-on indicator, adjustable sensitivity for city and country driving. Size:  $6\frac{1}{2} \times 4\frac{1}{2} \times 3\frac{1}{2}$ .

The Micronta Road Patrol LR Radar Detector is available through Radio Shack stores and participating dealers in the United States and Canada.



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

#### 8-TRACK VS. CASSETTE

Once upon a time, car sound just meant car radio, and the controls we discussed in the last two installments were the only ones there were. (And some of those weren't even in existence, then.)

Now, of course, we have tape, too. In fact it's tape that's led the way towards today's high-class, high-priced stereo systems. There was stereo tape in cars before there was stereo FM there...before there were 8-track cartridges or cassettes, in fact.

The first tape system made for the car was a four-track, endless-loop cartridge system, using the same quarter-inch tape used in open-reel recorders. It showed the way to in-car stereo playback systems, but was soon eclipsed by the 8-track cartridge from Lear-Jet...a company led by Bill Lear, who'd worked on the first car radio, 20 years ago.

The 8-track cartridge packed twice as much onto a tape, because it packed it into twice as many tracks (each half the width of those on a four-track tape, of course). Its cartridge was a little easier to grip, the mechanism required to play it was a little simpler, and 8track soon swept 4-track tape out of the automotive field. (The original cartridge format is still used in radio broadcasting. Odds are, most commercials you hear on the air are in such cartridges.)

When the cassette first appeared, it wasn't considered seriously as a music medium, and the first cassette unit for the car was just an under-dash tray to hold a standard, monophonic portable recorder. Even then, though, proponents pointed out how much more compact cassettes were than 8-track cartridges: four cassettes can fit into



Deeply recessed tape slots, as on this Kraco KID-588, sometimes help you ease the tape in without taking your eyes off the road. Note, too, the radio dial, angled upwards towards your eye.

one 8-track box.

By the time cassette units for the car arrived in the U.S., 8-track units were so well entrenched that you could even order one built into your new Detroit car at the factory. Cassette sales, consequently lagged behind 8-track till a year or so ago. In Europe, though, where 8-track hadn't yet caught hold, the cassette started with a big lead, and never faltered.

In talking about features and controls to look for when shopping for an in-car tape system, the first point to consider is which tape system to get, and where to mount it—in your dash or somewhere underneath. Since both questions were covered at some length in the May S9, here's just a quick review:

Eight-track's major selling point is continuous listening with low price: push in the cartridge and it plays forever, or at least until you pull it out. Cassette, by contrast, plays to the end and stops there—unless you have an auto-reversing cassette deck, which costs noticeably more. But since there



Typical 8-track controls on this Pioneer TP-727, include the program selector button and lights (upper left), track-Repeat button, and Fast-Forward. No rewind, though.

are three track-change interruptions when you play a cartridge through (cassettes are only interrupted once), and since slow fast-forward and no rewind at all (which may change, soon) make it hard to get back to the beginning of a tape once it's started, 8track is better for pop music, with its many short selections, than for longer classical and other works. And pop recordings on 8-track are plentiful, if not as plentiful as they once were.

Cassette's better suited to long pieces, though: you can rewind or fastforward to either end of the tape in a jiffy, so you can start even Beethoven's 9th from the beginning. The same fastwind convenience, and the cassette's long, uninterrupted recording capability, made it far more popular with home recording fans than 8-track was. And that, in turn, meant that more money went into cassette. Consequently, all the new advances in recording (Dolby, improved tapes, and so on) became common in tape long before they became available in 8track-if they ever did.

In-dash players are easier to reach, but harder to install...which makes them harder to steal, too (but not impossible, alas). Under-dash players are sometimes hard to reach, and often take up legroom. Left in the car, they're absurdly stealable— but they're easy for you to remove to a safe place. And you can share one, with slide-in mounts, between several cars.

In-dash players come with AM and FM radio, almost inevitably. Underdash players come with no radio or with FM only, on the assumption that there's probably an AM radio in your dash.

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#### 8-TRACK CONTROLS AND FEATURES

Eight-track is older, and has fewer features to discuss. So let's discuss them first, before moving on to cassette features.

It's possible for an 8-track player to have no tape controls at all: stick in the tape, and it starts playing, continuing till you pull out the cartridge again. Even such a simple system will usually have four lights to tell you which of the cartridges four pairs of stereo tracks is playing. There will usually be at least one more control, though: a button which advances the tape to the next track.

