

MEMBERS PRESENT: Chairman Stewart
Vice Chairman Sader
Mr. Thompson
Ms. Foley
Mr. Beyer
Mr. Price
Mr. Chaney
Mr. Malone
Mrs. Cafferata
Ms. Ham
Mr. Banner

MEMBERS ABSENT: None

GUESTS PRESENT: J. Gregory Damm, State Public Defender
Bryce Wilson, TARA and SNARS
Keith Lee, Ribeiro Builders
Rich Molezzo, Self
Ed Mantipty, REACT
Joe Cathcart, City of North LV
Bil Curran, Clark County District Attorney's
Office

Chairman Stewart called the meeting to order at 8:05 a.m. He summarized for the Committee the number of bills which have been referred to the Judiciary Committee, and noted much has already been accomplished.

AB 253: Provides penalties for interrupting emergency radio communications.

Mr. Malone, Assemblyman for District 4, testified first on this bill. He explained that due to a mix-up, those individuals whom he had expected to be present to testify on this bill were unable to be present.

Mr. Malone stated that Texas and California are the only two states which provide penalties for interrupting CB communications at the present time. (See EXHIBIT A.)

Mr. Malone noted AB 253 is an entirely new section of law. He explained that subsection 1 of this bill defines the term "emergency", subsection 2 defines the misdemeanor violations, and subsection 3 defines the felony violations. He pointed out that one portion of this bill should be amended: the word "emergency" should be added before the word radio and the number "nine (9)" should be added after the word channel, both in line 11 of the bill. This is because channel 9 is the only emergency channel in Nevada.

Mr. Malone said that EXHIBIT A gives an explanation of why and when this law was implemented in Texas. He said AB 253 is modeled after this Texas law.

As background it was noted that channel 9 is used mainly for such occurrences as accidents, calling for ambulances, calling for fire or police department assistance, etc. REACT members use this channel frequently.

It was pointed out that there are individuals who purposely break in on emergency channel 9 and interrupt calls for help. These people can actually prevent such calls from being completed.

Mr. Ed Mantiply, a member of Las Vegas REACT, testified next. Mr. Mantiply confirmed Mr. Malone's testimony and played a portion of a tape recording of interruptions which actually occurred. Mr. Mantiply went on to explain how REACT operates and the importance this group places upon the emergency channel 9. He stressed that the interference to which he has referred is definitely intentional, and that according to the Federal Communications Commission (FCC) it is quite illegal; unfortunately, the FCC does not have the necessary manpower to be able to strictly enforce all their regulations.

Mr. Stewart wondered if AB 253 might be superseded by the FCC regulations and noted this is one aspect of the bill which should be further researched.

Mr. Mantiply then explained some of the technical aspects as to how this interference is accomplished, and how one would go about locating and/or identifying the party responsible for this interruption. Several of the Committee members confirmed and added to this information; all had nothing but praise for the REACT people and their work.

Mr. Chaney raised the question of how it would be possible to prove: a) that the injury or damage occurred as a result of the interference, and b) that the injury or damage can be monetarily determined to be in excess of \$1,000. He noted he was in favor of this bill, but felt this portion might need some reworking.

Mr. Mantiply then described EXHIBITS B, C, and D, which provide additional information on the subject, including the FCC regulations dealing with CB radios.

Mr. Chaney next questioned who would be responsible for enforcing this law, and what would be the fiscal impact, if any, of this. It was explained that local law enforcement authorities would be responsible for catching these individuals; it was not clear how much of the required equipment was already available, how much could be made available via the REACT people, and how much, if any, would need to be purchased. It was felt that only after the law had been in effect for a period of time could this be

even estimated, never mind determined. It was also pointed out that should a member of REACT, or anyone, find a violation, the enforcement agencies would immediately respond.

Next to testify was Mr. Joe Cathcart, City of North Las Vegas. Mr. Cathcart explained his background in communications. He noted that channel 9 is used as an emergency channel throughout the U.S. and said that any help law enforcement agencies can get in order to keep this channel clear for emergencies is well worth the effort. He explained that in the past, private citizens, especially REACT personnel, used to track those causing interference and then turn them over to the FAA when they came to town for their regular licensing sessions. AB 253 would enable police agencies to make arrests whenever people causing interference are discovered, be it by the police themselves, by REACT, or by others.

Mr. Chaney again raised his concerns regarding the wording of subsection 3. Mr. Stewart noted he had a point, in that usually in a felony the people understand that they are causing injury; in this case, the injury is so remote the individual can only guess if his actions have caused any injury. Mr. Stewart went on to point out, however, that this law is modeled after the Texas statute, which has a similar section. Mr. Stewart also agreed with Mr. Chaney that proving the physical injury was a result of the interference could be extremely difficult.

Ms. Ham wondered if this bill were necessary at all, since the FCC already had the power to handle these situations. Mr. Stewart noted that it would be best if the Committee studied the FCC regulations in order to determine whether they supercede this legislation; if not, there are many instances where an action is both a federal and a state crime, and given the earlier testimony that the FCC simply does not have the manpower to enforce this legislation, it might be advantageous to pass AB 253.

Mr. Bryce Wilson testified next. He said he was representing, as a member, the Sierra Nevada Amateur Radio Society and the Tahoe Amateur Radio Association. Mr. Wilson indicated he is both a Ham Radio and CB Radio operator, and then went on to explain the differences between the two. He stated he agreed with everything that has been said so far, and noted there is no question that this is a major and very difficult problem. Mr. Wilson pointed out that the FCC does get convictions for this crime, and that the technical problem of finding a specific station during a one minute sequence or a series of 30-second transmissions is a difficult one. He noted that since something is being done about this problem, he does not think it advisable to saddle the state, or the local law enforcement agencies, with this problem. He said this would a) be a duplication of effort, b) be expensive, and c) since these agencies do not presently have this capability, it would have to be funded.

Mr. Wilson reiterated that the Committee should study this problem

carefully and determine just how far the state should go in the enforcement of AB 253 should it be passed. He again pointed out that the burden of enforcement rests with the FCC at present. In reply to Mr. Stewart, Mr. Wilson said the FCC does monitor and police malicious interference; Mr. Wilson stated, however, that while enforcement is being provided there is not enough of it.

Another point raised by Mr. Wilson is that, should AB 253 be passed but the necessary funding for enforcement not be provided, the sick mind that enjoys causing the interference in the first place may get additional pleasure with the idea that additionally they are "getting away with it". Thus, this bill could have the opposite effect of its intent. On the other hand, Mr. Wilson agreed this law could prevent "borderline" individuals from interrupting emergency calls.

Mr. Chaney pointed out that this bill would not involve the monitoring of all 40 CB channels, just the emergency channel 9. He added that it was his opinion that AB 253 would have a beneficial effect, in that those individuals who habitually do this type of thing would now be on notice that they will be pursued and, if caught, punished. Mr. Wilson said that recognition of channel 9 as a state-wide and nationwide emergency channel by the state government would be helpful. He just hopes the state isn't biting off a chunk of enforcement and pursuit too large to handle.

In reply to Mr. Stewart it was noted that a review of the number of arrests and convictions which Texas and California have successfully prosecuted under their laws might be useful in assessing AB 253.

Chairman Stewart proceeded to close the public hearings on this bill and went on to appoint a subcommittee to further study the matter: Mr. Thompson, Chairman; Mr. Chaney and Mr. Malone.

AB 254: Allows the appointment of artificial persons as court reporters.

Mr. Rich Molezzo testified the purpose of this bill is to allow court reporters to conform actual practice which has been going on for years with the statutes. Mr. Molezzo, himself a court reporter, pointed out that not only will this action not cost the state any money, it might save money over the long run.

Mr. Sader went on to explain that the genesis of this problem is as follows: at the present time the statutes require that a certain real person be appointed as a court reporter by the judge. For practical purposes, however, these individuals often head a firm which actually supplies the court reporters; thus, the person functioning as the court reporter is often not the actual person named by the judge, but an employee of that individual. Technically, this is in violation of the

current statute. AB 254 is an attempt to update the statute to allow this practice. It was further noted that almost every court, in practice, allows this substitution at present, and that this procedure has never been questioned, although it could be.

AB 255: Reduces period required for sale of goods in storage to satisfy liens.

Mr. Keith Lee, an attorney from Reno, testified in favor of this bill. Mr. Lee said he was present on behalf of two of his clients, who combined own approximately 340 mini warehouses. Mr. Lee explained that under the current law the mini warehouse person may sell any items left in the mini warehouse after a delinquency; however, first he must wait 6 months after the first delinquency before he can advertise them for sale, and then go ahead with a public auction and sell them. Thus, in actuality, it is closer to a nine month minimum before the goods are actually sold.

Mr. Lee pointed out that it is not so much the profit from the auction which is of concern here, but the fact that storage space must be tied up for several months prior to the sale. The auction of the goods seldom brings in much, if any profit. However, the loss of income from inability to rent the storage space and/or the cost of moving the goods and tying up other, less costly storage space, is of prime concern.

Mr. Lee noted that NRS 108.440, 108.450 and 108.460 were all adopted in 1909 by the Legislature. He added that this bill simply brings the lien provisions for mini warehouses into line with the uniform commercial code (NRS 104.721), which is the "big-boy" warehouseman's lien. The latter code was adopted in 1965. Mr. Lee went on to opine that back in 1909 it was probably very reasonable to require a six month lapse of time prior to any sale; however, with modern communication methods, etc., this is no longer necessary.

Mr. Malone questioned if AB 255 would impact upon any other laws; e.g., the impounding of household effects by landlords. During the ensuing discussion it was determined this would not affect other laws.

It was explained that AB 255 requires the following procedure: following delinquency the landlord must give the tenant a 10 day notice of this delinquency; after the 10 days expire, if there is still no payment, then a notice of sale at public auction must be published once a week for two weeks in a newspaper of general circulation in the county where the warehouses are located; finally, the auction cannot be held prior to 15 days after the date of first publication.

Mr. Beyer questioned the wording on page 2, line 9: "The sale must take place at least 15 days after..." He wondered if this

meant the auction had to take place within 15 days or whether it meant no sooner than 15 days. It was finally agreed the latter was the intent.

Mr. Stewart said he felt there should be a provision in this bill to allow the tenant to pay the amount due at any time prior to the sale, to include the additional expenses to the landlord for the notices, etc. Mr. Lee said he had no problem with this addition; the Chairman asked him to draw up an amendment to this effect and submit it to the Committee.

AB 277: Specifically includes public defender as "public officer" to limit his liability.

First to testify on this bill was Mr. Gregory Damm, State Public Defender. He noted that this bill simply clarifies that Public Defenders are public officers and are therefore eligible for representation by the Attorney General's Office if and when sued. This bill also limits the liability of Public Defenders to that of other public officers.

Mr. Damm explained that he himself has been sued twice in Federal Court and basically because of this the Public Defender's Office requested an opinion from the Attorney General's Office, which was issued on April 24, 1980--opinion 80-13--which states that the Public Defender is a public officer. Thus, AB 277 simply clarifies the conclusion reached by the Attorney General.

Mr. Stewart noted that he had reviewed the Attorney General's opinion, and that while he concludes Public Defenders are state officers, there are cases in other jurisdictions which cause him concern as to whether or not the Attorney General's finding will be upheld in court. Thus the need for AB 277.

It was explained to Ms. Ham that this bill permits a person to sue a public officer, but limits the liability of this officer to \$50,000. It was further noted that attorneys in private practice appointed to act as Public Defender in some cases are not considered to be public officers; additionally it was pointed out that these private attorneys usually have malpractice insurance, but in those cases where they don't have this insurance it should be spelled out in the agreement with the private attorney that he is not a public officer.

Next to testify was Mr. Bill Curran, Clark County District Attorney's Office. He noted that both he and his office, as well as Mr. Morgan Harris of the Public Defender's Office, support AB 277.

Mr. Price moved DO PASS AB 277, seconded by Mr. Thompson, and passed unanimously.

SB 30: Extends power of state gaming control board to examine enterprises related to gaming.

Chairman Stewart noted he had received the information from the attorneys at the Gaming Control Board which he had requested concerning the constitutionality of this bill. They indicated that there are problems with this bill, and that it would require almost a new bill to remedy this situation.

Mr. Price moved INDEFINITELY POSTPONE SB 30, seconded by Ms. Foley, and passed unanimously.

AB 254: Allows the appointment of artificial persons as court reporters.

Mrs. Cafferata moved DO PASS AB 254, seconded by Mr. Beyer, and passed unanimously.

As there was no further business the meeting adjourned at 9:50 a.m.

Respectfully submitted,

Pamela B. Sleeper

Pamela B. Sleeper
Assembly Attache

ASSEMBLY JUDICIARY COMMITTEE

GUEST LIST

DATE: Friday, 27 March 1981

PLEASE PRINT YOUR NAME	PLEASE PRINT WHO YOU REPRESENT	I WISH TO SPEAK		
		FOR	AGAINST	BILL NO.
J. GREGORY DAMM	STATE PUBLIC DEFENDER	X		AB 277
✓ Bryce Wilson	Alma Rosa TARA SNABS		X	AB 253
KEITH LEE	RIBEIRO BUILDERS	X		AB 255
✓ Rich Molezzo	SELF	X		AB 254
✓ Ed Martyn	REACT	X		AB 253
✓ Joe Sathcarl	city of Nye Las Vegas			
Bill Curran	Clark County D.A. office	✓		AB 277

**61st NEVADA LEGISLATURE
ASSEMBLY JUDICIARY COMMITTEE
LEGISLATION ACTION**

DATE: Friday, 27 March 1981
 SUBJECT: AB 277: Specifically includes public defender as
 "public officer" to limit his liability.

MOTION:

DO PASS XX AMEND _____ INDEFINITELY POSTPONE _____
 RECONSIDER _____

MOVED BY: MR. PRICE SECONDED BY: MR. THOMPSON

AMENDMENT:

MOVED BY: _____ SECONDED BY: _____

AMENDMENT:

MOVED BY: _____ SECONDED BY: _____

VOTE:	MOTION		AMEND		AMEND	
	YES	NO	YES	NO	YES	NO
Thompson	<u>X</u>	---	---	---	---	---
Foley	<u>X</u>	---	---	---	---	---
Beyer	<u>X</u>	---	---	---	---	---
Price	<u>X</u>	---	---	---	---	---
Sader	<u>X</u>	---	---	---	---	---
Stewart	<u>X</u>	---	---	---	---	---
Chaney	<u>X</u>	---	---	---	---	---
Malone	<u>X</u>	---	---	---	---	---
Cafferata	<u>X</u>	---	---	---	---	---
Ham	<u>X</u>	---	---	---	---	---
Banner	<u>X</u>	---	---	---	---	---
TALLY:	<u>11</u>	<u>0</u>	---	---	---	---

ORIGINAL MOTION: Passed XX Defeated _____ Withdrawn _____

AMENDED & PASSED _____ AMENDED & DEFEATED _____
 AMENDED & PASSED _____ AMENDED & DEFEATED _____

ATTACHED TO MINUTES OF Assembly Judiciary Committee
 Friday, 27 March 1981

61st NEVADA LEGISLATURE
ASSEMBLY JUDICIARY COMMITTEE
LEGISLATION ACTION

DATE: Friday, 27 March 1981
 SUBJECT: SB 30: Extends power of state gaming control board
 to examine enterprises related to gaming.

MOTION:

DO PASS _____ AMEND _____ INDEFINITELY POSTPONE XX
 RECONSIDER _____

MOVED BY: MR. PRICE SECONDED BY: MS. FOLEY

AMENDMENT:

MOVED BY: _____ SECONDED BY: _____

AMENDMENT:

MOVED BY: _____ SECONDED BY: _____

VOTE:	MOTION		AMEND		AMEND	
	YES	NO	YES	NO	YES	NO
Thompson	<u>X</u>	—	—	—	—	—
Foley	<u>X</u>	—	—	—	—	—
Beyer	<u>X</u>	—	—	—	—	—
Price	<u>X</u>	—	—	—	—	—
Sader	<u>X</u>	—	—	—	—	—
Stewart	<u>X</u>	—	—	—	—	—
Chaney	<u>X</u>	—	—	—	—	—
Malone	<u>X</u>	—	—	—	—	—
Cafferata	<u>X</u>	—	—	—	—	—
Ham	<u>X</u>	—	—	—	—	—
Banner	<u>X</u>	—	—	—	—	—
TALLY:	<u>11</u>	<u>0</u>	—	—	—	—

ORIGINAL MOTION: Passed xx Defeated _____ Withdrawn _____
 AMENDED & PASSED _____ AMENDED & DEFEATED _____
 AMENDED & PASSED _____ AMENDED & DEFEATED _____

ATTACHED TO MINUTES OF Assembly Judiciary Committee
Friday, 27 March 1981

61st NEVADA LEGISLATURE
ASSEMBLY JUDICIARY COMMITTEE
LEGISLATION ACTION

DATE: Friday, 27 March 1981
SUBJECT: AB 254: Allows the appointment of artificial persons as court reporters.

