



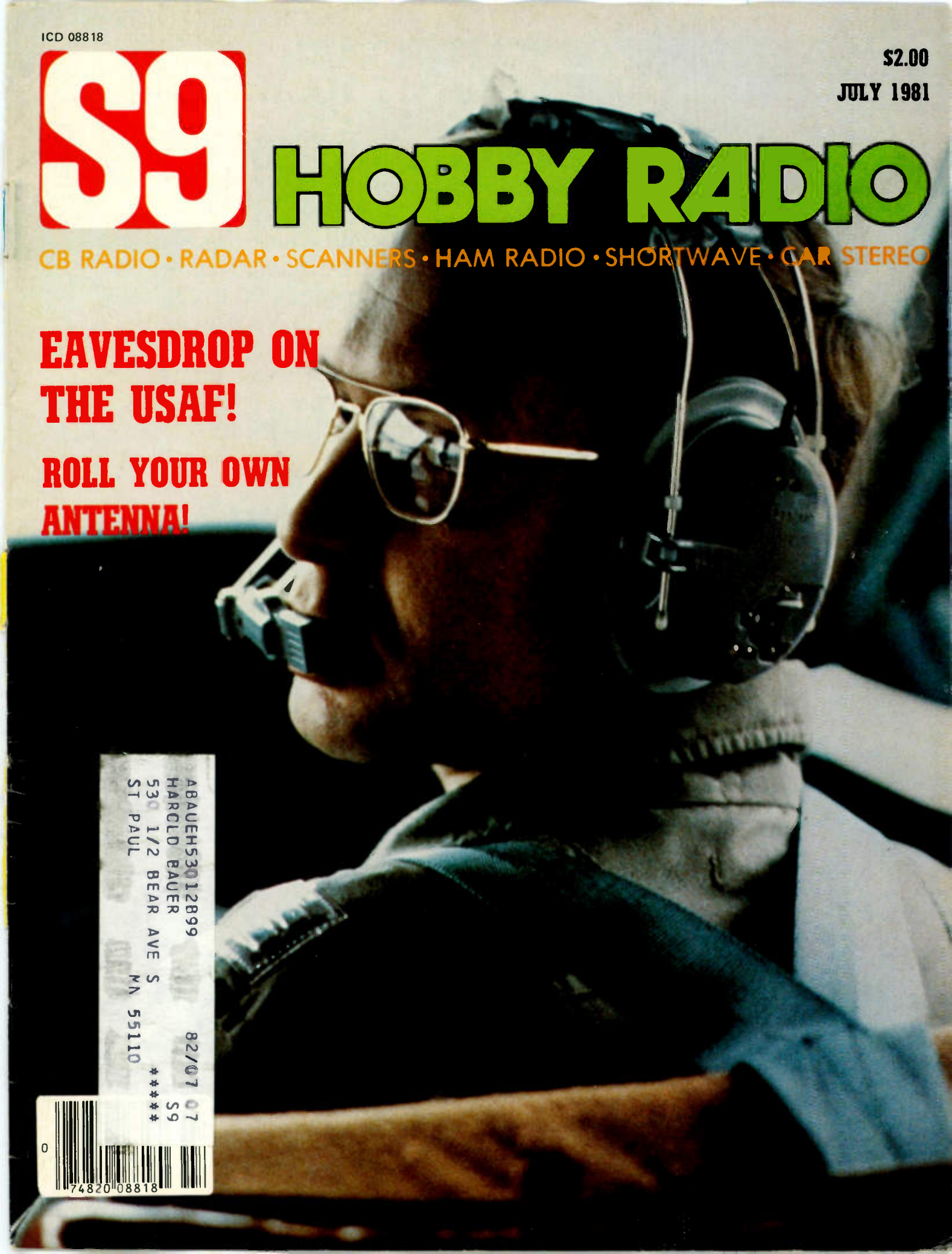
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THE USAF!**

**ROLL YOUR OWN
ANTENNA!**

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formula-1™

the 1981

the antenna specialists co. presents the latest advance in high-performance antennas for professional CB communications ...and major support for REACT*

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Cover photo courtesy of U.S. Air Force

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

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16' Omni-directional

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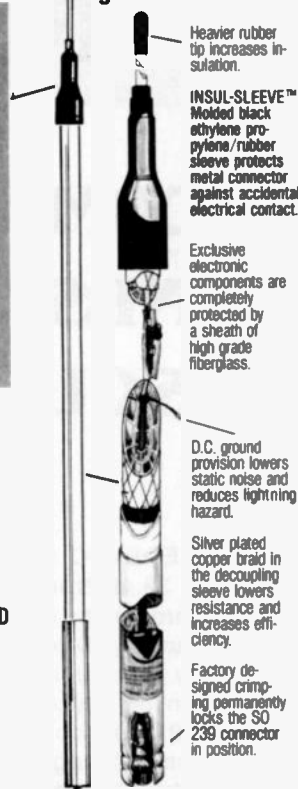
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MILITARY RADIO ★ ★

COMMUNICATIONS ★ ★

**A COMMUNICATION RECEIVER
TUNES YOU IN ON AIR FORCE 1,
RESCUES, & LOTS MORE!**

SAM MEDEVAC 60167 position report 39.48 North 05.59 East" crackled through the headphones that night of January 20th, 1981. I was sitting at my communications receiver listening in on history as I heard a USAF DC-9 *Nightingale* hospital aircraft communicating with a ground station in the 6 MHz band. This wasn't just any DC-9 Medevac flying hospital craft, this was the one which had just left Algeria and was on its way to West Germany. It was bringing 52 Americans away from more than a year in the hands of Iranian terrorists who had kidnapped them.

I was not the only one who heard that flight, I was accompanied by many people who have realized that the intelligent use of communications receivers and scanners opens the way to the witnessing of headlines, history—or whatever you want to call it—while they are being made. It's the exciting realization that a pair of headphones or a *speaker* can instantly transport you across town to sit in the front seat of a police squad car or a federal agency stakeout; it can also

easily place you in the cockpit of an Air Force B-52 or rescue aircraft on the other side of the world! Generally speaking, it's more faster, simpler, less expensive, safer, and frequently more informative than even being there in person.

Last year S9 ran basic information on tuning some of the frequencies used for international military aeronautical communications ("Eavesdrop On: The USAF's Worldwide Communications," by Paul Vogt, June 1980). Vogt's story proved popular with our readers, bringing in requests for additional and more highly detailed information of the same type, and when word started getting around that some radio hobbyists were tuned in on lots of hostage-related communications, it seemed that all the more people wanted to know additional information. In actual fact, astute shortwave monitors throughout the world had their ears tuned to *Operation Bluelight*, the ill-fated hostage rescue mission, before they fully realized exactly what it was they were hearing! For sure, monitors knew *something* "big" was

taking place!

So, further to Paul Vogt's great "starter" feature, I am presenting for your use *lots* more information on how you can be tuned in on so many of the things taking place around the world which seem to eventually end up as David Brinkley's lead story on the *NBC Nightly News* or are the topics of examination of ABC-TV's *Nightline*. Now you've got more frequencies, ground station identifications/locations, times of scheduled broadcasts, transmission modes, monitoring hours for various frequencies, comments, etc. And, by way of giving you the best possible handle on this data, a few words of explanation seem to be in order.

**THE USAF GROUND
STATION NETWORK**

One of the world's largest long-range aeronautical voice communications networks consists of ground stations operated by the U.S. Air Force. These SSB stations (USB only) communicate with aircraft of all branches of the Dept. of Defense (Air Force, Ar-



**BY TOM KNEITEL,
S9'S EDITOR**

my, Navy, Marines), and in addition they communicate with Allied Forces military aircraft at times. Diplomatic missions and flights carrying certain very high level government officials also communicate via this large radio system.

Communications on these frequencies include position reports, flight plans, coded messages, phone patches, and various other air traffic and tactical information. Ground stations monitor the frequencies I have listed, during the hours shown, although they may instruct the pilot to switch over to another frequency (including some not included in this listing) after initial contact is made.

At certain times each hour, some of the ground stations, transmit short scheduled broadcasts, some of these are coded, although those addressed to aircraft of the Military Airlift Command are generally in plain language. These MAC plain language broadcasts are preceded by the general MAC callsign "CAPSULE."