Many 8-track players have repeat buttons as well, which play the same track pair (or "program") over again instead of automatically advancing to the next one. Some 8-track units can be set to stop at the end of the tape's last "program," instead of automatically continuing on to the tape's beginning again.

A growing number of 8-track players have fast-forward switches, too. The forwarding's not too fast, though: about two to three times the tape's normal playing speed is all. A fastforward switch that can be locked down is therefore useful—even more useful, in fact, than on a cassette player, since without it you may have to hold the fast-forward switch down for five minutes or more to get completely through a tape. (And if you hold it down too long, and pass the spot you want, you can't rewind back to it, either.)

#### CASSETTE CONTROLS & FEATURES

About the only controls cassette and 8-track usually have in common are fast-forward and, on some machines, an Eject lever or button. Cassette has no program switch or lights—but it has more than enough other features that 8-track lacks.

Most useful of these is the rewind button. Cassette isn't like a Monopoly board, where you can't get back to the space behind you till you've gone all the way around past GO again. With rewind, you can take the shortest path to any location on the tape, backwards or forwards. You can get there faster,



This Pioneer KP-5005 ejects the tape automatically, but there's a manual eject lever, too, with rewind/fast-forward at the other end of the tape slot.

too: fast-wind times for cassette players commonly run two minutes or less. Again, a locking feature makes the fast-wind handier. Handier still is a forward/rewind that starts working with a slight push, but needs a bigger push to lock. With that, you can easily move the tape a short distance without having to unlock the control, or lock it down for longer winding.

Another motion control you won't find on 8-track is a tape-play direction switch. That's a sign of a reversing deck, that plays both sides of the cassette without your having to eject the cassette, flip it, and reinsert it with the other side on top. Virtually all such decks are auto-reversing, and most have tape-direction indicator lights, too, to show you which way the tape's moving.

Cassette deck "repeat" features usually differ from the single-track repeat of cartridge systems. When you rewind a tape to its beginning, the repeat circuit automatically switches into play, saving you an extra buttonpush.

Many decks that don't reverse the tape when it ends automatically eject it instead; even some auto-reverse decks offer this feature. Since it's not a good idea to leave the tape and mechanism engaged when the tape ends or when you turn the power off (and since it's not a good idea for the power to stay on indefinitely if your car doesn't turn off the car-stereo circuit when you shut off the engine), many decks will shut off completely at such times, with or without ejecting the tape. Jensen's stereo units beep when you turn off your ignition, to remind you to remove the tape.

Whatever controls your chosen system has, make sure you find them



Newer cassette units, like this Altus CS 052 have Dolby noise reduction and settings for both CrO2 and normal tape.

comfortable and easy to use. That's largely a matter of taste. I, for instance, find fast-wind levers that swing in the direction you want the tape to travel to be easiest to use and understand. But others prefer pushbuttons. Whatever your preference, there are models around to suit it.

Not all controls are concerned with the tape's physical motion. More and more tape decks these days have Dolby switches, for example. Dolby noise reduction is used on virtually very home cassette deck and virtually every commercially-recorded cassette, to minimize tape hiss. You can play Dolby tapes back on a deck without a Dolby circuit, but they'll sound a little shrill. Turning down your treble control (if your deck has one) helps reduce the shrillness (and even the noise) a bit; but a Dolby playback circuit makes the sound just that much truer. On the newer models, the Dolby circuit can be switched in when listening to FM, too-some stations now broadcast with Dolby noise reduction.

You get better highs and lower noise with chromium or chrome-equivalent recording tapes (and better still from the new metal tapes now trickling onto the market, if your home deck is equipped to record on them). But again, the sound will be a bit shrill when played back on a system that's not really prepared for them. With a CrO2/Normal switch, you can get the best possible playback from regular or super tapes. (Sanyo, for some inscrutable reason, labels their tapematching switch "Head".)

A few-a very few-cassette systems for the car let you make recordings as well as play them back. That's handy for dictating as you drive; and in many cases you can use the system to record interesting radio programs from the system's tuner. But if you can't find an in-dash recorder that offers you all the other features you need, don't fret-at least, not if you only need it for dictation. There are plenty of small recorders you can carry with you for in-car dictation; it's only in playback that you need the extra power (among other things) of a built-in sound system.



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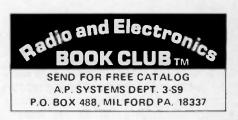
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