MOTION:
DO PASS XX AMEND _____ INDEFINITELY POSTPONE _____
RECONSIDER _____
MOVED BY: MRS. CAFFERATA SECONDED BY: MR. BEYER

AMENDMENT:

MOVED BY: _____ SECONDED BY: _____
AMENDMENT:

MOVED BY: _____ SECONDED BY: _____

VOTE:	MOTION		AMEND		AMEND	
	<u>YES</u>	<u>NO</u>	<u>YES</u>	<u>NO</u>	<u>YES</u>	<u>NO</u>
Thompson	<u>X</u>	—	—	—	—	—
Foley	<u>X</u>	—	—	—	—	—
Beyer	<u>X</u>	—	—	—	—	—
Price	<u>X</u>	—	—	—	—	—
Sader	<u>X</u>	—	—	—	—	—
Stewart	<u>X</u>	—	—	—	—	—
Chaney	<u>X</u>	—	—	—	—	—
Malone	<u>X</u>	—	—	—	—	—
Cafferata	<u>X</u>	—	—	—	—	—
Ham	<u>X</u>	—	—	—	—	—
Banner	<u>X</u>	—	—	—	—	—
TALLY:	<u>11</u>	<u>0</u>	—	—	—	—

ORIGINAL MOTION: Passed XX Defeated _____ Withdrawn _____
AMENDED & PASSED _____ AMENDED & DEFEATED _____
AMENDED & PASSED _____ AMENDED & DEFEATED _____

ATTACHED TO MINUTES OF Assembly Judiciary Committee
Friday, 27 March 1981

break channel 9

texas tough with channel 9 violators

By Clayton Tompkins

A little-noticed law passed by the Texas Legislature in May sets criminal penalties for anyone who deliberately or negligently interferes with an emergency CB radio call. If the interference results in a serious injury or loss of property, the penalty could be as much as 10 years in prison and a fine up to \$ 5,000.

The law, House Bill 179, was introduced by Rep. Sam Hudson (D-Dallas). It passed the House, unopposed, on May 24 and was approved by a unanimous vote in the Senate three days later. Governor Clements signed it into law two weeks after the Session ended.

Hudson had introduced a similar, but broader, bill during the 1977 season, but it failed to reach a vote in the House. This time, the much simpler bill passed through both houses during the frantic closing days of the Session.

The main portion of the new law reads as follows:

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS: SECTION 1. Chapter 42, Penal Code, as amended, is amended by adding Section 42.13 to read as follows:

Sec. 42.13 INTERFERENCE WITH EMERGENCY COMMUNICATION.

(a) A person commits an offense if the person intentionally, knowingly, recklessly, or with criminal negligence interrupts, disrupts, impedes, or otherwise interferes with the transmission of a

communication over a citizens band radio channel, the purpose of which communication is to inform or inquire about an emergency.

(b) In this section, "emergency" means a condition or circumstance in which an individual is or is reasonably believed by the person transmitting the communication to be in imminent danger of serious bodily injury or in which property is or is reasonably believed by the person transmitting the communication to be in imminent danger of damage or destruction.

(c) An offense under this section is a Class B misdemeanor unless, as a result of the commission of the offense, serious bodily injury or property loss in excess of \$ 1,000 results, in which event the offense is a felony of the third degree.

A Class B misdemeanor carries a penalty of up to 180 days (six months) in jail or a \$ 1,000 fine, or both. A third-degree felony can mean a prison sentence of up to 10 years or a fine up to \$ 5,000, or both.

The law took effect immediately upon being signed by the Governor.

For all citizen band radio operators and volunteer emergency monitors on all channels, the main significance of the law, and some of the implications, are as follows:

1. STATE law enforcement officials now can pursue flagrant violators. It is not necessary to wait

for the FCC to respond to complaints six months too late. Any police department, or constable can take a misdemeanor complaint; any district attorney can prosecute either a misdemeanor or felony charge.

2. Realistically, law enforcement officials are not likely to go out of their way to enforce this law. It will be up to the complainant to gather the evidence necessary to obtain a conviction. In some cases, unless there has been a very flagrant and serious violation, it may prove difficult to persuade a district attorney to take a case to court, at least until someone else has done so and the proper court procedures have been established.

3. In order to get a misdemeanor conviction, three things must be proven:

a. Someone deliberately or recklessly acted in a particular way that caused interference.

B. An emergency communication was going on at the time the interference occurred.

C. A particular, named person was responsible for causing the interference.

4. In order to get a felony conviction, there also must be proof that someone suffered serious bodily injury or loss of property, and that this loss or injury probably would not have happened if there had not been interference.

5. Most district attorneys and other law enforcement officials are not sufficiently familiar with citizen band radio to understand the nature

of its operation. In particular, these officials may not recognize the seriousness of this type of violation. Frivolous, Trivial and Vague complaints will not help. The more concrete, specific and provable information you can provide to the police, sheriff, or the district attorney, the more cooperation they will give, and the more likely that a conviction will result.

It is reasonable to assume that a large percentage of interference is due to thoughtlessness, and a polite reminder will bring immediate cooperation from this type of offender. It also is to be noted, that interference on or from any CB channel that disrupts or impedes the course of emergency communications, constitutes a violation. If you are receiving interference and you are the person responsible of the fact, and they refuse to standby, further interference would be **Knowingly and Recklessly and Intentionally.**

For information and clarification, terms of violation interference as contained in the law are as follows:

- (a) intentionally (that is, the person specifically intends to interfere)
- (b) knowingly (that is, the person knows that he or she is interfering, but does nothing to stop it)
- (c) recklessly (that is, the person knows that his or her actions are likely to cause interference, but does nothing to stop it)
- (d) criminally negligent (that is, the person acts without regard for whether his or her actions might cause interference)

The purpose of Citizens Band radio — is to allow short distance, low cost, two-way communications to persons who need to communicate with each other. As defined in Federal Communication Register, Part 95, titled "Rules and Regulations", all persons who use this type communications should be aware of the restrictions and limitations imposed by the above cited document.

IGNORANCE OF THE LAW EXCUSES NO ONE!!

near program seeks anti-linear ideas

After struggling with the problem for over six months, the National Highway Traffic Safety Administration has turned to the public for suggestions of techniques that could be used by channel 9 NEAR monitors to recognize and record symptoms of illegal use of RF output amplifiers ("linear ears") on channels adjacent to the National Emergency Channel.

According to Leo R. Schwartz, chief of the Emergency Medical Services Branch of NHTSA, "The enforcement of radio communications rules is a process that requires special equipment and technical skills to detect, locate, gather evidence and prosecute violators. This enforcement operation is, in our opinion, beyond the capability and outside the scope of operation of the citizen volunteer monitor. The primary objective of volunteer Channel 9 monitors is to listen, receive pertinent facts regarding an emergency, and relay them to the appropriate emergency response agency."

"If this function is being obstructed by the use of output signal amplifiers," Schwartz said, "it would certainly be useful if the Channel 9 monitor could detect the existence of the condition. If there was some way for the monitor to detect specific tell-tale signs of il-

legal amplifier usage, the instances of such usage could be documented and used as a basis for demanding FCC action."

The emergency medical services chief acknowledges that "While CB radio is not the ideal solution to motorist access to the emergency response networks, it offers a valuable existing resource for highway safety. Furthermore, the NEAR Program, which has provisions for organizational interfaces between public safety agencies and volunteer CB monitor organizations on a statewide scale, can be the foundation for a future highway safety communications system. We don't want to have the present program or the future prospects compromised.

According to Schwartz, NHTSA appreciates public concerns about interference on Channel 9, and would be interested in learning any suggested techniques that could be used by monitors to pinpoint those using linear amplifiers to disrupt life-and-death communications. Suggestions should be addressed to: Mr. Leo R. Schwartz, Chief, Emergency Medical Services Branch, National Highway Traffic Safety Administration, U.S. Department of Transportation, Washington, D.C. 20590.



The FCC has no smiles for linear violators

'Good Buddies In LV Among U.S.'s Rudest'

By SEAN McVEY
SUN Staff Writer

Las Vegas citizens band operators are ruder and use more offensive language than any of their counterparts in the rest of the country, a Federal Communications Commission spokesman said Sunday.

William H. Grigsby, FCC special enforcement supervisor for the Western United States, said Sunday more than 60 Las Vegas were fined a total of \$7,000 over the weekend for illegal use of their CB equipment.

It's his opinion local CBers use filthier language and interfere with other CB transmissions more than any other part of the nation.

"Compared with where I came from, there is more obscene language and interfering with channels being done here in Las Vegas," he said.

Grigsby said the crackdown and fines came after the department received numerous complaints of television and CB reception problems caused by CBers using illegal equipment.

Grigsby said he doesn't know the exact number of complaints his department received.

"But I had a thick file," he said.

The FCC investigation team, using sophisticated radio detection equipment, tracked down the offenders using over-powered equipment, transmitting out of the assigned 40 CB channels, which interferes with the radio bands assigned to the government, industry and military, transmitting without proper identification and transmitting outside of the assigned radio regions.

Grigsby said it has been a couple of years since the FCC last cracked down on Las Vegas using illegal equipment.

The fines ran from \$50 — for failure to identify transmissions by assigned

code — to \$100 for use of a frequency unauthorized for CBers.

Grigsby said the highest fine levied over the weekend was \$250 for one person who used a too-high antenna, failed to identify himself, and committed various other violations.

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Part 95
Subpart E

TECHNICAL REGULATIONS



Personal
Radio Services

April 1977

EXHIBIT C

Assembly Judiciary Committee
Friday, 27 March 1981

931

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SUBPART E

TECHNICAL REGULATIONS

GENERAL

§95.601 Basis and purpose.

These rules are designed to provide the technical standards necessary for proper operation and maintenance of units used in the Personal Radio Services. They also provide for procedures whereby manufacturers of radio equipment to be used or operated in the Personal Radio Services may obtain type acceptance of such equipment as may be appropriate.

§95.603 Definitions.

For the purpose of this part, the following definitions shall be applicable. For other definitions, refer to Part 2 of this chapter.

(a) Definitions of stations.

Base station. A land station in the land mobile service carrying on a service with land mobile stations.

General Mobile Radio Service station. A station in the Personal Radio Services licensed to be operated on an assigned frequency in the 460-470 MHz band with a transmitter output power of not more than 50 watts.

Radio Control (R/C) Service station. A station in the Personal Radio Services licensed to be operated on an authorized frequency in the 26.96-27.23 MHz band, or on the frequency 27.255 MHz, for the control of remote objects or devices by radio, or for the remote actuation of devices which are used solely as a means of attracting attention, or on an authorized frequency in the 72-76 MHz band for the radio control of models used for hobby purposes only.

Citizens Band (CB) Radio Service station. A station in the Personal Radio Services licensed to be operated for radiotelephony only, on an authorized frequency in the 26.96-27.41 MHz band.

Base station. A station in the land mobile service not intended for operation while in motion.

Fixed station. A station intended to be operated between specified fixed points.

Mobile station. A station intended to be operated between mobile and land stations or between mobile stations. A mobile station is operated while in motion or during halts at unspecified points.

(b) Miscellaneous definitions.

Antenna structure. The term "antenna structure" includes the radiating system, its supporting structures and any appurtenances mounted thereon.

Assigned frequency. The frequency appearing on a station authorization from which the carrier frequency may deviate by an amount not to exceed that permitted by the frequency tolerance.

Authorized bandwidth. The maximum permissible bandwidth for the

particular emission used. This shall be the occupied bandwidth or necessary bandwidth, whichever is greater.

Carrier power. The average power at the output terminals of a transmitter (other than a transmitter having a suppressed, reduced or controlled carrier) during one radio frequency cycle under conditions of no modulation.

External radio frequency power amplifiers. As defined in §2.815(a) and as used in this part, an external radio frequency power amplifier is any device which (1) when used in conjunction with a radio transmitter as a signal source is capable of amplification of that signal, and (2) is not an integral part of a radio transmitter as manufactured.

Harmful interference. Any emission, radiation or induction which endangers the functioning of a radio-navigation service or other safety service or seriously degrades, obstructs or repeatedly interrupts a radio-communication service operating in accordance with applicable laws, treaties, and regulations.

Man-made structure. Any construction other than a tower, mast or pole.

Mean power. The power at the output terminals of a transmitter during normal operation, averaged over a time sufficiently long compared with the period of the lowest frequency encountered in the modulation. A time of $\frac{1}{10}$ second during which the mean power is greatest, will be selected normally.

Necessary bandwidth. For a given class of emission, the minimum value of the occupied bandwidth sufficient to ensure the transmission of information at the rate and with the quality required for the system employed, under specified conditions. Emissions useful for the good functioning of the receiving equipment, as for example, the emission corresponding to the carrier of reduced carrier systems, shall be included in the necessary bandwidth.

Occupied bandwidth. The frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5% of the total mean power radiated by a given emission.

Omnidirectional antenna. An antenna designed so the maximum radiation in any horizontal direction is within 3 dB of the minimum radiation in any horizontal direction.

Peak envelope power. The average power at the output terminals of a transmitter during one radio frequency cycle at the highest crest of the modulation envelope, taken under conditions of normal operation.

Remote control. The term "remote control" when applied to the use or operation of a Personal Radio Services station means control of the transmitting equipment of that station from any place other than the location of the transmitting equipment, except that direct mechanical control or direct electrical control by wired connections of transmitting equipment from some other point on the same premises, craft or vehicle shall not be considered to be remote control.

Single sideband emission. An emission in which only one sideband is transmitted. The carrier, or a portion thereof, also may be present in the emission.

Double sideband emission. An emission in which both upper and lower sidebands resulting from the modulation of a particular carrier are transmitted. The carrier, or a portion thereof, also may be present in the emission.

Station authorization. Any construction permit, license, or special temporary authorization issued by the Commission.

FREQUENCIES, POWER AND EMISSION

§95.611 Availability of frequencies.

(a) Frequencies available for assignment in the General Mobile Radio Service:

Base and Mobile	Mobile Only	Base and Mobile	Mobile Only
(MHz)	(MHz)	(MHz)	(MHz)
462.550	467.550	462.650	467.650
462.575	467.575	462.675	467.675
462.600	467.600	462.700	467.700
462.625	467.625	462.725	467.725

(b) Fixed stations in the General Mobile Radio Service.

(1) Such fixed stations may be eligible for an assigned frequency under the following conditions:

(i) Fixed stations which are used to control base stations of a system may be assigned the frequency assigned to the mobile units associated with the base station. Such fixed stations shall comply with the following requirements if they are located within 75 miles of the center of urbanized areas of 200,000 or more population.

(a) If the station is used to control one or more base stations located within 45 degrees of azimuth, a directional antenna having a front-to-back ratio of at least 15 dB shall be used at the fixed station. For other situations where such a directional antenna cannot be used, a cardioid, bidirectional or omnidirectional antenna may be employed. Consistent with reasonable design, the antenna used must, in each case, produce a radiation pattern that provides only the coverage necessary to permit satisfactory control of each base station and limit radiation in other directions to the extent feasible.

(b) The strength of the signal of a fixed station controlling a single base station may not exceed the signal strength produced at the antenna terminal of the base receiver by a unit of the associated mobile station, by more than 6 dB. When the station controls more than one base station, the 6 dB control-to-mobile signal difference need be verified at only one of the base station sites. The measurement of the signal strength of the mobile unit must be made when such unit is transmitting from the control station location or, if that is not practical, from a location within one-fourth mile of the control station site.

(c) Each application for a control station to be authorized under the provisions of this paragraph shall be accompanied by a statement certifying that the output power of the proposed station transmitter will be adjusted to comply with the foregoing signal level limitation. Records of the measurements used to determine the signal ratio shall be kept with the station records and shall be made available for inspection by Commission personnel upon request.

(d) Urbanized areas of 200,000 or more population are defined in the U.S. Census of Population, 1960, Vol. 1, table 23, page 50. The centers of urbanized areas are determined from the Appendix, page 226 of the U.S. Commerce publication "Air Line Distance Between Cities in the United States."

(ii) Fixed stations, other than those used to control base stations, which are located 75 or more miles from the center of an urbanized area of 200,000 or more population. The centers of urbanized areas of 200,000 or

more popular are listed on page 226 of the Appendix to the U.S. Department of Commerce publication "Air Line Distance Between Cities in the United States." When the fixed station is located 100 miles or less from the center of such an urbanized area, the power output may not exceed 15 watts. All fixed systems are limited to a maximum of two frequencies and must employ directional antennas with a front-to-back ratio of at least 15 dB. For two-frequency systems, separation between transmit-receive frequencies is 5 MHz.