My listing shows the most often encountered frequencies stations to be

TABLE I - SOME TACTICAL IDENTIFIERS GENERAL CALLSIGNS

IDENTIFIERS:

BEHAVE
CAPE RADIO
DISCARD
FORMAT
HILDA
PHANTOM
RAYMOND 6
RAYMOND 7
RAYMOND 9
RAYMOND 10
RAYMOND 14
RAYMOND 15
RAYMOND 17
RAYMOND 19
RAYMOND 21
RAYMOND 22
RAYMOND 24
RAYMOND 25
RAYMOND 26
RAYMOND 27
RAYMOND 28
TONIGHT

GENERAL CALLSIGNS:

BEER CAN

CAPSULE
FOXTROT

MAINSAIL

SKY KING

Alaskan MAC Operations Center
Eastern Test Range, Fla.
22nd AF MAC Operations Center
21st AF MAC Operations Center
MAC Command
European MAC Operations Center
TAC, George AFB, Calif.
TAC, Cannon AFB, N.M.
S. American MAC Opns. Center
TAC, Hurlburt AFB, Fla.
TAC, Holloman AFB, Fla.
TAC, Homestead AFB, Fla.
TAC, Moody AFB, Ga.
TAC, MacDill AFB, Fla.
TAC, Myrtle Beach AFB, SC
TAC, Nellis AFB, Nevada
TAC, Tinker AFB, Okla.
TAC, Seymour Johnson AFB, NC
TAC, Shaw AFB, SC
TAC, Mountain Home AFB, Idaho
TAC, Bergstrom AFB, Texas
Pacific MAC Operations Ctr. (Hawaii)

Announcing transmission of 1-way broadcast of radio propagation data to follow.
General ground/air callsign meaning "All MAC Aircraft."
Announcing a coded message broadcast to follow for certain aircraft
General air/ground callsign meaning "Any USAF Command Control Network Ground Station"
Used on Strategic Air Command (SAC) frequencies to alert aircraft commanders that a coded 1-way transmission is to follow. Transmissions are usually intended for only one or a selected few aircraft as opposed to all who can copy it. For security purposes, aircraft to whom such messages are addressed are instructed not to reply ("Do not answer").

heard using long-range communications. These frequencies also produce signals from ground stations which I do not list. For instance, DOVER COMMAND POST, at Dover AFB in Delaware, has been heard on a few of these frequencies communicating with aircraft which are scheduled to arrive at that facility.

Other specific stations not shown include those used for communications with aircraft of the Strategic Air Command, although I have included some of the most active frequencies used by the SAC. Specific stations are not listed because the coded tactical identification names of the stations seem to constantly change, and the majority of messages sent are in coded form (although not scrambled, or as called in military circles "secure").

MAINSAIL

Part of the worldwide USAF HF/SSB operations is the Command Control Network, code named MAINSAIL. This network is comprised of 14 widely scattered ground stations, each responsible for certain communications with aircraft flying within clearly defined zones. These numbered zones, together with their areas and ground station control points are explained in Table I. Aircraft flying within these zones wishing to communicate with the Command Control Network can use the general callsign "MAINSAIL" and any ground station hearing the call will respond and assign the aircraft primary and secondary operating frequencies. MAINSAIL stations can easily provide phone patch service and message relays to and from military facilities and command posts around the world, as well as air traffic communications.

While SAC and TAC ground bases tend to use coded tactical code words to identify themselves, surprisingly most of the stations you can hear simply identify themselves by the actual name of their facility (such as SCOTT, ANDREWS, etc.). It does seem that at least some of the TAC bases using the RAYMOND series of callsigns (see Table II) are being monitored via phone patches relayed over transmitters of the Command Control Network, as opposed to via direct transmission from their own sites. Aircraft appear to use a rather wide variety of tactical and non-tactical identification.

RADIO PROPAGATION

When attempting to communicate over long distances one must take into account the peculiarities of radio propagation and the optimum frequencies to use to cover certain distances. Aircrews are suggested to use a frequency guide similar to that shown in Table III.

While I have listed the local times required in a standard format, military communications are always referred to in so-called ZULU TIME, otherwise called known as GMT, Universal Time, or Coordinated Universal Time. To conform ZULU TIME to the time zones in most of North America, add 5 hours for Eastern Standard Time, 6 hours for

TABLE II - "MAINSAIL" THE USAF COMMAND CONTROL NETWORK		
ZONE #	GROUND STATION	GENERAL AREAS
1	Clark AFB, Philippines	Southeast Asia, including southern China.
2	Andersen AFB, Guam	Territory of the Pacific Islands, Australia.
3	Yokota Air Base, Japan	Japan, northeast China, Mongolia, central Siberia.
4	Hickam AFB, Hawaii	Central Pacific south of Hawaii; New Zealand
5	Elmendorf AFB, Alaska	Alaska, northwest Canada, eastern Siberia, north-central Pacific
6	McClellan AFB, Calif.	Pacific ocean from Canada to below Mexico, from 1,000 to 1,500 miles off shore
7	Scott AFB, Illinois	Continental U.S., Canada (except NWT and some arctic areas)
8	Albrook Field, Panama	Central/South America and Caribbean; Atlantic and Pacific adjacent waters
9	MacDill AFB, Fla.	Western North Atlantic; Gulf of Mexico
10	Thule Air Base, Greenland	Greenland, arctic areas of eastern Canada
11	Croughton Field, England	Eastern North Atlantic, Iceland, Scandinavia, most of Europe except Spain/Portugal and Mediterranean nations. Includes all of European USSR
12	Lajes Field, Azores	East-central Atlantic, Spain/Portugal, southern France, northwest Africa, western Mediterranean
13	Ascension Aux. AF Fid,	Africa (south of Algeria/Lybia/Egypt), Yemen, southeastern Atlantic; Indian Ocean
14	Incirlik Fid., Turkey	Italy, southeast Europe, Middle East, Arabia, eastern Mediterranean, Egypt, Lybia, Turkey, Iran and east to parts of India and western China



High angle side view of Air Force One, VC-137 in flight over the home of the first U.S. President.

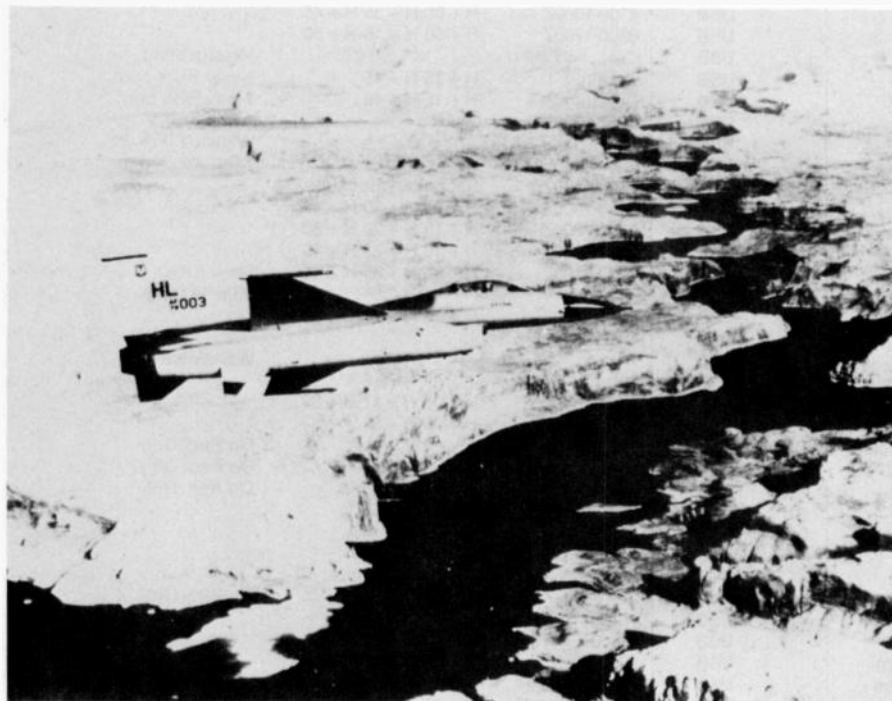
TABLE III - FREQUENCY SELECTION GUIDE

LOCAL TIME AT
GROUND STATION

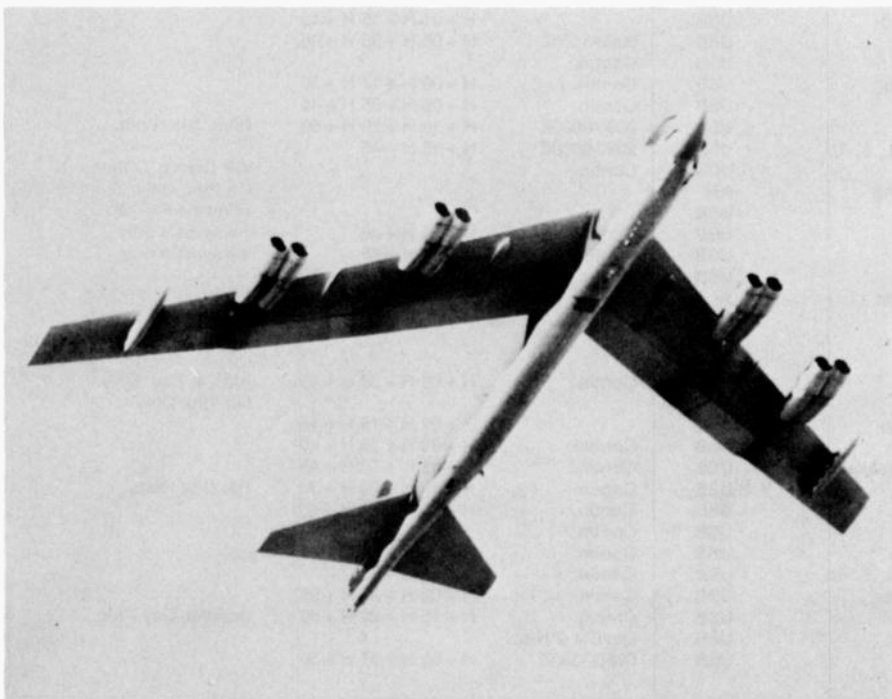
DIST. FROM AIRCRAFT TO GROUND STATION (STATUTE MILES)

	250-850 MI.	850-1725 MI.	1725+ MI.
Midnite	3-4.7 MHz.	6.7-6.9 MHz.	6.7-11.1 MHz.
4 AM	3-4.7 MHz.	4.7-6.7 MHz.	6.7-8.9 MHz.
8 AM	3-6.7 MHz.	6.7-11.1 MHz.	11.1-18 MHz.
12 Noon	4.7-6.7 MHz.	8.9-13.2 MHz.	13.2-18 MHz.
4 PM	4.7-6.7 MHz.	8.9-13.2 MHz.	13.2-18 MHz.
8 PM	3-6.7 MHz.	6.7-11.1 MHz.	11.1-18 MHz.

(When closer than 250 statute miles, any frequency can be used.)



F-16A's at Hill AFB.



Underneath view of a B-52H in flight equipped with an electro-optical viewing system (EVS) in the nose.

Central Standard Time, 7 hours for Mountain Standard Time, and 8 hours for Pacific Standard Time. So, a military time of 0400 Z would translate into 0900 EST—or 9 AM; 1500 Z would be 2000 EST, better known as 8 PM EST. During the time of the year when Daylight Savings Time is in effect, add only 4 hours for EST zones, 5 for CST, etc.

Let me say that there are rare times when radioteletype is used for specific messages on these frequencies (100 WPM, 850 Hz FSK, 2 kHz center frequency—space 2425 Hz, Mark 1575 Hz) so don't wonder what's up if you encounter it there. Some ground stations can offer voice scrambler communications on request for specific messages or phone patches, however most of the transmissions to be monitored are in "clear" transmission (not scrambled).

While VIP's are welcome to place their phone patches through any USAF ground station, the communications facilities at Andrews AFB, Md., are available exclusively for VIP communications and therefore are frequently in use for communications with *Air Force 1* and *Air Force 2*, the aircraft used for the President and Vice President. Other high level government officials have also been monitored passing phone patch traffic through the Andrews AFB ground facility. Andrews is definitely where the action is when major international events are in progress. Monitors who were tuned to one such frequency while former President Carter was winging to Rhein-Mein Airport to greet the newly returned Americans last January were no less surprised than Jimmy Carter himself was when he received a rather cool reception from some of the returnees. It had been the topic of a detailed discussion which went out via a phone patch which could be easily monitored by anyone with a communications receiver! The news media reported the cool reception as having been unanticipated by Mr. Carter. No way!

THE KEY

Those are some of the keys to using the lengthy listing in our TABLE IV. In that you will note that the scheduled broadcasts are listed as "H + 15," "H + 25," etc. This indicates the number of minutes past each hour the transmissions are broadcast; naturally this would take place only within the station's watch hours on each specific frequency.

I have also included some additional frequencies of interest which are used exclusively by and for specific military services—an extra which you should find useful I have found 5.696 kHz (USB) to be especially interesting in the evening as it is quite active and seems

to be used by numerous in-flight Coast Guard aircraft and helicopters communicating with Coast Guard Air Bases.

Fortified with the information I have provided you should now easily be able to embark upon your monitoring of

these exciting frequencies. Undoubtedly you will encounter additional frequencies, tactical identifiers, and ground stations, along with some of the interesting communications to which you will be privy. I think you'll enjoy every minute of it!

TABLE IV - UNITED STATES AIR FORCE GROUND NETWORK

MHz	ID/Location	Mode	Watch Hours	Scheduled Broadcasts	Notes
3.060	RAYMOND 7, Cannon AFB, Clovis, NM	USB	0100-1300Z		Tact. Air. Comm.
3.067	CROUGHTON, Croughton, England	USB	2300-0500Z	H + 00 H + 17 H + 30	
3.081	LAJES, Lajes AFB, Azores	USB	2100-1000Z	H + 05 H + 35 H + 45	
3.144	HICKAM, Hickam AFB, Hawaii	USB	0600-1700Z	H + 00 H + 16 H + 30	
4.082	USAF Pacific Test Range	USB			Missile tests
4.590	BEER CAN, Bolling AFB, DC	USB	Contin.	H + 15 H + 45	1-way BC's only
	BEER CAN, Scott AFB, Ill.	USB	Contin.	H + 15 H + 45	1-way BCs only
4.721	ANDREWS, Andrews AFB, Md.	USB	2400-1200Z		
4.725	Strategic Air Command	USB			Wideband (Fre. V)
4.742	RAYMOND 22, Nellis AFB, Nevada	USB			Tact. Air Comm.
	LORING, Loring AFB, Me.	USB	2100-1100Z	Secondary/Backup	
4.746	LAJES, Lajes AFB, Azores	USB	2100-1000Z	H + 05 H + 35 H + 45	
	MACDILL, MacDill AFB, Fla.	USB	0000-0900Z	H + 15 H + 20 H + 50	
	McCLELLAN, McClellan AFB, Ca.	USB	0400-1600Z	H + 10 H + 32 H + 40	
4.747	YOKOTA, Yokota Air Base, Japan	USB	1000-2100Z	H + 05 H + 35 H + 46	
5.080	USAF Pacific Test Range	USB			Missile tests
5.688	MACDILL, MacDill AFB, Fla.	USB	0000-0900Z	H + 15 H + 20 H + 50	
5.680	Search/Rescue Coordination Freq.	USB	Contin.		Worldwide
5.700	Strategic Air Command	USB			
5.703	MAINSAIL (Zones 9/11/12/14)	USB	Nites + 2 Hrs.		
	CROUGHTON, Croughton, England	USB	2100-0800Z	H + 00 H + 17 H + 30	
5.710	ALBROOK, Albbrook Fld., Panama	USB	0200-1200Z	H + 25 H + 55	
	ELMENDORF, Elmendorf AFB, Alaska	AM			On Req. Only
	THULE, Thule Air Base, Greenland	AM			On Req. Only
	YOKOTA, Yokota Air Base, Japan	AM			On Req. Only
6.683	ALBROOK, Albbrook Fld., Panama	USB	0000-1400Z	H + 25 H + 55	
6.727	MAINSAIL (Zones 6/7/9)	USB	Nites + 2 Hrs.		
	SCOTT, Scott AFB, Ill.	USB	0200-1400Z	None	
6.730	RAYMOND 7, Cannon AFB, NM	USB	Alt. Day/Nite	Tact. Air Comm.	
	ALBROOK, Albbrook Fld., Panama	AM			On Req. Only
6.738	MAINSAIL (Zones 2/3/4/5/6/10)	USB	Nites + 2 Hrs.		
	MAINSAIL (Zones 1/13/14)	USB	Contin.		
	ANDERSEN, Andersen AFB, Guam	USB	0700-2200Z	H + 20 H + 30 H + 50	
	CLARK, Clark Air Base, Philippines	USB	1200-2200Z	H + 02 H + 25 H + 55	
	ELMENDORF, Elmendorf AFB, Alaska	USB	Contin.	H + 15 H + 30 H + 45	
	HICKAM, Hickam AFB, Hawaii	USB	0400-1900Z	H + 00 H + 16 H + 30	
	INCIRLIK, Incirlik Fld., Turkey	USB	Contin.	H + 10 H + 31 H + 40	
	McCLELLAN, McClellan AFB, Ca.	USB	0400-1600Z	H + 10 H + 32 H + 40	
	THULE, Thule Air Base, Greenland	USB		H + 01 H + 15 H + 45	
	YOKOTA, Yokota Air Base, Japan	USB	0900-3400Z	H + 05 H + 35 H + 46	
6.750	MAINSAIL (Zones 9/11/12/24)	USB	Contin.		
	CROUGHTON, Croughton, England	USB	Contin.	H + 00 H + 17 H + 30	
	LAJES, Lajes Fld., Azores	USB	Contin.	H + 05 H + 35 H + 45	
	MACDILL, MacDill AFB, Fla.	USB	0000-0900Z	H + 15 H + 20 H + 50	Prim. Nite Freq.
6.753	ASCENSION, Ascension Aux. Fld., S. Atl.	USB	2000-0800Z	H + 15 H + 45	
6.756	ANDREWS, Andrews AFB, MD.	USB	Contin.		VIP Comm. Only
6.757	CROUGHTON, Croughton, England	AM			On Req. Only
6.761	Strategic Air Command	USB			Wideband (Fre. Q)
7.540	BEER CAN, Bolling AFB, DC	USB	Contin.	H + 15 H + 45	1-way BCs only
	BEER CAN, Scott AFB, DC	USB	Contin.	H + 15 H + 45	1-way BCs only
8.964	HICKAM, Hickam AFB, Hawaii	USB	Contin.	H + 00 H + 16 H + 30	
8.967	ANDERSEN, Andersen AFB, Guam	A-M/USB	Contin.	H + 00 H + 20 H + 50	AM On Req. Only
	HICKAM, Hickam AFB, Hawaii	AM			On Req. Only
	LAJES, Lajes Fld., Azores	AM			
	MACDILL, MacDill AFB, Fla.	USB	Contin.	H + 05 H + 35 H + 45	AM On Req. Only
	THULE, Thule Air Base, Greenland	AM			On Req. Only
	YOKOTA, Yokota Air Base, Japan	USB		H + 01 H + 15 H + 45	
8.989	ELMENDORF, Elmendorf AFB, Alaska	USB	Contin.	H + 05 H + 35 H + 46	
	MACDILL, MacDill AFB, Fla.	USB	Contin.	H + 15 H + 30 H + 45	
	McCLELLAN, McClellan AFB, Ca.	USB	Contin.	H + 15 H + 20 H + 50	Pri. Nite Req.
8.993	MAINSAIL (Zones 1/8/13/14)	USB	Contin.	H + 10 H + 32 H + 40	
	ALBROOK, Albbrook Fld., Panama	USB	Contin.	H + 25 H + 55	
	ASCENSION, Ascension Aux. Fld., S. Atl.	USB	Contin.	H + 15 H + 45	
	CLARK, Clark Air Base, Philippines	USB	Contin.	H + 02 H + 25 H + 55	
	MACDILL, MacDill AFB, Fla.	USB	Contin.	H + 15 H + 20 H + 50	Second. Day Freq.
9.011	MAINSAIL (Zones 9/11/12/14)	USB	Days + 2 Hrs.		
	CROUGHTON, England	USB	0500-2300Z	H + 00 H + 17 H + 30	