(2) Such fixed stations authorized prior to March 18, 1968, located 100 or more miles from the center of any urbanized area of 200,000 or more population, authorized to operate on frequencies other than those specified above, will not have to change frequencies provided no interference is caused to the operation of stations in the land mobile service.

(c) R/C stations.

(1) Frequencies authorized for use at R/C stations.

(i) Control of remote objects or devices by radio, or remote actuation of devices which are used solely as a means of attracting attention.

MHz: 26.995; 27.045; 27.095; 27.145; 27.195; 27.255.¹

(ii) Radio remote control of any model used for hobby purposes.

MHz: 72.16; 72.32; 72.96.

(iii) Radio remote control of aircraft models only.

MHz: 72.08; 72.24; 72.40; 75.64.

(2) Special conditions.

(i) Such stations may employ only amplitude tone modulation or on-off keying of the unmodulated carrier.

(ii) Such stations operate on a shared basis with other stations in the Personal Radio Services on the frequencies authorized above.

(iii) The frequencies available for the control of remote objects or devices or for the remote actuation of devices which are used solely as a means of attracting attention are not afforded any protection from interference caused by the operation of industrial, scientific, or medical devices within the 26.96-27.28 MHz band.

(iv) The frequencies available for the radio remote control of models used for hobby purposes are subject to the condition that interference will not be caused to the remote control of industrial equipment operating on the same or adjacent frequencies or to the reception of television transmissions on Channels 4 and 5. These frequencies are not afforded any protection from interference due to the operation of fixed and mobile stations in other services assigned to the same or adjacent frequencies.

(d) CB stations.

(1) Frequencies authorized for use at CB stations.

(i) The following frequencies may be used for communications between CB stations:

MHz: 26.965; 26.975; 26.985; 27.005; 27.015; 27.025; 27.035; 27.055; 27.075; 27.085; 27.105; 27.115; 27.125; 27.135; 27.155; 27.165; 27.175; 27.185; 27.205; 27.215; 27.225; 27.235; 27.245; 27.255; 27.265; 27.275; 27.285; 27.295; 27.305; 27.315; 27.325; 27.335; 27.345; 27.355; 27.365; 27.375; 27.385; 27.395; 27.405.

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¹This frequency is shared with stations in other services.

(2) Special conditions.

(i) The frequencies listed above are available for use with radiotelephony (voice) transmissions only.

(ii) These frequencies are available on a shared basis with other stations in the Personal Radio Services.

(iii) These frequencies are subject to no protection from interference due to the operation of industrial, scientific, or medical devices within the 26.96-27.28 MHz band.

(iv) The frequency 27.065 MHz shall be used solely for emergency communications, which are defined as:

(a) Communications involving the immediate safety of life of individuals or the immediate protection of property, or

(b) Communications necessary to render assistance to a motorist.

§95.613 Transmitter power.

(a) Transmitter power is the power at the transmitter output terminals and delivered to the antenna, antenna transmission line, or any other impedance-matched, radio frequency load.

(1) For single sideband transmitters and other transmitters employing a reduced carrier, a suppressed carrier or a controlled carrier, used at CB stations, transmitter power is the peak envelope power.

(2) For all transmitters other than those covered by paragraph (a)(1) of this section, the transmitter power is the carrier power.

(b) The transmitter power of a station shall not exceed the following values under any condition of modulation or other circumstances.

		Transmitter power in watts
Class of station:		
General mobile radio service		50
R/C	27.255 MHz	25
	26.995 to 27.195 MHz	4
	72 to 76 MHz75
CB	Carrier (where applicable)	4
	Peak envelope power (where applicable)	12

§95.615 Frequency tolerance.

(a) Except as provided in paragraphs (b) and (c) of this section, the carrier frequency of a transmitter in this service shall be maintained within the following percentage of the authorized frequency:

Class of station	Frequency tolerance	
	Fixed and base	Mobile
General Mobile Radio Service	0.00025	0.0005
R/C005
CB005

(b) Transmitters used at R/C stations operating on authorized frequencies between 26.99 and 27.26 MHz with 2.5 watts or less mean output power, which are used solely for the control of remote objects or devices

by radio (other than devices used solely as a means of attracting attention), are permitted a frequency tolerance of 0.01 percent.

(c) General Mobile Radio Service stations operated at a fixed location used to control base stations, through use of a mobile only frequency, may operate with a frequency tolerance of 0.0005 percent.

§ 95.617 Emission limitations.

(a) Each authorization issued to a General Mobile radio station will show, as a prefix to the classification of the authorized emission, a figure specifying the maximum bandwidth to be occupied by the emission.

(b) The authorized bandwidth of the emission of any transmitter employing amplitude modulation shall be 8 kHz for double sideband and 4 kHz for single sideband. The authorized bandwidth of the emission of any transmitter employing frequency or phase modulation (Class F2 or F3) shall be 20 kHz. The use of F2 and F3 emissions in the frequency band 26.96–27.41 MHz is not authorized.

(c) The mean power of emissions shall be attenuated below the mean power of the transmitter in accordance with the following schedule:

(1) When using emissions other than single sideband:

(i) On any frequency removed from the center of the authorized bandwidth by more than 50 percent up to and including 100 percent of the authorized bandwidth: at least 25 decibels;

(ii) On any frequency removed from the center of the authorized bandwidth by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 decibels;

(2) When using single sideband emissions:

(i) On any frequency removed from the center of the authorized bandwidth by more than 50 percent up to and including 150 percent of the authorized bandwidth: at least 25 decibels;

(ii) On any frequency removed from the center of the authorized bandwidth by more than 150 percent up to and including 250 percent of the authorized bandwidth: at least 35 decibels;

(3) On any frequency removed from the center of the authorized bandwidth by more than 250 percent of the authorized bandwidth: at least $43 + 10 \log_{10}$ (mean power in watts) decibels, for CB transmitters type accepted before September 10, 1976 and all General Mobile Radio Service transmitters.

(4) On any frequency removed from the center of the authorized bandwidth by more than 250 percent of the authorized bandwidth up to a frequency of twice the fundamental frequency: at least $53 + 10 \log_{10}$ (mean power in watts) decibels, for CB transmitters type accepted after September 10, 1976.

(5) On any frequency twice or greater than twice the fundamental frequency: at least 60 decibels (mean power in watts) for CB transmitters type accepted after September 10, 1976.

NOTE.—The requirements of paragraph (c) must be met both with and without connection of all attachments acceptable for use with such transmitters. External speakers, microphones, power cords, and antennas are among the devices included in this requirement. Additionally, if it is shown that a licensee causes interference to television reception because of insufficient harmonic attenuation, he may be required to insert a low-pass filter between the transmitter RF output terminal and the antenna feedline.

(d) When an unauthorized emission results in harmful interference, the

Commission may, in its discretion, require appropriate technical changes in equipment to alleviate the interference.

§ 95.619 Modulation requirements.

(a) When double sideband, amplitude modulation is used for telephony, the modulation percentage shall be sufficient to provide efficient communication and shall not exceed 100 percent.

(b) Each transmitter for use in CB stations, other than single sideband, suppressed carrier, or controlled carrier, for which type acceptance is requested after May 24, 1974, having more than 2.5 watts maximum output power shall be equipped with a device which automatically prevents modulation in excess of 100 percent on positive and negative peaks.

(c) The maximum audio frequency required for satisfactory radiotelephone intelligibility for use in this service is considered to be 3000 Hz.

(d) Transmitters for use at General Mobile Radio Service stations shall be provided with a device which automatically will prevent greater than normal audio level from causing modulation in excess of that specified in this subpart; *Provided, however,* That the requirements of this paragraph shall not apply to transmitters authorized at mobile stations and having an output power of 2.5 watts or less.

(e) Each transmitter of a General Mobile Radio Service station which is equipped with a modulation limiter in accordance with the provisions of paragraph (d) of this section shall also be equipped with an audio low-pass filter. This audio low-pass filter shall be installed between the modulation limiter and the modulated stage and, at audio frequencies between 3 kHz and 20 kHz, shall have an attenuation greater than the attenuation at 1 kHz by at least $60 \log_{10} (f/3)$ decibels where "f" is the audio frequency in kHz. At audio frequencies above 20 kHz, the attenuation shall be at least 50 decibels greater than the attenuation at 1 kHz.

(f) Simultaneous amplitude modulation and frequency or phase modulation of a transmitter is not authorized.

(g) The maximum frequency deviation of frequency modulated transmitters used at General Mobile Radio stations shall not exceed ± 5 kHz.

§ 95.621 Compliance with technical requirements.

(a) Upon receipt of notification from the Commission of a deviation from the technical requirements of the rules in this part, the radiations of the transmitter involved shall be suspended immediately, except for necessary tests and adjustments, and shall not be resumed until such deviation has been corrected.

(b) When any station licensee receives a notice of violation indicating that the station has been operated contrary to any of the provisions contained in Subpart B of this part, or where it otherwise appears that operation of a station in this service may not be in accordance with applicable technical standards, the Commission may require the licensee to conduct such tests as may be necessary to determine whether the equipment is capable of meeting these standards and to make such adjustments as may be necessary to assure compliance therewith. A licensee who is notified that he is required to conduct such tests and/or make adjustments must, within the time limit specified in the notice, report to the Commission the results thereof.

(c) All tests and adjustments which may be required in accordance with

paragraph of this section shall be made by, or under the immediate supervision of a person holding a first- or second-class commercial operator license, either radiotelephone or radiotelegraph as may be appropriate for the type of emission employed. In each case, the report which is submitted to the Commission shall be signed by the licensed commercial operator. Such report shall describe the results of the tests and adjustments, the test equipment and procedures used, and shall state the type, class, and serial number of the operator's license. A copy of this report shall also be kept with the station records.

PROHIBITED EQUIPMENT

§ 95.631 External radio frequency power amplifiers prohibited.

No external radio frequency power amplifier shall be used or attached, by connection, coupling attachment or in any other way at any CB station.

NOTE.—An external radio frequency power amplifier at a CB station will be presumed to have been used where it is in the operator's possession or on his premises and there is extrinsic evidence of any operation of such CB station in excess of power limitations provided under this rule part unless the operator of such equipment holds a station license in another radio service under which license the use of the said amplifier at its maximum rated output power is permitted.

TYPE ACCEPTANCE AND CERTIFICATION

§ 95.641 Acceptability of transmitters for licensing.

Transmitters type approved or type accepted for use under this part are included in the Commission's Radio Equipment List. Copies of this list are available for public reference at the Commission's Washington, D.C. offices and field offices. The requirements for transmitters which may be operated under a license in this service are set forth in the following paragraphs.

(a) General Mobile Radio Service stations: All transmitters shall be type accepted.

(b) R/C stations:

(1) Transmitters operated in the band 72-76 MHz shall be type accepted.

(2) All transmitters operated in the band 26.99-27.26 MHz shall be type approved, type accepted or crystal controlled.

(c) CB stations:

(1) All transmitters first licensed, or marketed as specified in § 2.805 of this chapter, prior to November 22, 1974, shall be type accepted or crystal controlled.

(2) All transmitters first licensed, or marketed as specified in § 2.803 of this chapter, on or after November 22, 1974, shall be type accepted.

(3) Effective November 23, 1978, all transmitters shall be type accepted.

(4) Effective January 1, 1977 transmitters which are equipped to operate on any frequency not included in § 95.611 may not be installed at or used by any CB station unless there is a station license or a photocopy thereof posted at the transmitter location which indicates that operation of the transmitter on such frequency has been authorized by the Commission.

(5) No CB transmitter type accepted pursuant to an application filed

prior to September 10, 1976 shall be manufactured on or after August 1, 1977.

(6) No CB transmitter type accepted pursuant to an application filed prior to September 10, 1976 shall be marketed on or after January 1, 1978.

NOTE.—A "transmitter" is defined to include any radio frequency (RF) power amplifier.

(d) With the exception of equipment type approved for use at a R/C station, all transmitting equipment authorized in this service shall be crystal controlled.

(e) No controls, switches or other functions which can cause operation in violation of the technical regulations of this part shall be accessible from the operating panel or exterior to the cabinet enclosing a transmitter authorized in this service.

§ 95.643 Procedure for type acceptance of equipment.

(a) Any manufacturer of a transmitter built for use in this service, except noncrystal controlled transmitters for use at R/C stations, may request type acceptance for such transmitter in accordance with the type acceptance requirements of this part, following the type acceptance procedure set forth in Part 2 of this chapter.

(b) Type acceptance for an individual transmitter may also be requested by an applicant for a station authorization by following the type acceptance procedures set forth in Part 2 of this chapter. Such transmitters, if accepted, will not normally be included on the Commission's "Radio Equipment List", but will be individually enumerated on the station authorization.

(c) Additional rules with respect to type acceptance are set forth in Part 2 of this chapter. These rules include information with respect to withdrawal of type acceptance, modification of type-accepted equipment, and limitations on the findings upon which type acceptance is based.

(d) Transmitters equipped with a frequency or frequencies not listed in § 95.611(d) will not be type accepted for use at CB stations unless the transmitter is also type accepted for use in the service in which the frequency is authorized, if type acceptance in that service is required.

§ 95.645 Additional requirements for type acceptance.

(a) All transmitters shall be crystal controlled.

(b) Except for transmitters type accepted for use at General Mobile Radio Service stations transmitters shall not include any provisions for increasing power to levels in excess of the pertinent limits specified in § 95.613.

(c) In addition to all other applicable technical requirements set forth in this part, transmitters for which type acceptance is requested for use at CB stations shall comply with the following:

(1) Single sideband transmitters and other transmitters employing reduced, suppressed or controlled carrier shall include a means for automatically preventing the transmitter power from exceeding either the maximum permissible peak envelope power or the rated peak envelope power of the transmitter, whichever is lower.

(2) Multi-frequency transmitters shall be capable of operation only on those frequencies authorized by § 95.611.

(3) All transmitter frequency determining circuitry (including crystals), other than the frequency selection mechanism, employed in CB station equipment shall be internal to the equipment and shall not be accessible from the exterior of the equipment cabinet or operating panel. Add-on devices, whether internal or external to the equipment, the function of which is to extend the frequency coverage capability of a CB unit beyond its original frequency coverage capability, shall not be sold, manufactured, or attached to any transmitter capable of operation on CB frequencies.

(4) Single sideband transmitters shall be capable of transmitting on the upper sideband. Capability for transmission also on the lower sideband is permissible.

(5) The total dissipation ratings, established by the manufacturer of the electron tubes or semiconductors which supply radio frequency power to the antenna terminals of the transmitter, shall not exceed 10 watts. For electron tubes, the rating shall be the Intermittent Commercial and Amateur Service (ICAS) plate dissipation value if established. For semiconductors, the rating shall be the collector or device dissipation value, whichever is greater, which may be temperature derated to not more than 50° C.

(d) Only the following external transmitter controls, connections or devices will normally be permitted in transmitters for which type acceptance is requested for use at CB stations. Approval of additional controls, connections or devices may be given after consideration of the functions to be performed by such additions.

(1) Primary power connection. (Circuitry or devices such as rectifiers, transformers, or inverters which provide the nominal rated transmitter primary supply voltage may be used without voiding the transmitter type acceptance.)

(2) Microphone connection.

(3) Radio frequency output power connection.

(4) Audio frequency power amplifier output connector and selector switch.

(5) On-off switch for primary power to transmitter. May be combined with receiver controls such as the receiver on-off switch and volume control.

(6) Upper-lower sideband selector; for single sideband transmitters only.

(7) Selector for choice of carrier level; for single sideband transmitters only. May be combined with sideband selector.

(8) Transmitting frequency selector switch.

(9) Transmit-receive switch.

(10) Meter(s) and selector switch for monitoring transmitter performance.

(11) Pilot lamp or meter to indicate the presence of radio frequency output power or that transmitter control circuits are activated to transmit.

(c) An instruction book for the user shall be furnished with each transmitter sold and one copy (a draft or preliminary copy is acceptable providing a final copy is furnished when completed) shall be forwarded to the Commission with each request for type acceptance or type approval. The book shall contain all information necessary for the proper installation and operation of the transmitter including:

(1) Instructions concerning all controls, adjustments and switches which may be operated or adjusted without causing violation of technical regulations of this part;

(2) Warnings concerning any adjustment which, according to the rules of this part, may be made only by, or under the immediate supervision of, a person holding a commercial first- or second-class radio operator license;

(3) Warnings concerning the replacement or substitution of crystals, tubes or other components which could cause violation of the technical regulations of this part and of the type acceptance or type approval requirements of Part 2 of this chapter;

(4) Warnings concerning licensing requirements and details concerning the application procedures for licensing.

(f) A CB Radio Service application form (FCC Form 505), a Temporary Permit, CB Radio Service (FCC Form 555-B), and a copy of Subpart D of Part 95 of the Commission's Rules and Regulations, each to be current at the time of packing of the transmitter, shall be furnished with each transmitter marketed after January 1, 1977.

(g) The serial number of each new CB unit marketed after January 1, 1977, shall be engraved on the unit's chassis.

§95.647 Submission of noncrystal controlled R/C station transmitters for type approval.

Type approval of noncrystal controlled transmitters for use at R/C stations in this service may be requested in accordance with the procedure specified in Part 2 of this chapter.

§95.649 Type approval of receiver-transmitter combinations.

Type approval will not be issued for transmitting equipment for operation under this part when such equipment is enclosed in the same cabinet, is constructed on the same chassis in whole or in part, or is identified with a common type or model number with a radio receiver, unless such receiver has been certificated to the Commission as complying with the requirements of Part 15 of this chapter.

§95.651 Minimum equipment specifications.

Transmitters submitted for type approval in this service shall be capable of meeting the technical specifications contained in this part, and in addition, shall comply with the following:

(a) Any basic instructions concerning the proper adjustment, use, or operation of the equipment that may be necessary shall be attached to the equipment in a suitable manner and in such positions as to be easily read by the operator.

(b) A durable nameplate shall be mounted on each transmitter showing the name of the manufacturer, the type or model designation, and providing suitable space for permanently displaying the transmitter serial number, FCC type approval number, and the class of station for which approved.

(c) The transmitter shall be designed, constructed, and adjusted by the manufacturer to operate on a frequency or frequencies available to the class of station for which type approval is sought. In designing the equipment, every reasonable precaution shall be taken to protect the user from high voltage shock and radio frequency burns. Connections to batteries (if used) shall be made in such a manner as to permit replacement by the user without causing improper operation of the transmitter.

Generally accepted modern engineering principles shall be utilized in the generation of radio frequency currents so as to guard against unnecessary interference to other services. In cases of harmful interference arising from the design, construction, or operation of the equipment, the Commission may require appropriate technical changes in equipment to alleviate interference.

(d) Controls which may effect changes in the carrier frequency of the transmitter shall not be accessible from the exterior of any unit unless such accessibility is specifically approved by the Commission.

§95.653 Test procedure.

Type approval tests to determine whether radio equipment meets the technical specifications contained in this part will be conducted under the following conditions:

(a) Gradual ambient temperature variations from 0° to 125° F.

(b) Relative ambient humidity from 20 to 95 percent. This test will normally consist of subjecting the equipment for at least three consecutive periods of 24 hours each, to a relative ambient humidity of 20, 60, and 95 percent, respectively, at a temperature of approximately 80° F.

(c) Movement of transmitter or objects in the immediate vicinity thereof.

(d) Power supply voltage variations normally to be encountered under actual operating conditions.

(e) Additional tests as may be prescribed, if considered necessary or desirable.

§95.655 Certificate of type approval.

A certificate or notice of type approval, when issued to the manufacturer of equipment intended to be used or operated in the Personal Radio Services, constitutes a recognition that on the basis of the test made, the particular type of equipment appears to have the capability of functioning in accordance with the technical specifications and regulations contained in this part: *Provided*, That all such additional equipment of the same type is properly constructed, maintained, and operated: *And provided further*, That no change whatsoever is made in the design or construction of such equipment except upon specific approval by the Commission.

This edition of the Rules includes all amendments through March, 1977. The texts of future amendments may be found in the *Federal Register*, which is published daily by the Office of the Federal Register. Copies of these amendments are not supplied by the Government.

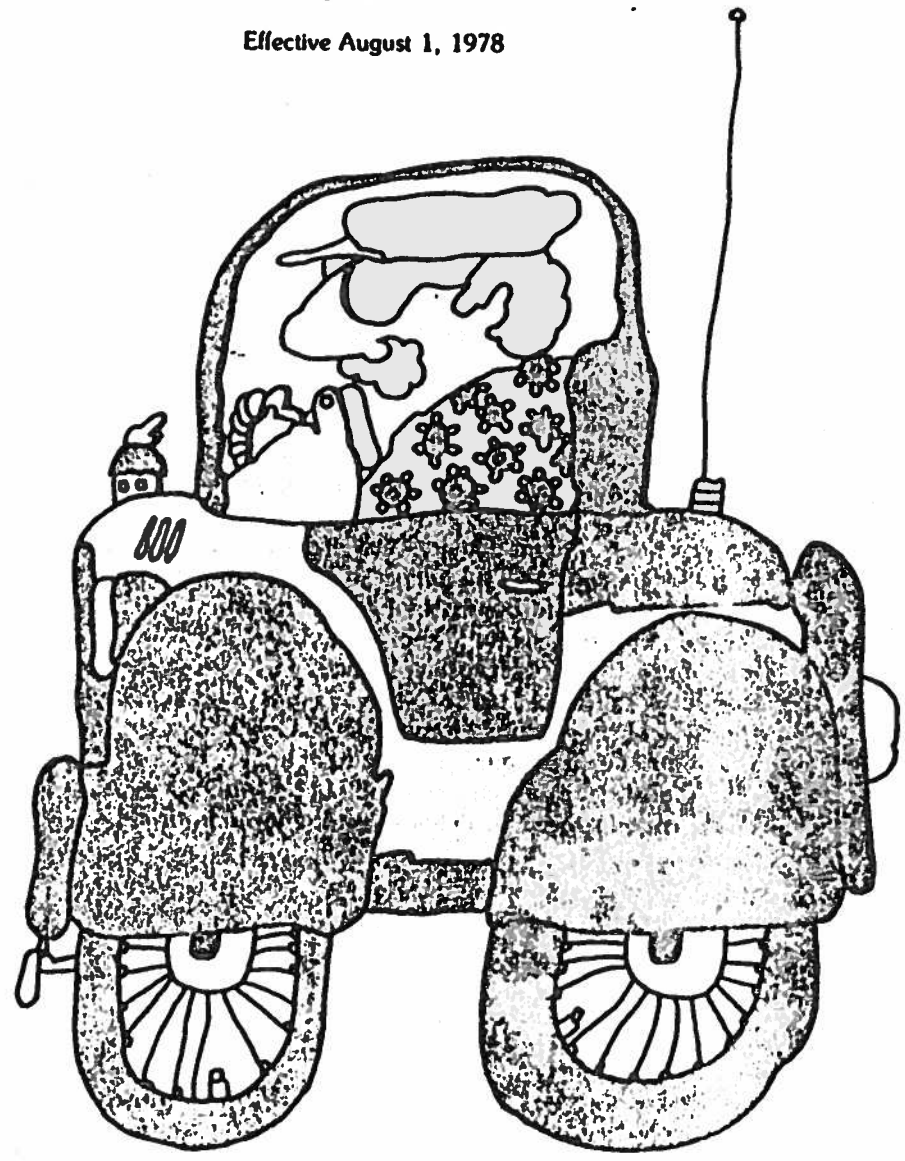
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Subpart D

CB Citizens Band Radio Service Rules 95.401

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939

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Welcome to CB

You are joining the many millions of CBers who have their own personal two-way radio stations. It's easy to become a CBer. If you are old enough to vote and you can qualify for a license, you can get on the air right away. Remember, though, that you are operating a radio station.

Your FCC license gives you the privilege of using the CB channels, but it also requires you to accept the responsibility to use them properly so as not to cause interference problems.

The CB Radio Service, like other radio services, is made up of a number of stations that transmit messages on radio frequency channels. These frequencies are limited by the laws of nature—there's room in the radio spectrum for only a limited number. The Federal Communications Commission issues radio licenses as a method of regulating the use of these frequencies. When you apply for a CB license, you agree to follow the rules set by the FCC to make your radio service a useful one.

Read the rules carefully. Following them is the least you can do to become a good CBer. Also follow the rules of good manners, cooperate with other CBers sharing the 40 CB channels, use a little radio courtesy, and enjoy your CB.

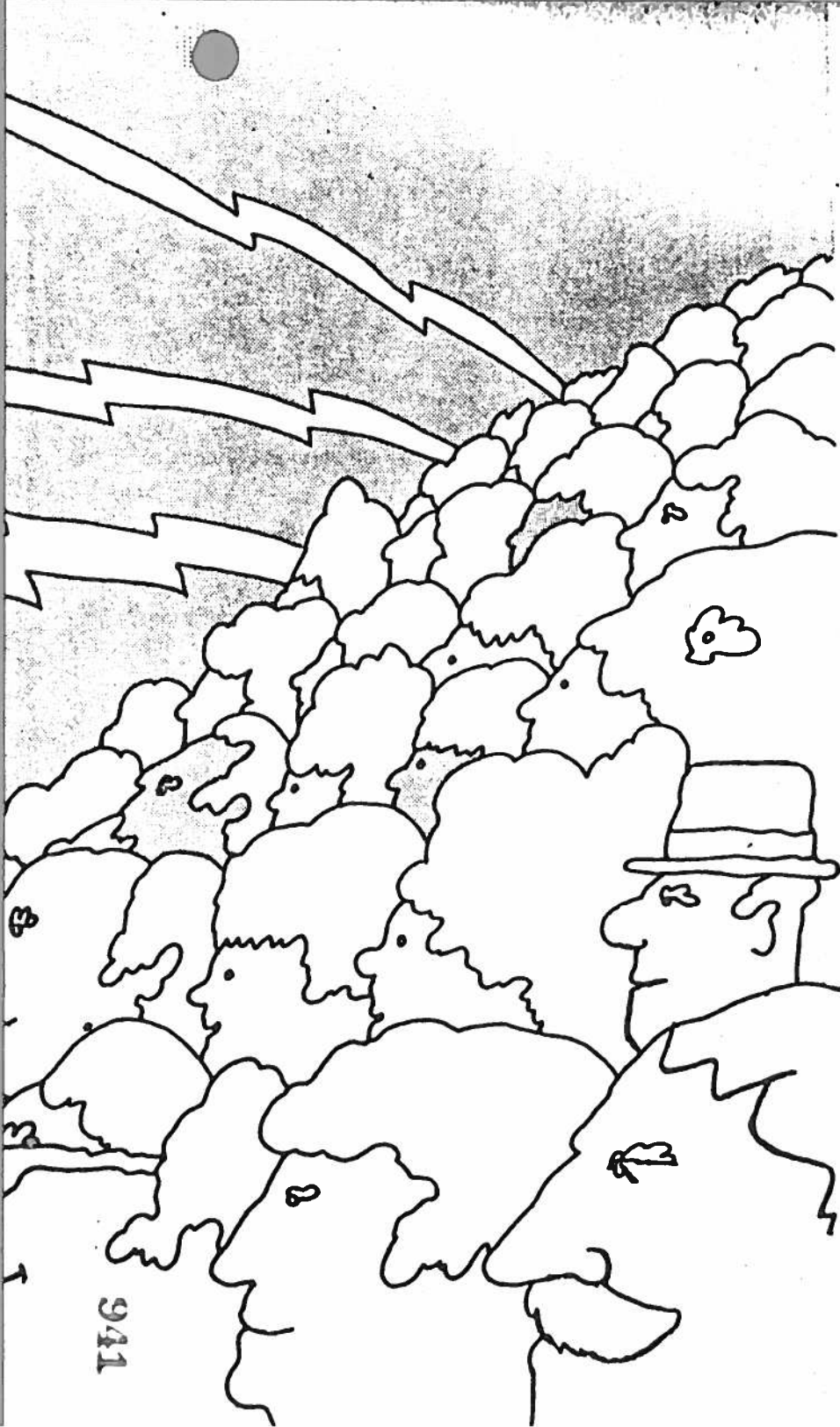
General Provisions

CB Rule 1 What Is the Citizens Band (CB) Radio Service?

The CB Radio Service is a private, two-way, short-distance voice communications service for personal or business activities. The CB Radio Service may also be used for voice paging.

CB Rule 2 How do I use these rules?

- (a) Read and obey the rules. See CB Rule 37 for the penalties for violations of these rules.
- (b) Where the rules use the word "you", "you" means an applicant, a licensee, or an individual holding a valid temporary permit, where appropriate.
- (c) Where the rules use the word "person," the rules are concerned with any person, including an individual, a



corporation, a partnership, or an association.

CB Rule 3 Do I need a license?

Before operating a CB transmitter, you must have authority from the FCC as follows:

An Individual Must:

Get a CB license from the FCC;
or
Have a properly filled-out temporary permit (FCC Form 555-B);
or
Qualify to operate a CB transmitter under the authority of another person's license.

An Association, Partnership, Corporation, or Governmental Unit Must:

Get a CB license from the FCC;
or
Request, receive, and comply with a special temporary authority or other special authorization from the FCC.



CB Rule 4 Am I eligible to get a CB license?

(a) You are eligible for a CB license if—

You are:	And you are not:
An individual, and you are eighteen years old or older;	
A partnership, and each partner is eighteen years old or older;	
A corporation;	a foreign government
An association;	a representative of a foreign government
A state, territorial or local governmental unit; or	or a federal government agency
Other legal entity	

- (b) You must not have more than one CB license at any one time.
- (c) Any agency operating under the authority of an eligible governmental unit, including an authorized Civil Defense agency, is also eligible for a CB license.
- (d) A subsidiary or division of a corporation is not eligible for its own CB license unless the subsidiary or division is separately incorporated.

How To Apply For Your CB License

There are three steps to take before you can get your CB license. The first step is to fill out a license application. The second step is to mail it to the FCC. And the third step is to get your Temporary Permit or a Special Temporary Authority to operate while you wait for your license.

Step 1

Your application is an important document, so fill it out correctly. You can use the FCC Form 505 included in this book. Follow the instructions and look at the illustrated examples.

(ITEM 1) If you are applying as an individual, print your full name here the same way as it appears in your signature. If you are applying as an organization, leave ITEMS 1 and 2 blank.

1. Complete ONLY if license is for an individual or individual doing business as

C	H	A	R	L	E	Y					B	R	U	L	E	J	R
FIRST NAME										INIT	LAST NAME						

(ITEM 2) Use numbers to enter the month, day, and year of your birth. Do not enter today's date or this year. Leave this blank if you are not applying as an individual.

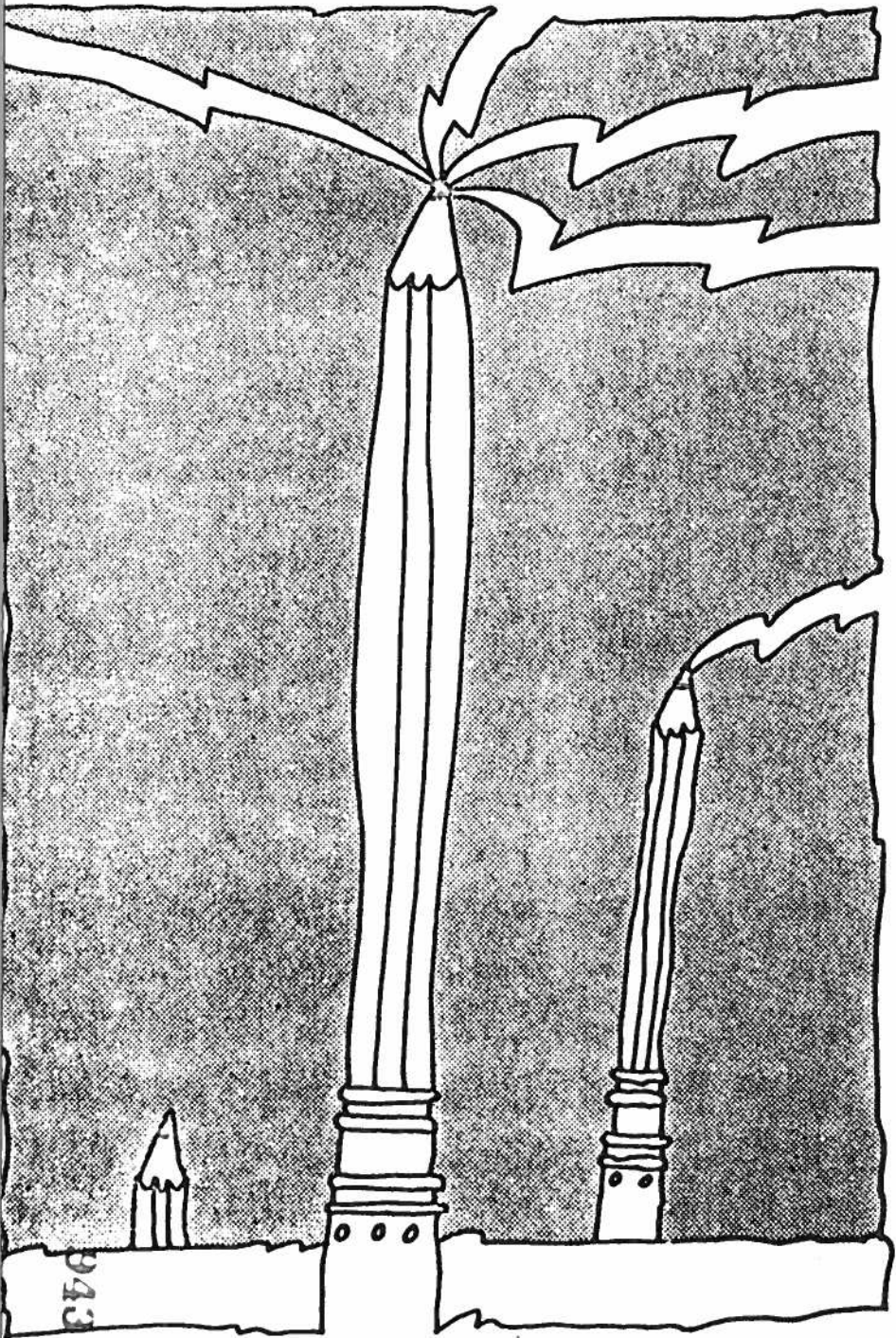
2. DATE OF BIRTH

											10	04	36
										MONTH	DAY	YEAR	

(ITEM 3) If you want to be licensed as a business or organization, print the official name of your organization here. If you are an individual who wants to be licensed as a business, print your name in ITEM 1, your date of birth in

3. Complete ONLY if license is for a business, an organization, or individual doing business as

X	Y	Z		B	O	D	Y		S	H	O	P							
NAME OF BUSINESS OR ORGANIZATION																			



ITEM 2, and the name of your business here. Other individuals should leave this item blank.