9.014	MAINSAIL (Zones 6/7/9) LORING, Loring AFB, Me. SCOTT, Scott AFB, Ill. RAYMOND 7, Cannon AFB, NM	USB USB USB USB	Contln. 2200-1200Z Contln. 1300-0100Z	none	Second./Backup Tact. Air Command VIP Communications Only Widwide (Fre. R) Backup Freq. for Ascension
9.018	ANDREWS, Andrews AFB, Md.	USB	Contln.		
9.027	Strategic Air Command	USB			
10.780	USAF Eastern Test Range (Ascension, Antigua, Cape Canaveral, Mahi)	USB			
11.176	MAINSAIL (Zones 1/9/11/12/13/14) ALBROOK, Albrook Fld., Panama ANDERSEN, Andersen AFB, Guam ASCENSION, Ascension Aux. Fld., S. Atl. CLARK, Clark Air Base, Philippines CROUGHTON, Croughton, England ELMENDORF, Elmendorf, Alaska INCIRLIK, Incirlik Fld., Turkey	USB USB USB USB USB USB USB USB	Contln. Contln. Contln. 1800-1000Z 0900-2200Z Contln. Contln. Contln.	H + 25 H + 55 H + 00 H + 20 H + 50 H + 15 H + 45 H + 02 H + 25 H + 55 H + 00 H + 17 H + 30 H + 15 H + 30 H + 45 H + 10 H + 31 H + 40 H + 00 H + 16 H + 30	
11.179	HICKAM, Hickam AFB, Hawaii MACDILL, MacDill AFB, Fla.	USB USB	Contln. 0900-2400Z	H + 00 H + 16 H + 30 H + 15 H + 20 H + 50	Day Freq.
11.182	MAINSAIL (Zones 6/7/9) SCOTT, Scott AFB, Ill.	USB USB	Contln. Contln.	none	
11.226	CLARK, Clark Fld., Philippines ELMENDORF, Elmendorf AFB, Alaska LAJES, Lajes Fld., Azores	USB AM USB	2200-0900Z 1000-2100Z	H + 02 H + 25 H + 55 H + 05 H + 35 H + 45	On Req. Only On Req. Only
11.228	THULE, Thule Air Base, Greenland	AM			On Req. Only
11.236	YOKOTA, Yokota Air Base, Japan	USB	Contln.	H + 05 H + 35 H + 46	
11.239	McCLELLAN, McClellan AFB, Cal.	USB	Contln.	H + 10 H + 32 H + 40	
11.243	Strategic Air Command	USB			Widwide (Freq. A-1) Primary Day Freq.
11.246	MACDILL, MacDill AFB, Fla.	USB	Contln.	H + 15 H + 20 H + 50	
13.201	MAINSAIL (Zones 1,2,3,4,5,6,9,10,11,12,14) ANDERSEN, Andersen AFB, Guam CLARK, Clark Fld., Philippines CROUGHTON, Croughton, England ELMENDORF, Elmendorf AFB, Alaska HICKAM, Hickam AFB, Hawaii LORING, Loring AFB, Me. THULE, Thule Air Base, Greenland YOKOTA, Yokota Air Base, Japan	USB USB USB USB USB USB USB USB USB	Days + 2 Hrs. Contln. Contln. Contln. 0800-2100Z Contln. 1700-0600Z 1100-2100Z	H + 00 H + 20 H + 50 H + 02 H + 25 H + 55 H + 00 H + 17 H + 30 H + 15 H + 30 H + 45 H + 00 H + 16 H + 30 H + 01 H + 15 H + 45 H + 05 H + 35 H + 46	Secon./Backup
13.210	MACDILL, MacDill AFB, Fla.	AM	2100-1000Z	H + 05 H + 35 H + 46	On Req. Only
13.215	ANDERSEN, Andersen AFB, Guam HICKAM, Hickam AFB, Hawaii INCIRLIK, Incirlik Fld., Turkey YOKOTA, Yokota Air Base, Japan	AM AM AM USB	Contln.	H + 10 H + 31 H + 40	On Req. Only On Req. Only On Req. Only Widwide (Freq. S)
13.241	Strategic Air Command	USB			
13.244	MAINSAIL (Zones 8/9/11/12/23) ASCENSION, Ascension Aux. Fld., S. Atl. LAJES, Lajes Fld., Azores MACDILL, MacDill AFB, Fla.	USB USB USB USB	Days + 2 Hrs. 1000-1800Z 1000-2100Z 0900-2400Z	H + 15 H + 45 H + 05 H + 35 H + 45 H + 15 H + 20 H + 50	Second. Day Freq. VIP Command Only 1-way BCs only 1-way BCs only
13.247	ANDREWS, Andrews AFB, Md.	USB	1200-2400Z		
13.993	BEER CAN, Bolling AFB, DC BEER CAN, Scott AFB, Ill.	USB USB	Contln. Contln.	H + 15 H + 45 H + 15 H + 45	1-way BCs only 1-way BCs only
15.015	MAINSAIL (Zones 1/6/7/9/11/12/13/14) ALBROOK, Albrook Fld., Panama ASCENSION, Ascension Aux. Fld., S. Atl. INCIRLIK, Incirlik Fla., Turkey LORING, Loring AFB, Me. SCOTT, Scott AFB, Ill.	USB AM/ USB USB USB USB USB	Days + 2 Hrs. 1200-0200Z 0800-2000Z Contln. 1200-2200Z 1400-0200Z 1600-0400Z	H + 25 H + 55 H + 15 H + 45 H + 10 H + 40 none H + 10 H + 32 H + 40	AM on Req. only Sec./Backup
15.031	McCLELLAN, McClellan AFB, Ca.	USB			On Req. Only
15.036	CROUGHTON, Croughton, England	AM			Worldwide (Freq. M)
15.041	Strategic Air Command	USB			Worldwide
15.091	Tactical Air Command	USB			Worldwide
17.975	Strategic Air Command	USB			
18.002	MAINSAIL (Zones 1,2,3,4,5,6,13,14) ANDERSEN, Andersen AFB, Guam CLARK, Clark Fld., Philippines HICKAM, Hickam AFB, Hawaii McCLELLAN, McClellan AFB, Cal. YOKOTA, Yokota Air Base, Japan	USB USB USB USB USB USB	Days + 2 Hrs. 2200-0700Z 2200-1200Z 1900-0400Z 1600-0900Z 0000-0900Z 1400-2400Z	H + 00 H + 20 H + 50 H + 02 H + 25 H + 55 H + 00 H + 16 H + 30 H + 10 H + 32 H + 40 H + 05 H + 35 H + 46 H + 15 H + 20 H + 50	Sec. Day Freq.
18.019	ALBROOK, Albrook Fld., Panama	USB			
20.198	CAPE RADIO, Patrick AFB, Fla.	LSB			
20.390	CAPE RADIO, Patrick AFB, Fla.	USB			Secondary