(ITEM 4) Print your mailing address here. If it is a post office box, rural delivery or general delivery, or if it does not describe where your CB station will be located, you must also fill out ITEM 5. Be sure to use the two-letter abbreviation for your state (ITEM 4-C) and to include your zip code (ITEM 4-D).

4. Mailing Address

40 CHANNEL DRIVE

4A. NUMBER AND STREET

4B. CITY

ACTON

(See reverse side of this form, for filling in Item 4C.)

4C. STATE 4D. ZIP CODE

ME 04001

(ITEM 5) If your mailing address in ITEM 4 describes where your CB station will be located, leave this blank. If not, describe its location in other words. If you have no street number, describe where it is as if you were telling someone where you live. Do not merely state where your CB is installed. (For example, don't say, "In my pick-up truck.") In ITEMS 5B and 5C, print the nearest town or city and state even if they are not the same as Items 4B and 4C.

5. If you gave a P.O. Box No., RFD No., or General Delivery in Item 4A, you must

FARM ON OLD MILL CREEK

5A. NUMBER AND STREET WHERE YOU OR YOUR PRINCIPAL STATION
(If your location can not be described by number and street, give other description, such as, on RT 2, 3 mi., north of York)

5B. CITY 5C. S

MIDDLETOWN

(See reverse side of this form for filling in Item 5C.)

(ITEM 6) Check the box that best describes you or the organization to be licensed. (If you are neither an individual nor a business, you're probably either an association or a government entity. An association is any group applying for a license for a CB station to be used by its members. Check the distinctions listed under CB Rule 26. A government entity is any agency operated by a state, county, or local government, such as a police or fire department or a public school system. A Federal Government agency is not eligible for a CB license. You should not have to check "Other" except for an unusual situation.)

6. Type of Applicant (Check Only One Box)

Individual Association Corporation

Business Partnership Governmental Entity

Sole Proprietor or Individual/Doing Business As

Other (Specify) _____

(ITEM 7) If you are applying for your first CB license, or if you have let your license expire, check "New license." If you are renewing your license or increasing the number of transmitters you plan to use, check the appropriate box and print your official FCC call sign in the boxes on the right.

7. This application is for

New License

Renewal

Increase in Number of Transmitters

IMPORTANT
Give Official FCC Call Sign

(ITEM 8) Check "Citizens Band Station License."

(ITEM 9) Check the box that indicates how many CB sets (transmitters) you plan to use during your license term. You only need one station license to operate as many as 25 different CB sets. If you plan to use more than 25, specify how many in the boxes on the right and attach a statement explaining why you need more than 25.

9. Indicate number of transmitters applicant will operate during the five year license period (Check Only One Box)

1-25 26 or more (Specify No and attach statement justifying need)

(ITEM 10) Read these statements carefully. If you do not agree with any of them, you cannot become a CBer. These statements are your promise to obey the CB rules.

10. CERTIFICATION I certify that:

- The applicant is not a foreign government or a representative thereof
- The applicant has or has ordered a current copy of Subpart C for Radio Control or Subpart D for Citizens Band of Part 95 of the Commission's Rules.
- The applicant will operate his transmitter in full compliance with the applicable law and current rules of the FCC and that his station will not be used for any purpose contrary to Federal, State, or local law or with greater power than authorized
- The applicant waives any claim against the regulatory power of the United States relative to the use of a particular frequency or the use of the medium of transmission of radio waves because of any such previous use, whether licensed or unlicensed

(ITEM 11) If you are applying as an individual, sign your name exactly as it appears in Item 1. If you are not applying as an individual, sign the application as directed in CB Rule 11.

11. SIGNATURE *Charley B. Rule Jr.*
 Signature of: Individual applicant, partner, or authorized person on governmental entity, or an officer of a corporation or association


(ITEM 12) Enter today's date.

12. DATE *August 1, 1978*

Step 2

After you have completed the application, turn it over and print your name and mailing address in the space blocked off, then print your temporary call sign in the boxes at the bottom. Starting with the box after K, print your first and last initials and the five numbers of your zip code. Mail your completed form to:

Charley B. Rule Jr.
40 Channel Drive
Acton, ME 04001



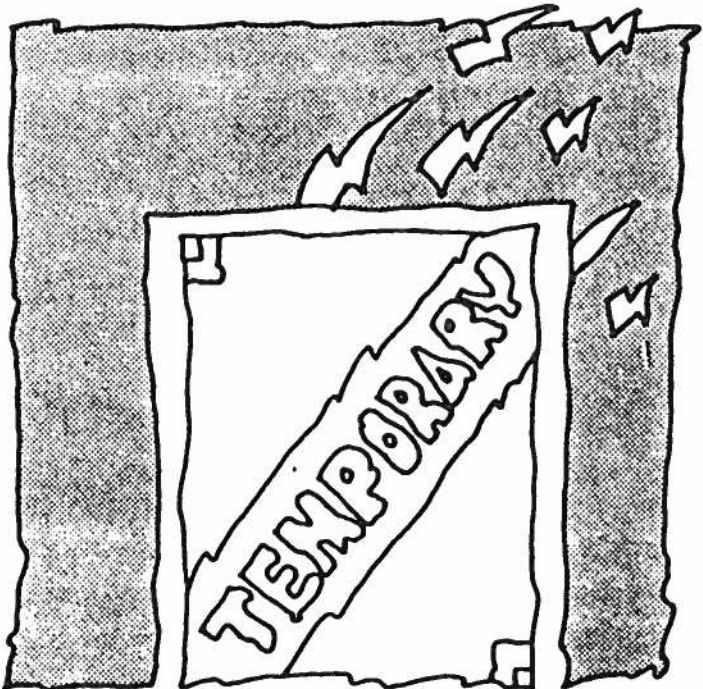
Federal Communications Commission
Gettysburg, PA 17326

Step 3

The address is important because it contains the special zip code, 17326, used only for CB applications. This special zip code must be used to insure prompt delivery of your application to Gettysburg. Since your application will be one of many, you should expect to wait about two months for it to be processed. If you are an individual, you may begin operating your CB station right away with a Temporary Permit that you prepare yourself by filling out an FCC Form 555-B. For your convenience, a Temporary Permit is included here. Simply follow the instructions.

- Use this form only if you want a temporary permit while your regular application, FCC Form 505, is being processed by the FCC.
- Do not use this form if you already have a CB license.
- Do not use this form when renewing your CB license.

Keep your Temporary Permit with this book. If you are not being licensed as an individual, you cannot use a Temporary Permit. CB Rule 7 explains how you may apply for temporary privileges as a business.



Temporary Permit
Citizens Band Radio Station

United States of America
Federal Communications Commission

2 Certification Read, Fill In Blanks, and Sign

I Hereby Certify:

- I am at least 18 years of age.
- I am not a representative of a foreign government.
- I have applied for a CB Station License by mailing a completed Form 505 to the Federal Communications Commission, Gettysburg, Pa. 17326.
- I have not been denied a license or had my license revoked by the FCC.
- I am not the subject of any legal action concerning the operation of a radio station.

Name Edwin D. Mantipley

Address 1509 E. Harmon Ave. #204 LUM 89

Date Form 505 mailed to FCC 6/21/80

Signature Edwin D. Mantipley

If you cannot certify to the above, you are not eligible for a temporary permit.

Willful false statements void this permit and are punishable by fine and/or imprisonment.

3 Temporary Call Sign

• Complete the blocks as indicated.

K	E	M	89409
Initial of Applicant's First Name	Initial of Applicant's Last Name	Applicant's Zip Code	

Use this temporary call sign until given a call sign by the Federal Communications Commission.

4 Limitations

Your authority under this permit is subject to all applicable laws, treaties and regulations and is subject to the right of use or control by the Government of the United States.

This permit is valid for 60 days from the date the Form 505 is mailed to the FCC.

You must have a temporary permit or a license from the FCC to operate your Citizens Band radio transmitter.

Do not mail this form. This is your temporary permit.

FCC FORM 555-B
May 1978

CB Rule 5 How do I apply for a CB license?

- (a) You apply for a CB license by filling out an application (FCC Form 505) and sending it to the FCC, Gettysburg, Pa. 17326.
- (b) You can get applications from the FCC; Washington, D.C. 20554 or from any FCC field office. (A list of FCC field offices is contained in CB Rule 45.) Many CB equipment dealers also have application forms.
- (c) If you have questions about your application, you should write to the Personal Radio Division, FCC, Washington, D.C. 20554.
- (d) If your application is not completely filled out, if you do not make the necessary certifications, or you do not include all necessary information with your application, the FCC may return your application.
- (e) A Canadian Radio Service licensee may apply for permission to operate his or her station in the United States by filling out an application (FCC Form 410-B) and sending it to the FCC, Gettysburg, Pa. 17325.

CB Rule 6 May I operate my CB station while my application is being processed?

- (a) If you are an individual, you may operate your CB transmitter after you have mailed your CB license application to the FCC, if—
 - (1) You fill out a temporary permit application (FCC Form 555-B), and
 - (2) You keep this form with your station records. The completed form is your temporary permit.
- (b) A CB temporary permit is valid for 60 days after you mail your CB license application to the FCC.

CB Rule 7 We are not an individual. How do we apply for temporary privileges?

- (a) Only an individual applicant may use a temporary CB permit.

- (b) A partnership, corporation, association, joint-stock company, trust or governmental unit may operate a CB transmitter while its application for a new CB license is pending only if it has obtained special temporary authority from the FCC. A written request for special temporary authority, including a justification for the request, may be submitted to the Personal Radio Division, FCC, Washington, D.C. 20554.

CB Rule 8 How do I renew or modify my CB license?

- (a) You renew or modify your license in the same way that you apply for a new CB license. You should allow at least sixty days for the FCC to act on your application.
- (b) If you send your application before your license expires, you may continue to operate under that license until the FCC acts on your application. You do not need a temporary permit, but you should keep a copy of the application you send to the FCC.
- (c) You must stop transmitting as soon as your license expires, unless you have already sent your renewal application to the FCC. You may not begin transmitting again until you have received a new license from the FCC.

CB Rule 9 How does a corporation holding a CB license apply for consent to transfer control of the corporation?

If a corporation holds a CB license, it must obtain written permission from the FCC before it transfers control of the corporation. A request for this consent must be made on FCC Form 703, and must be sent to the FCC; Washington, D.C. 20554.

CB Rule 10 What address do I put on my application?

- (a) You must include your current complete mailing address in the United States and station address on your CB license application.
- (b) A Canadian General Radio Service licensee may supply a Canadian address, if he or she is applying for

permission to operate a General Radio Service station in the United States. A Canadian General Radio Service licensee applies for permission to operate a General Radio Service station in the United States on FCC Form 410-B.

CB Rule 11 How do I sign my CB license application?

- (a) If you are an individual, you must sign your own application personally.
- (b) If you are not an individual, you must sign your application as follows:

Applicant	Signature
Partnership	One of the partners
Corporation	Officer
Association	Member who is an officer
Governmental Unit ..	Appropriate elected or appointed official

- (c) If the FCC requires you to submit additional information, you must sign it in the same way you signed your application.
- (d) If you willfully make a false statement on your application, you may be punished by fine, imprisonment and revocation of your station license.

CB Rule 12 How long is my license term?

Your CB license term is usually five years from the date the FCC first issued or renewed it. The expiration date is printed on the license.

CB Rule 13 What kind of operation does my license allow?

- (a) You must obey all the conditions and terms of your license.
- (b) You may operate your CB station from your car, your house, or any other fixed location. (The FCC licenses all CB stations as mobile stations.)
- (c) Your CB license allows you to operate with up to 25 transmitters. To use more than 25 transmitters, you must request and receive written permission from the Personal Radio Division, FCC, Washington, D.C. 20554. Attach a letter to your application explaining

why you need more than 25 transmitters and how you will control the operation of the transmitters.

CB Rule 14 What must I do if my name or address changes?

- (a) If your name, station address, or mailing address changes, you must inform the FCC, Gettysburg, Pa. 17326. Your notice must include the name and address as it appears on your license, the new name or new address, and your call sign. You must keep a copy of this notice in your station records. (Your notice may be in letter form. Your CB license may have a form attached to it which you can also use for this purpose.)
- (b) If you hold a CB license, and then incorporate, form a new partnership, or form a new association, you must apply for a new CB license.

CB Rule 15 May I transfer my CB license to another person?

- (a) You must not let anyone who is not listed in CB Rule 26 operate under your license. You cannot transfer, assign, sell, or give your CB license or its operating authority to another person.
- (b) If you sell or give your CB transmitter to another person, you must not transfer your CB license with the transmitter. The new owner of the CB transmitter must obtain a CB license or other authority from the FCC in his or her own name or qualify to operate under CB Rule 26 before he or she can operate the transmitter.

CB Rule 16 Are there any special restrictions on the location of my CB station?

- (a) If your CB station will be constructed on land of environmental or historical importance (such as a location significant in American history, architecture or culture), you may be required to provide additional information with your license application and to comply with §1.1305-1.1319 of the FCC's Rules.
- (b) If your CB station is located on land controlled by the Department of Defense, you may be required to comply with additional regulations imposed by the commanding officer of the installation.

Getting on the Air

The rules in this section tell you how to operate your CB station and define your responsibilities when you get on the air.

Before you buy your CB equipment, ask yourself these questions about the radio and the accessories you plan to use:

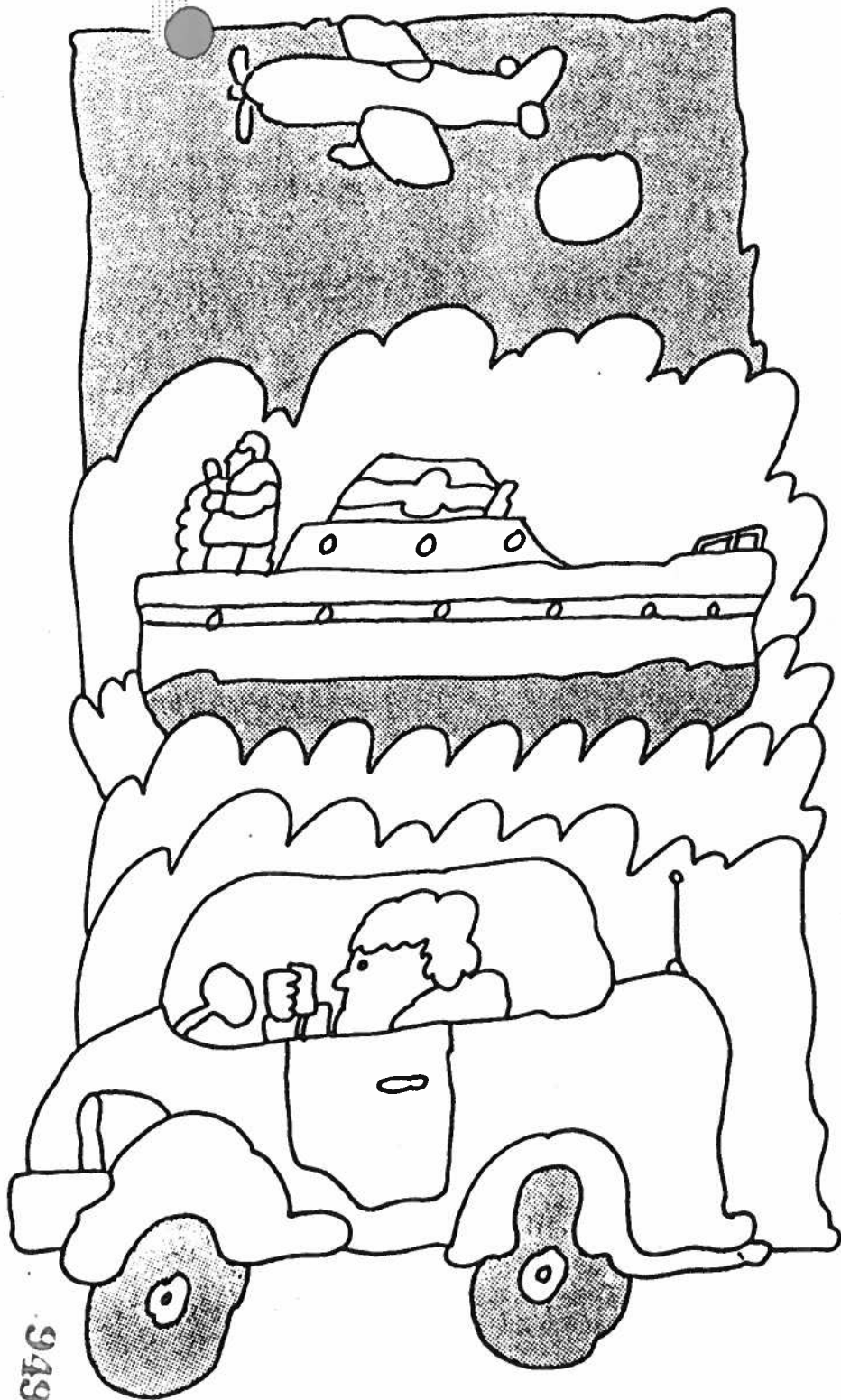
- How will I use my CB? In my home? In my car or boat? On the job?
- If my CB is a used set, should I get it tested before I use it?
- What kind of antenna do I need?
- Am I qualified to install my radio and antenna?
- What hazards should I be aware of?
- How do I know if my CB is working properly after installation?

You can find the answers to these questions by reading these rules, talking with CB dealers, looking through CB periodicals or books, and attending CB club meetings. Notices about local or area CB activities or events often appear in your local newspaper.

FCC rules require you to use radio equipment that has been manufactured to meet certain technical standards. Your transmitter must operate accurately on all 40 CB channels (CB Rule 7) and must have a limited power output (CB Rule 20 and 21). If your transmitter meets FCC standards, it will have a "type acceptance" label on it. Look for this label before you buy your set.

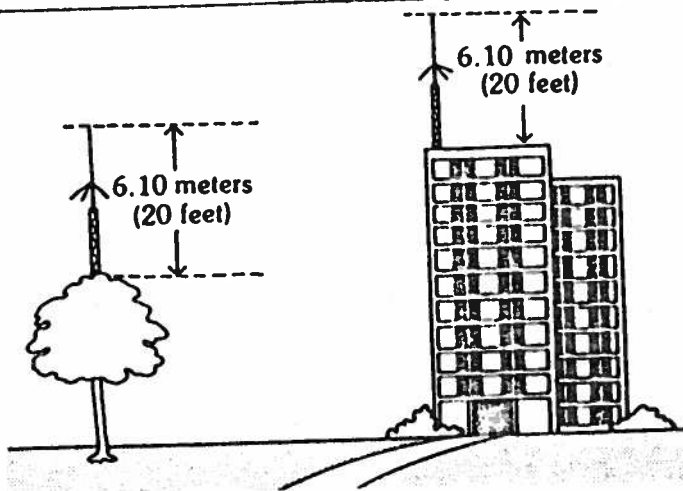
In addition to a CB transmitter, you'll need an antenna. If you'll be operating a base station, you may want to use the charts in this section to find out how high your antenna can be.

Caution: Installing your CB or your antenna can be dangerous. If either your CB radio or antenna is not installed correctly, you may damage your transmitter or suffer a severe and possibly fatal electrical shock. Follow the manufacturer's instructions for installing your equipment, or



Procedure for Determining Maximum Antenna Height

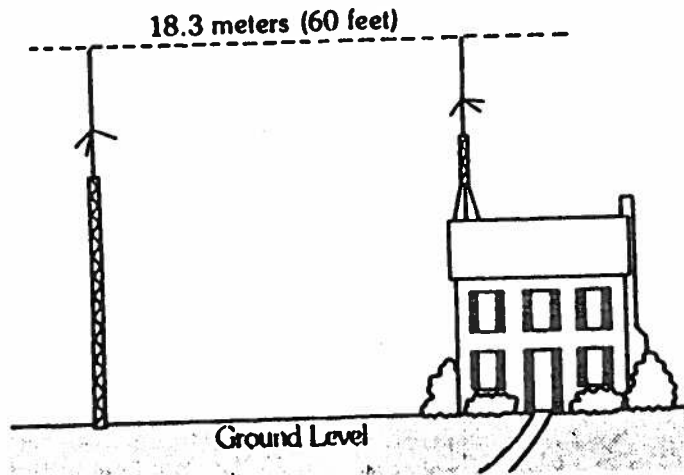
CB Rule 18
20 ft. Rule
(6.10 meters)



1. The highest point must not be more than 6.10 meters (20 feet) higher than the highest point of the building or tree on which it is mounted;

or

60 ft. Rule
(18.3 meters)



2. The highest point must not be more than 18.3 meters (60 feet) above the ground.

If your CB station is located near an airport, see pages 40-45 for additional information and diagrams.

seek the help of a person who is technically qualified to do the job. When you put up your antenna, take special precautions to avoid touching power lines.

When your equipment is installed and operating properly, you are ready to get on the air. Remember two things:

- 1) Always follow the operating rules.
- 2) Always keep your equipment in good working condition.

CB Rule 17 On what channels may I operate?

(a) You may transmit on only the following channels (frequencies):

Channel:	Frequency (megahertz)
1	26.965
2	26.975
3	26.985
4	27.005
5	27.015
6	27.025
7	27.035
8	27.055
9	27.065
10	27.075
11	27.085
12	27.105
13	27.115
14	27.125
15	27.135
16	27.155
17	27.165
18	27.175
19	27.185
20	27.205
21	27.215
22	27.225
23	27.255
24	27.235
25	27.245
26	27.265
27	27.275
28	27.285
29	27.295

Channel:	Frequency (megahertz)
30	27.305
31	27.315
32	27.325
33	27.335
34	27.345
35	27.355
36	27.365
37	27.375
38	27.385
39	27.395
40	27.405

- (b) CHANNEL 9 MAY BE USED ONLY FOR EMERGENCY COMMUNICATIONS OR FOR TRAVELER ASSISTANCE.
- (c) YOU MUST, AT ALL TIMES AND ON ALL CHANNELS, GIVE PRIORITY TO EMERGENCY COMMUNICATIONS.
- (d) You may use any channel for emergency communications or for traveler assistance.
- (e) You must share each channel with other users.
- (f) The FCC will not assign any channel for the private or exclusive use of any particular CB station or group of stations.
- (g) The FCC will not assign any channel for the private or exclusive use of CB stations transmitting single sideband or AM.

CB Rule 18 How high may I put my antenna?

- (a) If your antenna is installed at a fixed location, the antenna structure (whether receiving, transmitting or both) must comply with *either one* of the following:
 - (1) The highest point must not be more than 6.10 meters (20 feet) higher than the highest point of the building or tree on which it is mounted; or

- (2) The highest point must not be more than 18.3 meters (60 feet) above the ground.

WARNING: INSTALLATION AND REMOVAL OF CITIZENS BAND BASE STATION ANTENNAS NEAR POWERLINES IS DANGEROUS. FOR YOUR SAFETY, FOLLOW THE INSTALLATION DIRECTIONS INCLUDED WITH YOUR ANTENNA.

- (b) If your CB station is located near an airport, and if your antenna structure is more than 6.1 meters (20 feet) high, you may have to obey additional restrictions. The highest point of your antenna must not exceed one meter above the airport elevation for every hundred meters of distance from the nearest point of the nearest airport runway. Differences in ground elevation between your antenna and the airport runway may complicate this formula. If your CB station is near an airport, you may contact the FCC for a worksheet to help you figure the maximum allowable height for your antenna. Consult Part 17 of the FCC's Rules for more information.

CB Rule 19 What equipment may I use at my CB station?

- (a) You must use an FCC type-accepted CB transmitter at your CB station. You can identify an FCC type-accepted transmitter by the type-acceptance label placed on it by the manufacturer. You may examine a list of type-accepted equipment at any FCC Field Office or at FCC Headquarters.
- (b) You must not make, or have made, any internal modification to a type-accepted CB transmitter. Any internal modification to a type-accepted CB transmitter cancels the type acceptance.
- (c) You must have all internal repairs or internal adjustments to your transmitter made by, or under the direct supervision of, a licensed first- or second-class radiotelephone commercial operator. (See CB Rule 41.)

CB Rule 20 How much power may I use?

- (a) Your CB transmitter power output must not exceed the following values under any conditions:
 - AM(A3) 4 watts (carrier power)
 - SSB(A3J) 12 watts (peak envelope power) *Amplitude 200w*
- (b) If you need more information about the power rule, see the technical rules in Subpart E of Part 95.

CB Rule 21 May I use power amplifiers?

- (a) You must not use or attach a linear or external radio frequency (RF) power amplifier at any CB station in any way.
- (b) There are no exceptions to this rule.
- (c) The FCC will presume you have used a linear or other external RF power amplifier if—
 - (1) It is in your possession or on your premises; and
 - (2) There is other evidence that you have operated your CB station with more power than allowed by CB Rule 20.
- (d) Paragraph (c) of this rule does not apply if you hold a license in another radio service which allows you to operate an external RF power amplifier.

CB Rule 22 What communications may I transmit?

- (a) You may transmit two-way plain language communications only to other CB stations, to units of your own CB station or to authorized government stations on CB frequencies about—
 - (1) Your personal or business activities or those of members of your immediate family living in your household;
 - (2) Emergencies (see CB Rule 25);
 - (3) Traveler assistance (see CB Rule 25); and
 - (4) Civil defense activities in connection with official tests or drills conducted by, or actual emergencies announced by, the civil defense agency with authority over the area in which your station is located.
- (b) You may transmit a tone signal only when the signal is used to make contact or continue communications. (Examples of circuits using these signals are tone operated squelch and selective calling circuits.) If your signal is an audible tone, it must last no longer than 15 seconds at one time. If your signal is a subaudible tone, it

may be transmitted continuously only as long as you are talking.

- (c) You may transmit one-way communications for the purpose of voice paging.
- (d) You may transmit in a foreign language, as long as you identify your CB station in the English language.

CB Rule 23 What communications are prohibited?

- (a) You must not use a CB station—
 - (1) In connection with any activity which is against federal, state or local law;
 - (2) To transmit obscene, indecent or profane words, language or meaning;
 - (3) To interfere intentionally with the communications of another CB station;
 - (4) To transmit one-way communications, except for emergency communications, traveler assistance, brief tests (radio checks), or voice paging;
 - (5) To advertise or solicit the sale of any goods or services;
 - (6) To transmit music, whistling, sound effects or any material to amuse or entertain;
 - (7) To transmit any sound effect solely to attract attention;
 - (8) To transmit the word "Mayday" or any other international distress signal, except when your station is located in a ship, aircraft, or other vehicle which is threatened by grave and imminent danger and you are requesting immediate assistance;
 - (9) To communicate with, or attempt to communicate with, any CB station more than 250 kilometers (155.3 miles) away;
 - (10) To advertise a political candidate or political campaign; (You may use your CB radio for the business or organizational aspects of a campaign, if you follow all other applicable rules.);
 - (11) To communicate with unlicensed stations or stations in other countries; and
 - (12) To transmit a false or deceptive communication.

- (b) You must not use a CB station to transmit

communications for live or delayed rebroadcast on a radio or television broadcast station. You may use your CB station to gather news items or to prepare programs.

- (c) A CB station licensed to a telephone answering service must not be used to transmit messages to its customers. (See CB Rule 26).

CB Rule 24 May I be paid to use my CB station?

- (a) You must not accept direct or indirect payment for transmitting or receiving messages with a CB station.
- (b) You may use a CB station to help you provide a service, and be paid for that service, as long as you are paid only for the service and not for the actual use of the CB station.

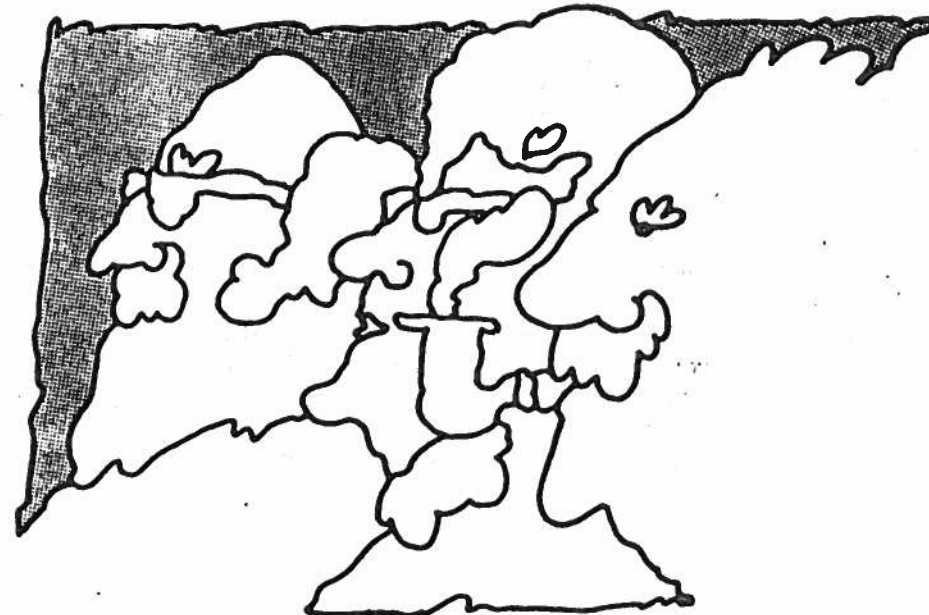
CB Rule 25 How do I use my CB station in an emergency or to assist a traveler?

- (a) You must, at all times and on all channels, give priority to emergency communications.
- (b) When you are directly participating in emergency communications, you do not have to comply with the rules about authorized users (CB Rule 26), length of transmissions (CB Rule 29), and communications with unlicensed stations (CB Rule 23). You must obey all other rules.
- (c) You may use your CB station for communications necessary to assist a traveler to reach a destination or to receive necessary services. When you are using your CB station to assist a traveler, you do not have to obey the rule about length of transmissions (CB Rule 29). You must obey all other rules.

CB Rule 26 Who may operate under my license?

- (a) You may permit only the persons listed below to operate under your license.

If you are:	The authorized users are:
Individual:	Yourself. Members of your immediate family living in your household. Each of your employees as long as his or her communications are only about your business.
Partnership:	Each Partner and Employee of the partnership, as long as his or her communications are only about the business of the partnership.
Association:	Each Member of the association as long as his or her communications are only about the business of the association. Each Employee of the association, as long as his or her communications are only about the business of the association.
Corporation:	Each Officer, Director and Employee of the corporation, as long as his or her communications are only about the business of the corporation.
Governmental Unit:	Each Employee of the governmental unit, as long as his or her communications are only about the business of that governmental unit.



- (b) Someone else may operate your CB station if you request, and the FCC grants, special authorization to allow operation under your license where he or she would not otherwise qualify to operate your CB station.
- (c) If you are a corporation, you may, upon request and FCC approval, permit your parent corporation or subsidiary to provide you with a private radiocommunications service under your license if the subsidiary or parent corporation provides the service on a non-profit or cost-sharing basis.
- (d) (1) You may employ a telephone answering service to relay telephone messages to you on your CB transmitter if—
 - (i) You install or have someone else install a transmitter of your CB station at the answering service;
 - (ii) Your transmitter is used only under the authority of your license; and
 - (iii) Your transmitter is used only to relay messages to you about your personal or business affairs.
 (2) If your transmitter is installed at a telephone answering service, it must not be used under the authority of any CB license other than yours.
- (e) If you authorize any of the persons listed in paragraphs (a), (b), (c), or (d) of this rule to operate under your license, you must keep a list of all authorized users as part of your station records.