NORTH AMERICAN AIR DEFENSE (NORAD)

4.873, 6.710, 9.023, 14.895 MHz USB

U.S. NAVY/U.S. MARINE CORPS Aviation

3.109, 3.123, 4.707, 4.711, 5.696, 6.697, 6.723, 8.984, 9.032, 11.191, 11.201, 11.267, 15.054, 23.315 MHz USB

U.S. COAST GUARD Aviation

2.182, 2.702, 3.120, 3.123, 5.692, 8.692, 8.980, 8.984, 11.201, 15.085 MHz USB

CB NEWSWIRE

YOUR CB NEWSPAPER

JULY 1981

CB'ERS SAVE TOBY

A student, an unidentified woman and a number of CB radio users pulled off a freeway miracle. They saved a dog that was lying helpless along an Austin, Texas interstate highway.

And though it was a close call, now they know the dog, a big collie named Toby, is going to live. They're happy, and so is Mary Aynesworth, the dog's owner.

Aynesworth's drama started when she took her 6-year-old Toby to get a shot. He slipped his leash and bolted onto I-35.

UT student Margaret DeFord, walking near the freeway, saw the handsome collie loping along as cars whizzed around him. She called—just as he was hit.

As DeFord ran crying along the shoulder, trying to alert oncoming motorists, Lois Nulty, a REACT

monitor on CB Channel 9, heard that the dog was down on the expressway.

Nulty began asking drivers to try to go around the dog. She also called the Humane Society.

About that time, a young woman parked her car between the dog and traffic.

A Humane Society ambulance took the dog to veterinarian R.O. Stried, who warned Aynesworth that Toby might die.

But Toby is making it, although he is stiff and sore.

Aynesworth has one big regret: The young woman who stopped on the busy expressway to shield Toby disappeared.

"We only know that her name was Melody," said Aynesworth. "I just wish there was some way I could thank her for what she did."

GEORGIA TRUCKER

GETS LIFE

IN CB SLAYING!

A Georgia trucker was sentenced to life imprisonment by Judge William W. Caldwell of Dauphin County, Ga.

The life sentence follows the first-degree murder conviction of Charlie W. Clemmons, 31, of Woodbine, Ga.

At a trial before Caldwell, a jury of six men and six women deliberated 9½ hours before finding Clemmons guilty of first-degree murder in the June 8 shooting of Dale Hershey of Camelot Village, Susquehana Twp. The shooting occurred along Interstate 81 after the two men allegedly had a quarrel on their CB radios.

During the trial, Clemmons testified that he shot Hershey, but said he acted out of fear because he thought Hershey had a gun. Clemmons said his shotgun went off accidentally.

A TRIBUTE TO THE TRUCKERS

By Deacon "T"

To the truckers riding down that super slab, sometime life can get real drab. Then a sweet voice comes in on the two way, to some it makes their day. Some others want to be just left alone, their thoughts are in getting safely home.

When the sun is shining, he likes to see the sights, however, at night, he hates those bright lights.

Them 18 wheelers haul everything from vegetables to furniture and pretty lamps. Fighting that traffic, trying to make a few green stamps, hoping the Smokeys are all at home so they can put the pedal to the metal and m-o-v-e on.

It is no fun driving in the rain, sleet and snow, but Mr. Dispatcher said the load had to go. Without these truckers,

I don't know where this country would be. Up the river without a paddle, Woe is me!

Those guys keep this country moving on wheels, trying to make a living and pay their bills. As the price of fuel continues to climb, it is hard for them to clear a dime. Some may pop a pill to stay awake, "just remember, those perishables can't be late."

Most of them are pretty good Joes, driving them rigs keeps them on their toes.

Hats Off America, from the North, South, East and West. Those truckers are doing their best. They have names from A to Z, hauling all kinds of commodities for you and me.

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

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

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

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AGENTS SEIZE EQUIPMENT

For years, West Akron, Ohio residents have complained of hearing "Carpetbagger," an overpowered operator, when they tuned their televisions to channel 5.

The signals created herringbone patterns on TV screens and supplanted the TV sound with chatter.

Legitimate CB operators complained that "Carpetbagger," transmitting on CB channel 6, denied them access to the channel, proclaiming it was "reserved for blacks."

They complained he transmitted a signal so powerful that it spilled over into adjacent channels from 3 through 10.

The problems may have been solved with the seizure by U.S. marshals of illegal radio equipment at a West Akron home.

Following complaints by area residents and an investigation by Federal Communications Commission technicians from Detroit, the marshals

took the CB gear from the home of Nathan Poole.

Assistant U.S. Attorney William Edwards in Cleveland identified Poole as the operator who used the "handle" or nickname, "Carpetbagger."

Edwards said Poole held a legitimate CB license, KYF-3749.

Seized by the marshals were CB transceivers and other equipment, including a linear amplifier, Edwards said. Charges were pending against Poole, he added.

Edwards said violations by Poole included use of excess power, unauthorized transmission of a continuous signal, whistling on the air, failure to use his call sign, and operating with an antenna too high.

At the same time, marshals also seized equipment from the home of David Mallory of Cleveland, whom Edwards said transmitted with the handle of "Junk Yard Dog." Edwards said Mallory also used a linear amplifier.

Edwards said the investigations would continue.

\$90,000 Awarded

A jury has awarded \$90,000 to the family of a Greenville (S.C.) man killed when a CB antenna he was installing on his garage touched an insulated 7,200 volt Duke Power Co. line.

A man injured in the same accident was awarded \$10,000.

Thadieth Headen, 32, was killed and Luther Wayne Wilson, 34, was injured when the radial bar of the antenna touched the wire at Headen's Greenville home May 7, 1978.

During the trial in U.S. District Court, Duke maintained it met the minimum height requirements of the National Electric Safety Code. But Bob Ariail, attorney for Wilson and Headen's family, argued Duke hadn't complied with other aspects of the code, including one that required electric systems to be designed and installed to reduce hazard to life as much as practical.

One of Ariail's key witnesses, Sam Hillborn, an electrical engineering professor at the University of South Carolina, testified that he believed the high voltage wire did not have to be located where it was.

Hillborn, testifying as an expert witness, also said Duke could have used high voltage insulated drop wires.

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MOBILE CB WHIP?



TRY ROLLING YOUR OWN!

By Marc Stern, KBFS-8072, SSB-OA71

To many people, the antenna is just that "thing" on the roof or the trunk that has something to do with the radio. There's a piece of heavy, thick wire attached to it that's called coax, that runs to the back of the radio. People just seem to take it for granted and don't even care why it's called coaxial cable.

However, the serious CB operator or radio enthusiast realizes the importance and makeup of not only coaxial cable, but also the importance of the antenna itself.