CB Rule 27 Who is responsible for transmissions made under the authority of my license?

You are responsible for all transmissions which are made by you or others under the authority of your license, including transmissions which are against these rules. Because you are responsible for all transmissions, you should be certain that anyone operating under your license understands and obeys the rules.

CB Rule 28 Who must not operate under my license?

- (a) You must not permit anyone to operate under your license who is not listed in CB Rule 26, except in an emergency.
- (b) You must not permit anyone who no longer has a CB license to operate under your license if—
 - (1) His or her license was revoked by the FCC; or
 - (2) His or her license was surrendered for cancellation after notice of apparent liability to forfeiture was served by the FCC; or
 - (3) His or her license was surrendered for cancellation after the FCC instituted revocation proceedings.
- (c) You must not permit anyone to operate your CB station if the FCC has issued a cease and desist order to that person, and the order is still in effect.
- (d) You must not permit anyone to operate under your license if that person's most recent CB license application was denied by the Commission or dismissed with prejudice.
- (e) If you sell CB transmitters, you must not allow a customer to operate a CB transmitter under the authority of your license.

CB Rule 29 Do I have to limit the length of my communications?

- (a) Your communications must be limited to the minimum practical time.
- (b) If you are communicating with another CB station or stations, you, and the stations communicating with you, must limit each of your conversations to no more than five continuous minutes.

- (c) At the end of your conversation, you, and the stations communicating with you, must not transmit again for at least one minute.

CB Rule 30 .How do I identify my CB communications?

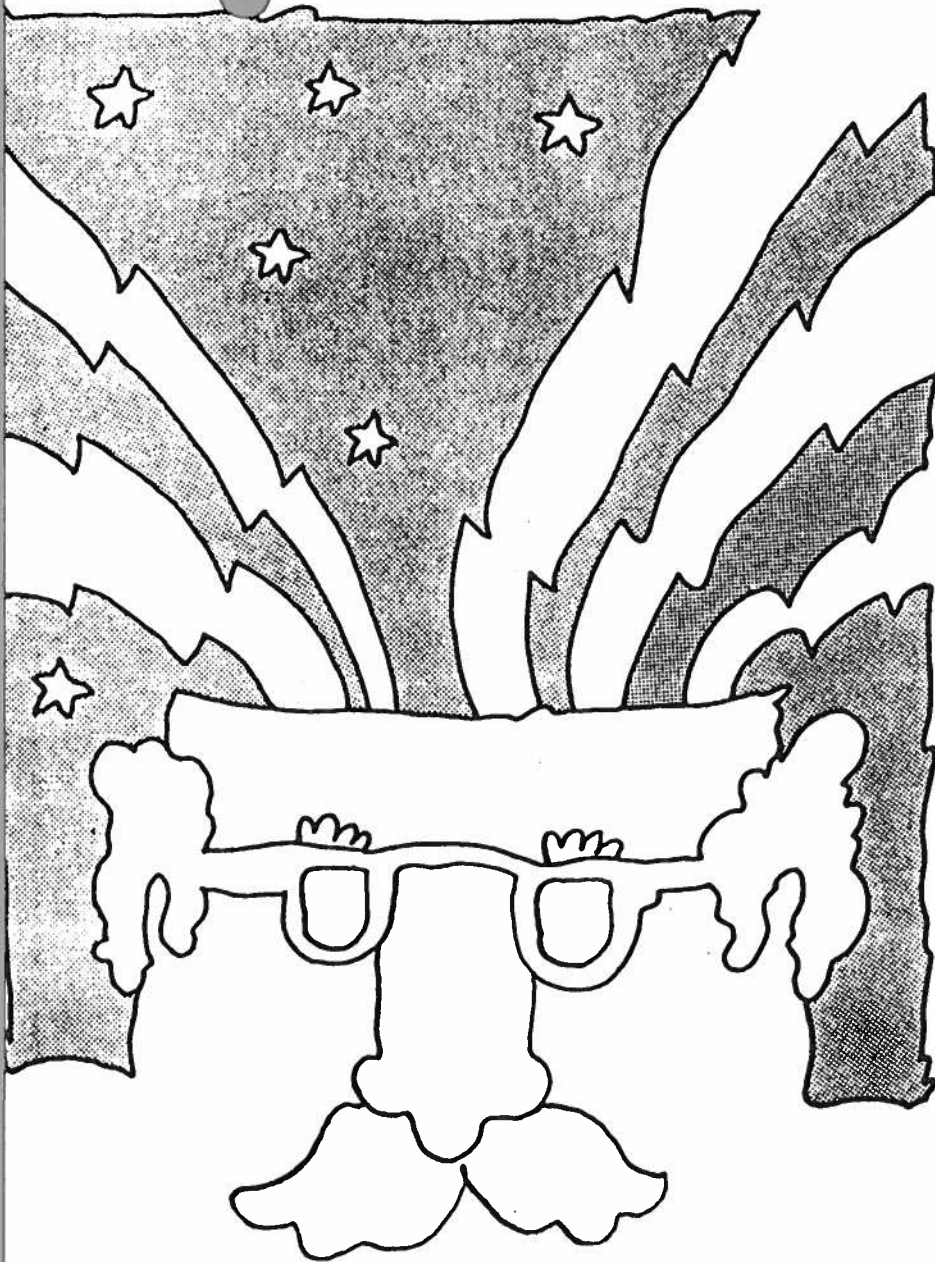
- (a) You must identify your CB communications by your FCC-assigned call sign at the end of each communication.
- (b) Your FCC-assigned call sign must be clearly given in the English language. A phonetic alphabet may be used as an aid for identification. A "handle", unit designator, or special identifier may be used *in addition to*, but not instead of, your FCC-assigned call sign.

CB Rule 31 Where may I operate my CB station?

- (a) You may operate your CB station in any of the fifty United States, in the District of Columbia, in Puerto Rico, in the United States Virgin Islands, on Guam, and in all other United States territories and possessions.
- (b) You may operate your CB station in or on any aircraft or vessel of United States registry, with the permission of the appropriate officer.
- (c) If your CB station is outside the fifty United States, the District of Columbia, Puerto Rico, the United States Virgin Islands, Guam or any of the other United States territories and possessions, you are subject to any applicable laws or regulations governing the location at which you are operating.
- (d) You may operate your CB station in Canada, if you request and receive written permission *in advance* from the Canadian Department of Communications.
- (e) If your CB station is located on land controlled by the Department of Defense, you may be required to comply with additional regulations imposed by the commanding officer of the installation.

CB Rule 32 May I operate my CB transmitter by remote control?

- (a) You must not operate a CB transmitter by remote control, except as provided in paragraph (b).
- (b) If you can show satisfactory need, the FCC may grant you written permission to operate by wire-line remote control. You must keep this permission as part of your station records. You can send your request for permission to the Personal Radio Division, FCC, Washington, D.C. 20554.



Part of your responsibility as a CBER is to take care of your radio station. This section of the rules will help you be a good station manager. These rules tell you that you must keep your records up to date, keep your equipment in good working condition, and keep yourself informed about CB—especially changes in the rules. You may even do some of your recordkeeping in this book. For example, one page is provided for you to list the people you have authorized to use your station (CB Rule 26, 27, 28), and another page for you to list your equipment inventory and repairs.

You also will find helpful information in this section, such as the FCC Field Office addresses and a glossary of key words.

- CB Rule 33** How long must I keep my license?
You must keep your license (or other authorization) until it expires or until it is terminated.
- CB Rule 34** Where must I keep my license?
- You must keep your license (or other authorization) in your station records or post it at your station.
 - You may photocopy your license for any lawful purpose.
- CB Rule 35** What do I do if I lose my license?
If you lose your license, you must request a duplicate license from the FCC, Gettysburg, Pa. 17326. Your request must include your name, your address and your station call sign.
- CB Rule 36** Do I need to have a copy of the CB Rules?
- You must keep a current copy of the CB Rules in your station records. The CB Rules are published periodically by the Government Printing Office.
 - You must stay up to date with changes to the CB Rules. Changes to the CB Rules are found in the **Federal Register** and in other publications.
 - Your CB station must comply with technical rules found in Subpart E of Part 95, but you do not have to keep those rules in your station records.

CB Rule 37 What are the penalties for violating these rules?

- (a) If the FCC finds that you have willfully or repeatedly violated the Communications Act, FCC Rules or 18 U.S.C. 1464 (which prohibits the transmission of obscene, indecent or profane language), you may have to pay as much as \$2,000 for each violation, up to a total of \$5,000. (See Section 503(b) of the Communications Act.)
- (b) If the FCC finds that you have willfully or repeatedly violated the Communications Act or FCC rules, it may revoke your CB license. (Other grounds for revoking a CB license are listed in Section 312(a) of the Communications Act.)
- (c) If the FCC finds that you have violated any section of the Communications Act, you may be ordered to stop whatever action caused the violation. (See Section 312(b) of the Communications Act.)
- (d) If a federal court finds that you have willfully and knowingly violated any FCC rule, you may be fined up to \$500 for each day you committed the violation. (See Section 502 of the Communications Act.)
- (e) If a federal court finds that you have willfully and knowingly violated any provision of the Communications Act, you may be fined up to \$10,000, or you may be imprisoned for one year, or both. (See Section 501 of the Communications Act.)

CB Rule 38 How do I answer violation notices?

- (a) If it appears to the FCC that you have violated the Communications Act or these rules, the FCC may send you a written notice of the apparent violation.
- (b) Within the time period stated in the notice, you must provide—
 - (1) A complete written statement about the apparent violation;
 - (2) A complete written statement about any action you

have taken to correct the apparent violation and to prevent it from happening again; and
(3) The name and station call sign of the person operating at the time of the apparent violation.

- (c) You must not shorten your response by references to other communications or notices.
- (d) You must send your response to the office of the FCC which sent you the notice.
- (e) If you cannot answer a violation notice within the time stated in the notice, because of illness or other unavoidable circumstances, you must answer at the earliest possible time and explain the reason for your delay.
- (f) If the violation notice covers a violation related to technical transmitter standards, you must stop transmitting immediately, except for necessary tests and adjustments; and you must not transmit again until all technical problems with the transmitter have been corrected. The FCC may require you to have tests conducted and to report the result of those tests. (See CB Rule 41 for the rules about tests and adjustments.) Test results must be signed by the first or second class commercial radiotelephone operator who conducted or supervised the test or adjustment.
- (g) You must keep a copy of your response as a part of your station records.

CB Rule 39 What must I do if the FCC tells me that my CB station is causing interference?

- (a) If the FCC tells you that your CB station is causing interference for technical reasons, you must follow all instructions in the official FCC notice.
- (b) You must comply with any restricted hours of CB station operation which may be included in the official FCC notice.

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CB Rule 40 May I connect my CB transmitter to a telephone?

- (a) You may connect your CB transmitter to a telephone if you comply with *all* of the following:
- (1) You, or someone authorized to operate under your license, must be present at your CB station and must—
 - (i) Manually make the connection (the connection must not be made by remote control);
 - (ii) Supervise the operation of the transmitter during the connection;
 - (iii) Listen to each communication during the connection; and
 - (iv) Stop all communications if there are operations in violation of these rules.
 - (2) Each communication during the telephone connection must comply with all of these rules.
 - (3) You must obey any restriction that the telephone company places on the connection of a CB transmitter to a telephone.
- (b) The CB transmitter you connect to a telephone must not be shared with any other CB station
- (c) If you connect your CB transmitter to a telephone, you must use a phone patch device which has been registered with the FCC.

CB Rule 41 How do I have my CB transmitter serviced?

- (a) You may adjust your own antenna to your CB transmitter and you may make "radio checks."
- (b) Each internal repair and each internal adjustment to your CB transmitter must be made by, or under the direct supervision of, a person holding a first- or second-class commercial radiotelephone operator license.
- (c) Except as provided in paragraph (d) of this section, each internal repair and each internal adjustment of a CB

transmitter in which signals are transmitted must be made using a nonradiating ("dummy") antenna.

- (d) Brief test signals using a radiating antenna may be sent to adjust a transmitter to an antenna or to detect or measure spurious radiation. These test signals may not be longer than one minute during any five minute period.

CB Rule 42 May I make any changes to my CB transmitter?

- (a) You must not make or have anyone else make any internal modification to your CB transmitter.
- (b) You must not operate a CB transmitter which has been modified by *anyone* in any way, including modification to operate on unauthorized frequencies or with illegal power.

CB Rule 43 Do I have to make my CB station available for inspection?

If an authorized FCC representative requests to inspect your CB station, you must make your CB station available for inspection.

CB Rule 44 What are my station records?

- (a) Your station records include the following documents, as applicable:
- (1) Your temporary permit (CB Rule 6);
 - (2) A copy of each letter telling the FCC of your name or address change (CB Rule 14);
 - (3) Your license (CB Rule 34);
 - (4) A list of authorized users of your CB station (CB Rule 26);
 - (5) A current copy of the CB Rules (CB Rule 36);
 - (6) A copy of each response to an FCC violation notice (CB Rule 38);
 - (7) Each written permission received from the FCC.
- (b) If an authorized FCC representative requests to inspect your station records, you must make your station records available for inspection.

- (c) You must keep your station records for the term of your license.

CB Rule 45 How do I contact the FCC?

- (a) You may write to the following address about your application, about the rules, or when you are requesting permission to use more than 25 transmitters:
 Personal Radio Division, FCC,
 Washington, D.C. 20554
- (b) You may write to the following address when you send your notice of new name or address, or when you send a new or renewal application form:
 FCC, Gettysburg, Pa. 17326
- (c) You may write to any of the following FCC offices in the field if you wish to file an interference complaint. The FCC will forward your complaint to the appropriate field enforcement unit.

- Alaska** Anchorage 99510, FCC, Room G-63, U.S.P.O. and Courthouse Bldg., P.O. Box 644, 4th and F Sts.
- California** Long Beach 90807, FCC, Room 501, 3711 Long Beach Blvd.
 San Diego 92041, FCC, 7840 El Cajon Blvd., Suite 405, Le Mesa, CA 92041
 San Francisco 94111, FCC, 323-A Customhouse, 555 Battery St.
- Colorado** Denver 80202, FCC, Suite 2925, The Executive Tower, 1405 Curtis St.
- District of Columbia** Washington 20554, FCC, 1919 M St. NW, Room 411
- Florida** Miami 33130, FCC, Room 919, 51 Southwest 1st Ave.
 Tampa 33602, FCC, Barnett Office Bldg., Room 809, 1000 Ashley Dr.
- Georgia** Atlanta 30309, FCC, Room 440, Massell Bldg., 1365 Peachtree St. NE.
- Hawaii** Honolulu 96850, FCC, 300 Ala Moana Blvd., Room 7304, Box 50023
- Illinois** Chicago 60604, FCC 230 South Dearborn St., Room 3935.
- Louisiana** New Orleans 70130, FCC, 829 F. Edward Hebert Federal Bldg., 600 South St.

- Maryland** Baltimore 21201, FCC, 819 Federal Bldg., 31 Hopkins Plaza.
- Massachusetts** Boston 02109, FCC, 1600 Customhouse, 165 State St.
- Michigan** Detroit 48226, FCC, 1054 Federal Bldg., 231 West LaFayette St.
- Minnesota** St. Paul 55101, FCC, 691 Federal Bldg. and U.S. Courthouse, 316 North Robert St.
- Missouri** Kansas City 64106, FCC, 1703 Federal Bldg., 601 East 12th St.
- New York** Buffalo 14202, FCC, 1307 Federal Bldg., 111 West Huron St.
 New York 10014, FCC, 201 Varick St.
- Oregon** Portland 97204, FCC, 1782 Federal Office Bldg., 1220 Southwest 3d Ave.
- Pennsylvania** Philadelphia 19106, FCC, James A. Byrne Federal Courthouse, 601 Market St.
- Puerto Rico** Hato Rey 00918, FCC, Room 747, Federal Bldg.
- Texas** Dallas 75242, FCC, Earle Cabell Federal Bldg., U.S. Courthouse, Room 13E7, 1100 Commerce St.
 Houston 77002, FCC, New Federal Office Bldg., 515 Rusk Ave., Room 5636.
- Virginia** Norfolk 23502, FCC, Military Circle, 870 North Military Highway.
- Washington** Seattle 98174, FCC, 3256 Federal Bldg., 915 2d Ave.

CB Rule 46 How are the key words in these rules defined?

In the CB radio rules, the following definitions apply:

Antenna structure means the antenna's radiating system, the antenna's supporting structure, and anything mounted on the antenna or its supporting structure.

Carrier power means the average power at the output terminals of a transmitter (other than a single sideband unit of a transmitter with a suppressed, reduced or controlled carrier) during one radio frequency cycle under conditions of no modulation.