Because we're limited to such low legal output levels—four watts AM and 12 peak to peak for Sideband—it makes a great deal of sense to try and find the best antenna system available. This will enable you to squeeze the maximum signal from your rig. (Imagine having an antenna with a 15 db gain. With this type of

antenna, you're effectively increasing your signal by five times, since every 3 db means you increase your power by 100 percent—four watts to eight, etc.)

Have you ever considered making it yourself? It's not hard to do. Just imagine the feeling of pride and accomplishment when you can tell friends at a coffee break that the antenna at your base or on your mobile is a home-brewed affair. For the serious radio enthusiast this is a good project for a rainy weekend because that's all it should take.

All it takes is a steel rod, a piece of plexiglas rod (or similar non-conductive core material), some 12 gauge solid wire (you can also use 10 gauge), an electric drill, soldering iron and an SO-239 connector. Also some screws and washers, gasket material and solder lugs and a base plate are needed.

What I'll be describing in the following paragraphs is how to make a decent quarter-wave, base-loaded mobile antenna. Believe it or not, you can. It's done by radio enthusiasts all over the world. What you'll be using is a 60-inch radiator (it can even be made from a coat-hanger), with a base coil of the right number of turns of wire. (If you want to make a base antenna, then substitute a piece of aluminum tubing.)

The first order of business is matching the non-conductive rod to the radiator you're using. This is the first place where you'll have to use your drill. You'll have to cut an appropriately sized hole in one end of the non-conductive rod that's about an inch deep. If you don't do this correctly it won't do your temper any good (it didn't do mine any good, just ask the XYL) to find that you've done

everything else properly only to find the coil's top end isn't done correctly.

Once this is done, it's time to turn our attention to actually making the heart of this antenna, the loading coil itself. It's very easy to do, but does require some experimentation.

Before getting to the actual preparation of the coil, one of the other items you're going to need for this antenna is some sort of base plate. It is this to which the SO-239 is attached. You can either make your own base out of a sheet of aluminum bent with two 45-degree opposite bends or you can obtain some pre-cut stock (one of those hideaway antenna bases would serve just as well, too. Or, you can check with a local machine shop because they may very well have what you're looking for).

When you have obtained a suitable base—the part which will actually fit into your car's trunk—it's time to drill it for the SO-239 connector. Using a half-inch bit, punch the hole for the SO-239 and install it. Make sure it's the type that is made for a chassis mount with a retaining nut. The other type requires four screws and won't do. Once you have the SO-239 in place, snug it down and leave it aside.

Leaving the base plate aside for a minute, it's time to begin preparing the coil form. For this you'll need the drill, a 3/8s-inch drill bit, a 9/16s-inch bit, a good vice and a good saw.

When purchasing the coil stock, it's a good idea to get a good long piece of rod (whether it's plexiglas, dremel or phenolic stick), that's about one-and-three-quarter inches in diameter. Once you have purchased this, put it into your vice and cut off about a six-inch piece of the rod. (Make sure that the end you've already prepared is included in this section you're working on.)

The first step in preparing the coil form is to drill a hole about an inch-and-a-half from the base of the form. You'll be using the 3/8s bit for this. It's where one end of the coil wire passes through. Repeat this process at the other end, roughly an inch-and-a-half from the top.

Then, move to the base of the antenna coil (opposite the end you've already prepared), and, using the 9/16ths bit, punch another hole that's roughly an inch deep. Into this you're going to insert a three-quarter-inch screw and some gasket material to act as insulation. You're also going to need a washer for the screw. It is this

screw which will attach the coil to the base that you've already cut.

Now it's time to wind the coil. Sounds a little bit forbidding, doesn't it? It really isn't, in fact, it is very easy. The first step in this process is unspooling the roll of copper wire (aluminum works well, too) you've purchased to do this job. You'll probably have noticed by now, that the darn thing wants to remain all rolled up. That's because the wire has a memory. It has memorized the position in which it was stored.

It's really easy to remedy this. Find a vacant doorknob, and hook one end tightly around it. Then, grabbing the wire firmly, walk away from the door putting strong tension on the wire. You should find the wire rapidly straightening out.

Now what you've got is a length of straight wire. This will be the loading coil. Go back into your work room with the wire and begin the winding process. Keeping moderate tension on the wire, carefully run it around the coil form. Make sure as you are doing this there is a minimum of one's wire width between the turns of the coil. It should take you approximately 34 turns to complete the coil. Notice that I haven't told you to run the wire through the two holes that were drilled through the core. There is a reason for this. The reason is you're going to have to gently slide the coil off the form to check it.

For this check, you're going to need a grid dip oscillator. This is one of those instruments that radio amateurs use. With this instrument you can measure the frequency of an antenna coil, check out capacitors, align receivers and check your antenna to make sure it is operating properly. As you can see, this is a pretty valuable gizmo. I think it's one that every serious radio enthusiast should keep in his bag of tricks. What it is essentially is a variable tuned circuit which "dips" when it agrees with the frequency you are looking for. If you don't have one yourself, see if you can borrow one from a friend. With this instrument, you'll find you need the 34 turns of coil (give or take a couple) that I mentioned earlier.

Don't think, though, that it was an easy task determining this figure because it wasn't. It took the better part of three hours with the dip meter, wire and calculator and, finally, probability curves, to come up with the right figure. But, at least you have

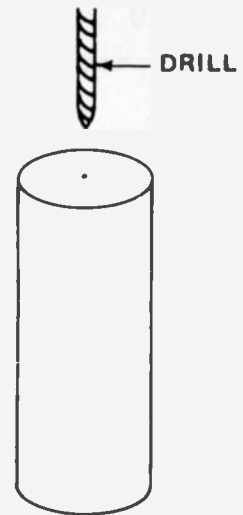


Fig. 1

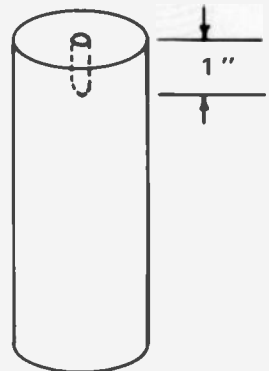


Fig. 2

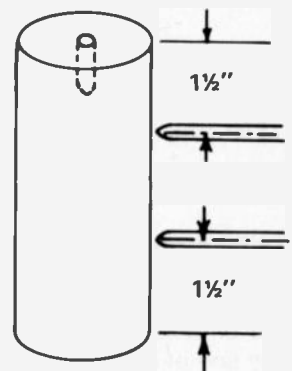


Fig. 3

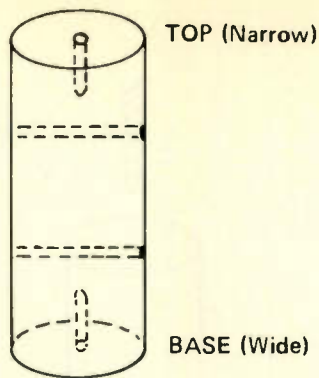
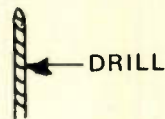


Fig. 4



TO RADIATOR

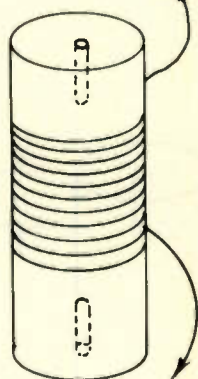
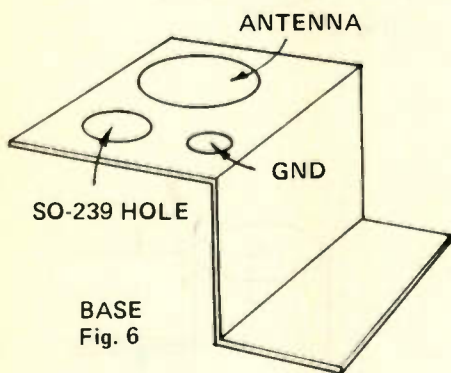


Fig. 5

TO GROUND

Note: Not to scale



BASE
Fig. 6

a starting point. Yours may vary considerably.

With the properly tuned coil, you should be able to eliminate the need for any sort of matching network to insure proper load and source matching. However, if you want to make sure that everything is super-perfect (what in life is?), then I'd suggest inserting a variable capacitor in parallel with the coil.

Now that you have the coil wound and checked, it's time to slip it back over the form. This time, though, you're going to a little extra work. Take the ends of the coil wire and insert them into the lengthwise holes you drilled. Leave the two ends hanging, we'll be working with them in a few minutes. Moving along to the top end of the rod, it's time to take the steel rod and insert it. For this assembly you're going to need an assortment of nuts, washers and the solder lug. You'll have to experiment with the right size. Make sure that the radiator rod also has a thread of some sort of threading. This will make for a more rigid mechanical unit.

All you have to do is place a washer on the top end and a nut right above it. Then take a solder lug and a second washer and a second nut and then snug the whole accumulation of hardware down with the 60-inch rod. (You can probably find the appropriate rod at a local machine shop and you can probably also have them cut the thread.)

Next, heat up your soldering iron and solder the end of the coil to the lug. This connection allows the radio waves to travel to the antenna's radiator.

The next step is attaching the whole unit to the base plate. First punch a 9/16s-inch hole in the plate for the attaching screw (remember, you've already drilled a hole for the SO-239 in the base. Then take the insulating material—rubber, cork, whatever—and place it over the hole you just drilled. Now, take a 3/4-inch screw and an appropriate washer, and, from the bottom, attach the coil to the base plate.

At this point we're about two-thirds of the way done with the antenna and the next steps are relatively easy. But, the next step requires the installation of a ground solder lug and screw. You're going to have to punch a third hole in the base plate for this and use a small screw, nut, washer and solder lug. It is to this point where you attach the remaining free end of the coil, so heat up your soldering iron and do it. The next step is determining the best matching point.

What you'll be doing at this time is tapping the coil. The first move is to attach a length of wire to the center lug of the SO-239 connector. This is the point that actually takes the rig's power. Once this has been done, lightly attach an alligator clip to the free end and place the clip about 17 turns

TURNER[®] CB Microphones



RK 76

Turner has combined noise cancelling features and the range-bocosting advantages of a power mike. Noise cancelling keeps your transmission free of background noise while the preamp circuit assures you full modulation, maximum range and optimum clarity.

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

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

Why?

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

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



RK 56

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



Super Sidekick

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



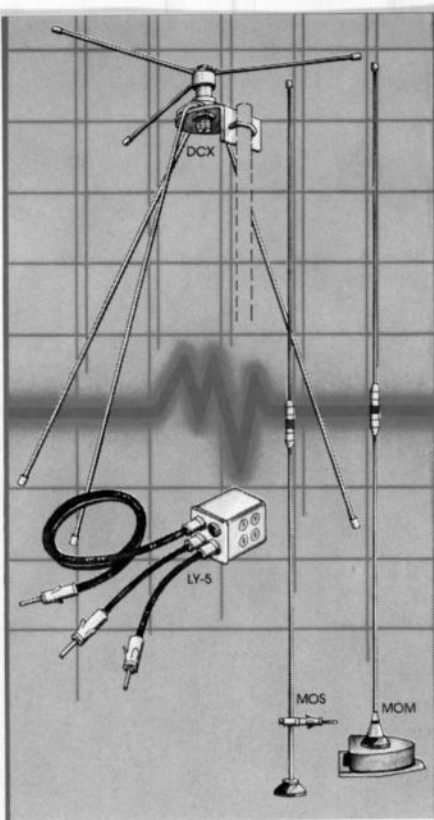
+3B

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

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up the coil.

The last maneuver in this easy, but seemingly complex, task is installing a length of coaxial cable between your rig and the antenna. You'll have to have the kind with two male fittings since the SO-239s that are both on the antenna and the back of your rig are female fittings. At this time, you're also going to have to install an SWR meter in line with the rig and the antenna because it is this unit which will give you the proper place for permanent attachment of the coil tap.

With this all done, power up your rig and adjust the SWR meter. Then, with the doors of your mobile closed, take a reading to see how close you are to a reasonable reading. After this initial reading, go out and move the tap up two or three coils and take another reading. You should see a noticeable change in the SWR (for better or worse depends on the characteristics of the particular coil you've wound. They are all different). Continue these adjustments until you find the lowest SWR. At this point, lightly secure the clip with the piece of tape.

Now take your soldering iron (if you don't have one, you should make sure that your shack is equipped with one. They come in handy.) and solder the free end—the one with the clip lightly attached—to the point of lowest SWR. This just about does it. (If you've installed a variable capacitor for super-fine tuning the antenna, you'll have to add this step. This step is going back into the car and re-keying your mic to check the SWR again. It should be low. Now go to the antenna and give the capacitor about a quarter turn and then re-check the SWR reading. Continue this process until you've obtained the lowest possible figure. Then take a drop or two of Super Glue or epoxy and put it on the capacitor. This will keep it set where you want it, despite any possible vibrations which can loosen it.

(To attach this capacitor in parallel, you'll need a couple of metal posts—aluminum will do—and you'll have to solder them to anchor points above and below the tap spot on the coil. You'll then have to attach a couple of strips of aluminum from the posts, allowing enough gap in between them to attach the capacitor. Next simply solder the capacitor to both sides and your installation is done. It isn't too complicated, but it is time-consuming and really shouldn't be needed.)

The last step in the construction of the antenna is simply covering the whole assembly securely with vinyl electrical tape. This is to keep out moisture and to make sure the performance of the antenna isn't degraded. If you really want to be a fanatic about it, you can get some VERY, VERY large heat-shrink tubing and cover the whole coil with it. This should really do the job well.

Once all of this is done, simply install the base plate into the trunk lip of your car and loosen the radiator stick for any final adjustments that may be needed. Then disconnect your SWR bridge, turn on your rig and start talking. Your antenna is finished.

This whole process shouldn't take you more than four or five hours on a rainy Saturday or Sunday. It's well worth the effort. This is because you know YOU built the antenna and it didn't come out of a box. You also know it should perform very well. And just think, you've also learned enough to become the antenna expert at any coffee break.

All in all, I'd say it gives you a nice feeling (it did to me). So try making your own antenna. If you follow the guidelines, I'm sure you'll like it.

FINAL ASSEMBLY

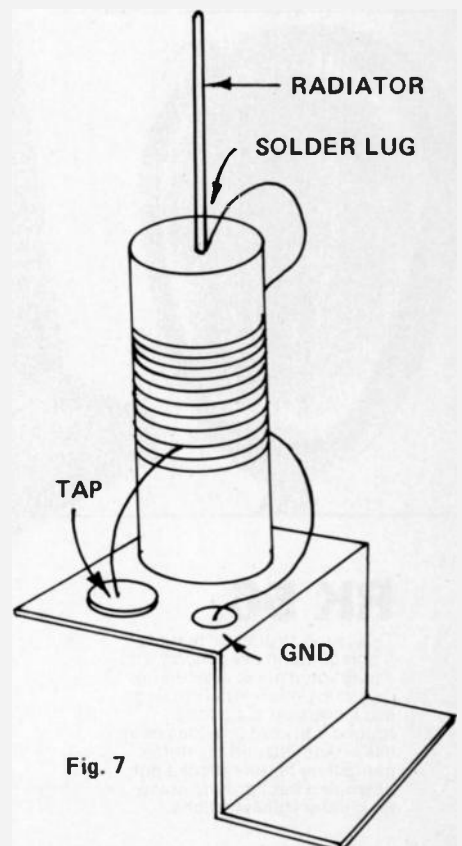


Fig. 7

For Information About Our Advertisers . . .