CB station means a station licensed in the Citizens Band (CB) Radio Service. It includes all of the radio equipment you use.

Emergency communications means messages concerning the immediate safety of life or the immediate protection of property.

External radio frequency power amplifier means any device which is not included by the manufacturer in a type-accepted transmitter and which, when used with a radio transmitter as a signal source, is capable of amplifying that signal. (External radio frequency power amplifiers are sometimes known as "linears.")

Mailing address means the place where you receive your mail.

One-way communications means a message which is not intended to establish communications with one or more particular CB stations.

Peak envelope power (used by SSB units) means the average power at the output terminals of a transmitter during one radio frequency cycle at the highest crest of the modulation envelope, taken under conditions of normal (voice) operation.

Person means an individual, a partnership, an association, a joint-stock company, a trust or a corporation.

Plain language communications means communications without codes or coded messages. (Operating signals such as "ten codes" are not considered codes or coded messages.)

Remote control means operation of a CB transmitter from any place other than the location of the transmitter. Direct mechanical control or direct electrical control by wire from some point on the same premises, craft or vehicle as the transmitter is not considered remote control.

Single sideband emission means an emission in which only one sideband is transmitted. The carrier, or a portion of the carrier, may also be present in the emission.

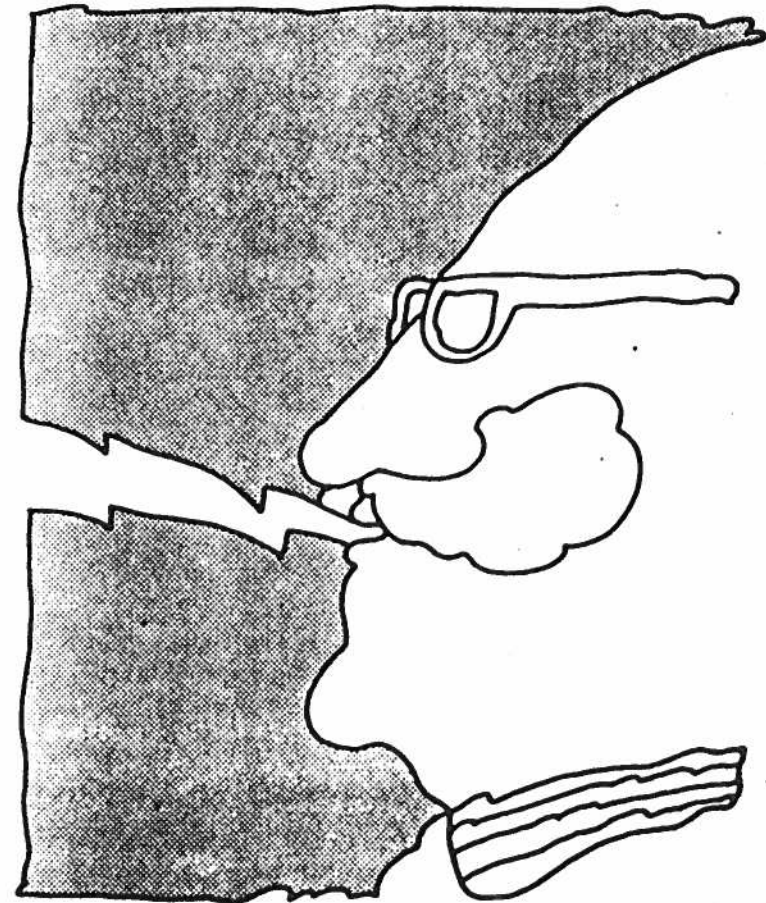
Double sideband emission means an emission in which both upper and lower sidebands are transmitted. The carrier, or a portion of the carrier, may also be present in the emission.

Station address means the place where the station license is kept or posted (see CB Rule 34), where the station records are kept (see CB Rules 34 and 44), and where the primary fixed transmitter (if any) is operated.

Station authorization means a CB temporary permit or a CB license or special temporary authority issued by the FCC.

Subaudible tone means any tone or combination of tones having only frequencies below 150 Hertz.

Voice paging means directing a message to a particular CB receiver (or receivers) solely for the purpose of transmitting a particular communication to that receiver (or receivers).



Procedure for Determining Maximum Antenna Height If You're Near an Airport

If a licensee plans to erect an antenna higher than 20 feet above the ground, he or she should follow the procedure set forth in this bulletin to comply with FCC and FAA rules regarding hazards to aircraft.

This method requires the licensee to know

- (1) the elevation above mean sea level of the antenna site.
- (2) the elevation above mean sea level of the airport.
- (3) the distance in feet between the antenna site and the nearest point of the airport runway.

These three factors are key elements in the procedures outlined on the opposite page and each is necessary in the calculation required. We recommend a topographical map with the scale of 1:62,500.

Topographic maps, indexes and ordering information may be obtained from the following sources:

U.S. Geological Survey
1200 South Eads Street
Arlington, Virginia 22202

U.S. Geological Survey
Building 41
Denver, Colorado 80225

Maps of Alaska may be ordered directly from

Alaska Distribution Branch
U.S. Geological Survey
310 First Avenue
Fairbanks, Alaska 99701

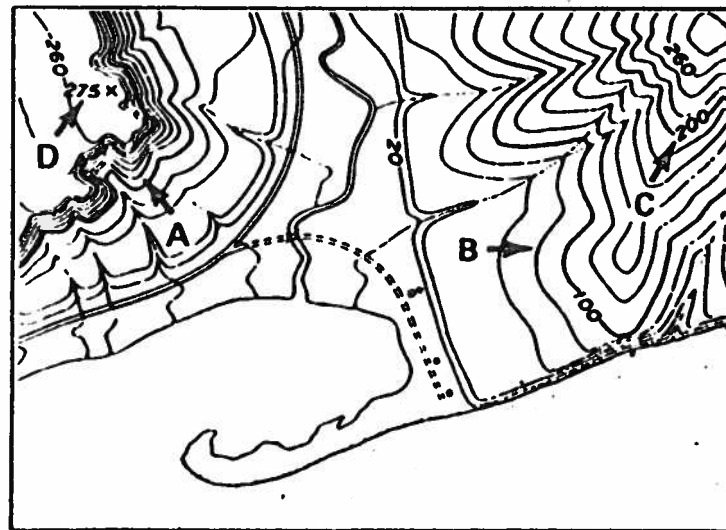
Using the Topographic Map

The principal feature of the topographic map is the contour line. The contour line has no counterpart in nature, but this device has proved an effective means for representing the third dimension on flat paper. To understand the use of the contour line, think of it as an imaginary line on the ground which takes any shape necessary to maintain a constant elevation above sea level.

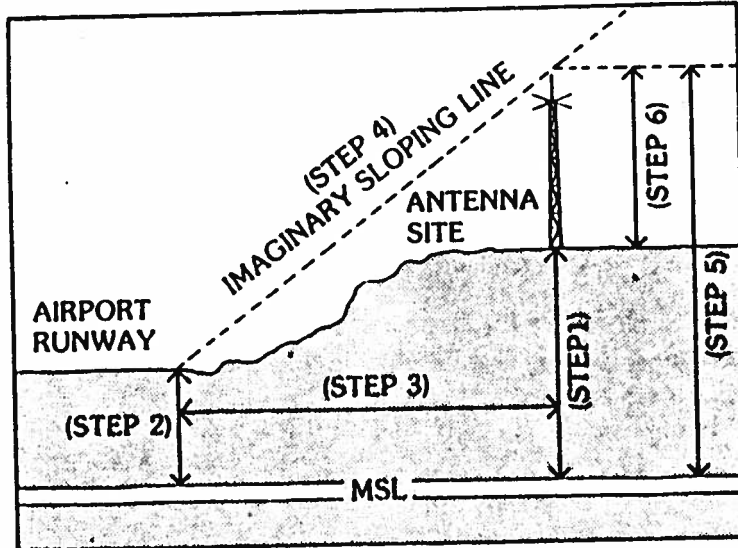
In the illustration below, contour lines at point (A) indicate a steep vertical incline. The contour lines at point (B) indicate a more gradual slope. Figures appearing at points (C) and (D) give the elevations of the lines above sea level.

Learning to visualize contour lines as hills and valleys takes practice and imagination; but once this ability is acquired, the topographic map can become a useful tool for measuring and comparing elevations between terrain features.

A more complete discussion of the use of topographic maps and map symbols can be obtained from the Department of Interior, Geological Survey Bulletin, "Topographic Maps".



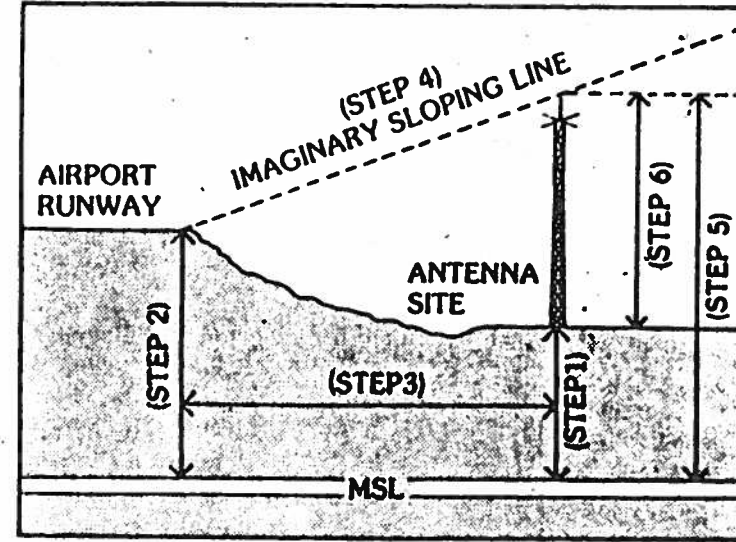
Example A



Elevation of antenna site above elevation of runway.

1	Elevation of Antenna Site	50 feet AMSL
2	Elevation of Nearest Airport	40 feet AMSL
3	Distance to Nearest Runway	4,000 feet
4	Max. allowable antenna height above airport runway (Step 3) $4,000 \text{ ft.} + 100 =$	40 feet
5	Max. allowable antenna height above mean sea level (Step 2) $40 \text{ ft.} +$ (Step 4) $40 \text{ ft.} =$	80 feet AMSL
6	Max. allowable antenna height above ground level (Step 5) $80 \text{ ft.} -$ (Step 1) $50 \text{ ft.} =$	30 feet AGL

Example B



Elevation of antenna site below elevation of runway.

1	Elevation of Antenna Site	40 feet AMSL
2	Elevation of Nearest Airport	50 feet AMSL
3	Distance to Nearest Runway	4,000 feet
4	Max. allowable antenna height above airport runway (Step 3) $4,000 \text{ ft.} + 100 =$	40 feet
5	Max. allowable antenna height above mean sea level (Step 2) $50 \text{ ft.} +$ (Step 4) $40 \text{ ft.} =$	90 feet
6	Max. allowable antenna height above ground level (Step 5) $90 \text{ ft.} -$ (Step 1) $40 \text{ ft.} =$	50 feet AGL

- 1** Using your topographic map, determine the location of your proposed antenna site and the elevation of this site above mean sea level. This elevation is indicated adjacent to each contour line on the map. Enter this figure in the first box for reference.

Elevation of Antenna Site

- 2** Next, determine the elevation of the airport runway nearest the proposed antenna site. If the location of the runway is not clear, or as a cross-check, call the operator of the airport to obtain this information. Enter this figure in the second box for reference.

Elevation of Airport

- 3** Using the scale provided on your map, measure the distance between the proposed antenna site and the nearest point of the runway. This figure should be indicated in total number of feet. Enter this figure in the box provided.

Distance to Nearest Runway

- 4** Next, determine the maximum allowable antenna height above the nearest airport. This is accomplished by dividing the distance found in Step 3 by the figure of 100. Enter this figure in the box provided.

Max. allowable height
above nearest airport

- 5** Determine the maximum allowable height of the antenna installation above mean sea level. This is done by adding the

height determined in Step 2. and Step 4. Enter this figure in the box provided.

Max. allowable height
above mean sea level

- 6** Determine the maximum allowable height of the antenna installation above ground level. This is the maximum vertical distance from the top-most point of the antenna installation above the ground level. This is done by subtracting the elevation of the antenna site (determined in Step 1) from the maximum allowable height of the antenna installation above mean sea level (determined in Step 5). NOTE: In no case may the antenna exceed 60 feet above ground level. Nor need it be less than 20 feet.

Max. allowable antenna
height above ground level

Figure
Here:

CB Problem Checklist

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Trouble Signs

- No signals received or
- No meter readings on "Transmit"

Probable Cause

- CB set not getting power.

Remedy

- Check to see if set is properly plugged-in or turned on.
- Check wiring from power-pac or power battery to CB set.
- If no problems are found here, check with your FCC licensed service technician.

TRANSMIT PROBLEMS

- Output power meter reads lower than normal.

- CB set not receiving enough electrical power.

- Check to see if set is properly plugged in or turned on. Check wiring from power-pac or power battery to CB set. If OK, see next items.

- Antenna or feed-line problems.

- Check antenna match with a Standard Wave Ratio (SWR) meter, if available. If OK, see next item.

- Internal malfunction.

- Call service technician.

- Power meter reads higher than normal.

- Antenna or feed-line problems.

- Check antenna match with a SWR meter.

- Internal malfunction.

- Call service technician.

- Power meter readings fluctuates when transmitter is not modulated.

- CB set not receiving steady electrical power.

- Check to see if set is properly plugged-in or turned on. Check wiring from power-pac or power battery to CB set. If OK, see next item.

Trouble Signs

TRANSMIT PROBLEMS (Continued)

- Reports of low signal strength.

- Loose antenna or feed-line connection.

- Check antenna match with a SWR meter. If OK, it is probably an internal malfunction and you should call your service technician.

- Internal malfunction.

- If a mobile unit, move to a better location. If a base station, check your antenna.

- If transmitter meter has a normal reading, it is probably due to poor location of station.

- If transmitter meter reading is NOT normal, it could be due to CB set not receiving enough electrical power or an antenna problem.

- Check to see if set is properly plugged-in. Check wiring from power-pac or power battery. If OK, it is probably an internal malfunction and you should call your service tech.

- Reports of no modulation or intermittent modulation.

- Microphone cord frayed or broken or defective microphone.

- Replace or repair microphone or cord. If the microphone is wired to the inside of the set, call your service technician. Call service technician.

- Internal malfunction.

- Move closer to microphone.

- Reports of low modulation.

- Distance from microphone too far.

- Readjust power mike.

- Power mike adjustment too low.

- Call service technician.

- Internal malfunction.

- Reports of high-modulation (Over-Modulation).

- Too close to microphone or voice level too high.

- Move away from microphone. (Recommended distance is 3" under ideal conditions.) Or drop voice level.

- Power mike adjusted too high.

- Readjust power mike.

- Internal malfunction.

- Call service technician.

- Reports of "splatter"

- Same as items listed under "Over-Modulation."

- Same as items listed under "Over-Modulation."

998 CB Problem Checklist (Cont'd)

Trouble Signs

RECEIVE PROBLEMS

Receiver meter consistently reads low.

Meter reads high
with local stations only
or

both local and distant stations

Low signals are not loud enough.

Signals are too loud and adjustment of volume control does not help.

ANTENNA MATCH PROBLEMS

If SWR is above 2:1

NOTE: A SWR measurement of 2:1 or less is an indication that your system is operating properly.

Probable Cause

Defective antenna or coax.

Internal malfunction.

Other CB transmitter(s) closeby
or

an internal malfunction.

Squelch control improperly adjusted.

External speaker wiring frayed or broken.

Internal malfunction.

Nearby CB transmitters.
or

Internal malfunction.

Antenna not properly installed.

Cable or antenna connectors defective or improperly installed.

Remedy

Check antenna match with SWR meter available. If OK, call service technician as it is probably an internal malfunction.

No correction needed — this is a normal situation. or

Call your service representative.

Readjust squelch control.

Repair or replace speaker wiring.

Call service technician.

No correction needed, this is normal.
or

Call service technician.

Check manufacturer's installation instructions.

Check condition of cable and connectors. Repair or replace. If cable/connectors are wired to the inside of the set, call your service technician.

Trouble Signs

TELEVISION INTERFERENCE PROBLEMS

A handbook titled How to Identify and Resolve Radio-TV Interference is available from Consumer Information Center, Pueblo, Colorado 81009 for \$1.50.

Probable Cause

TV Set problem.

CB set problem.

Internal malfunction of either CB or TV set.

Remedy

Install high-pass filter between antenna and back of set.

Install low-pass filter between antenna and back of transmitter.

Call service technician. Refer technician to TVI Handbook for assistance in resolving interference problem.

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