CIRCLE 8 ON READER SERVICE CARD

Cardswappers Unlimited

S9's Column for QSL Cardswappers

Conducted By: Dorothy Ferrentino



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

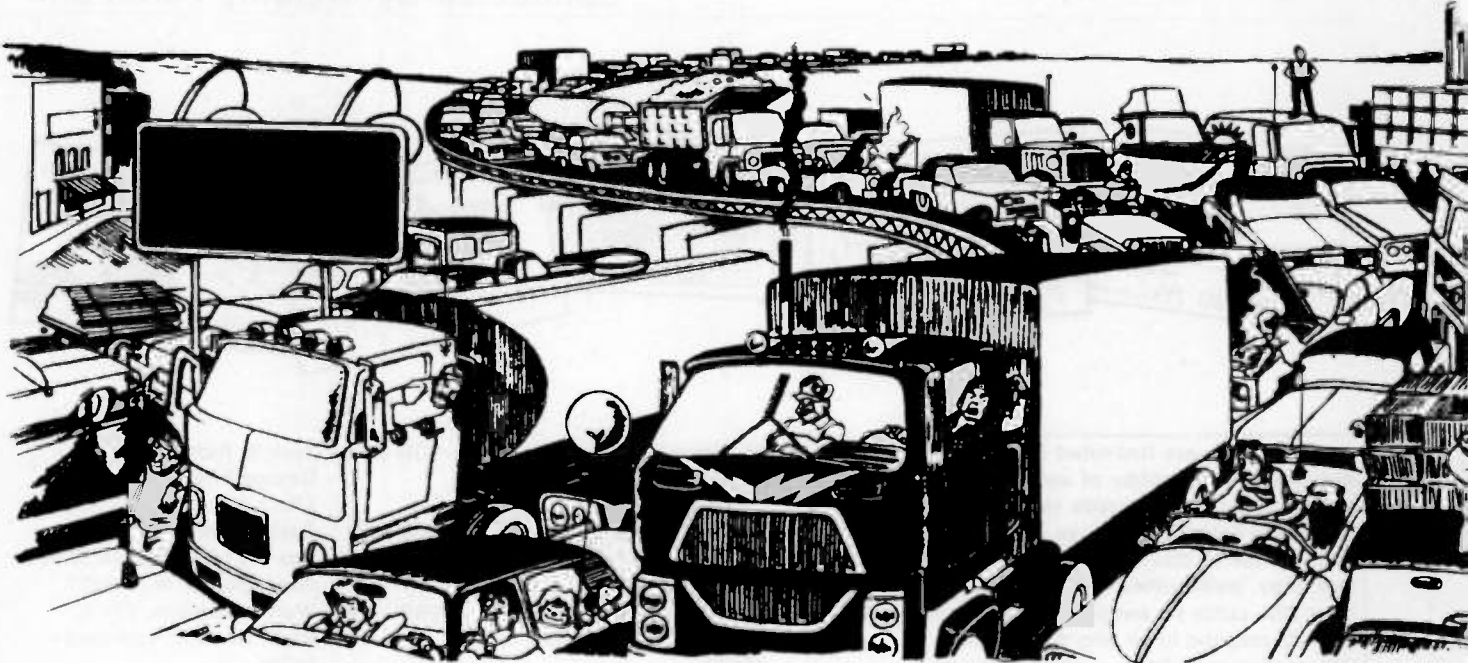
Readers wishing to be listed as Cardswappers are requested to obtain a copy of our rules and standards for becoming a part of this column. These rules were outlined in the December (1979) issue of CB RADIO/S9; a reprint is available for 25 cents and a self-addressed stamped envelope. Address all requests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

- KBDO-4310 Mr. Michael Ray, 200 W. Carney Ave., E. Herkimer, N.Y. 13350
- KMV-2120 Jim Thompson, Route 6, Box 90A, Ada, Oklahoma 74820
- KEY 2443 M. Spranger, Jr., Rt. 1 Perry Lake, Fairview, Mich. 48621
- Mr. Magic Harold Martin, 101 Diplomat Plaza, Morton, Illinois 61550
- KPM-0221 78 Hudsondale St., Weatherly, Pennsylvania 18255
- KPM-0221 Hazel Gettinger, 78 Hudsonville St., Weatherly, Pa. 18255

- KNH-4892 M. Zimer, 2917 Coventry Blvd. NE, Canton, OH 44705
- KES-1734 Walter Cummings, 106 Haskell St., Westbrook, Maine 04092
- KAO-9736 Herman & Mamie Daley, 22 Teetsel St., Saugerties, NY 12477
- USS-2001 P.O. Box 14786, Philadelphia, PA 19134
- KAIF-3799 P.O. Box 509, Gig Harbor, WA., 98335
- KAPZ-7857 Jay Ehret, P.O. Box 173, Oaklyn, NJ 08107
- Big Dollar Pres., U.S. of Texas QSL Swap Club, P.O. Box 183, Henderson, TX 75652
- KPM 0221 Hazel Gettinger, 78 Hudsondale St., Weatherly, PA 18225
- KTU 7358 Harold & Betty Martin, 101 Diplomat Plaza, Morton, Illinois 61550
- KAHI-4231 Thomas Brown, Jr., 1697 West Princeton Ave., Brick Town, NJ 08723
- Hill Top Lady Ethel Gomez, 24 Woodland Dr., Wappingers Falls, N.Y. 12590
- KAAE 2986 Loys & Rosemary Marsh, 4971
- KBBV 1422 Hwy. H., Kewaskum, Wi. 53040
- UNIT 124 Dale & Judy Berry, Box 187, Lupton, Mich. 48635
- KBRE-9298 Claudia Mitchel, Box 2607, Providence, Rhode Island 02907
- Mr. Coffee Mr. Michael Ray, 200 W. Carney Ave., E. Herkimer, NY 13350

- KOQ-8275 Jack B. Richter, 23 E. George Street, Yoe, PA. 17313
- KCS-6872 Cecilia & Wayne Roberson, Box 11014, Parkwater Station, Spoken, Wn. 99221
- KBPL-7464 Walt Hilkemann, 711 E. Bluff, Norfolk, Nebraska 68701
- Big John Snuggles P.O. Box 9266, Phoenix, AZ 85068
- KHN-4892 Mike Zimer, 2917 Coventry Blvd., N.E., Canton, Ohio 44705
- KQL-5845 John J. Vinsko, 34 Weston Place, Shenandoah, PA. 17976
- KAPT-1566 Charlie Kirk, 939 Detroit Ave., Lexington, KY 40505
- Red Devil 11632 Las Lucas, Santa Ana, California 92705
- KBGD-5575 Patrick Clinch, 22 Division St., Brick Town, NJ 08723
- UNIT 776 Jerry Willis, FMC TMC 1, Box 43, APO 09710 N.Y.
- KAST-6919 Mildred S. Bugbee, Route 1, Box 39, Pennville, Indiana 47369
- 47 WW 32 Vice president of Scandinavian Skippers Gunna, Box 2035, SK-8900 Randers, Denmark
- KND-6021 Al Eisner, 12609 Farnell Drive, Wheaton, Maryland 20906
- R-CAT-6 Al Eisner, 12609 Farnell Drive, Wheaton, Maryland 20906
- ZSI-295 Mr. L.C. Corrin, 165 Visser Street, Peerless Park, Kraalfontein 7570 South Africa

Guide To The



One thing's for sure, when you want and need a *Smokey* you want him *pronto*, whether it's help for yourself or if you've stopped to aid another motorist. Sure, when you're at your home 20 or motoring around the area where you live, you know *exactly* how to summon help. But it can get a little confusing and tricky when you are somewhere off on a strange *boulevard*!

Some state patrols now have bases and/or mobile units monitoring on CB Channel 9, some are on Channel 19. Hopefully your CB call for aid will be picked up by one of their bases or *Tijuana Taxis*—but sometimes you're out of range or else there is so much other traffic on the channel that communications range is reduced (sure, *Smokey* may be only 2 miles down the

superslab, but if there happens to be CB activity on the channel a mile away from him the signals are going to drown you out in his receiver). And then it could be that a *Smokey* who would normally be available to hear you and offer aid could be tied up with other duties of a higher priority than yours. Then, let's not also forget that not all *Smokies* have *ears*!

The point is that while CB is the natural *first* choice for summoning aid by those who have rigs installed in their vehicles, it does not offer 100% reliability 100% of the time in 100% of the nation. Our hope is to help you reduce those odds to *zip*—to offer you a second line of air which you can take with you along with your CB rig, one which will always assure you of a 100% shot at

summoning aid, even if you can't get through via CB! The backup system is the landline, and we have here for your reference a handy guide to the telephone numbers of the various state highway patrol stations in all areas of the country.

So, if a couple of shouts on the CB doesn't bring a brightly flashing bubble gum machine heading in your general direction—see if you can find a pay phone. Also, maybe it's a good idea to keep this data handy around your base station for reference—you never know what you can hear coming through via *skip*. Only a few issues ago we ran a story about a CB emergency shout that had to be landlined in from 1600 miles away by someone who heard it via *skip*!

Super Troopers



S9's Handy Guide To State Police & Highway Patrol Landlines

HIGHWAY ASSISTANCE TELEPHONE DIRECTORY

THIS IS A CONVENIENT LISTING OF STATE
HIGHWAY PATROL TELEPHONE NUMBERS
BY STATE AND CITY

STATE/CITY	AREA CODE	PHONE NO	STATE/CITY	AREA CODE	PHONE NO
Alabama					
Alexander City	205	234-2601			
Birmingham	205	322-4691			
Decatur	205	353-0631			
Demopolis	205	289-0102			
Dothan	205	983-4587			
Eufaula	205	687-2054			
Evergreen	205	578-1315			
Florence	205	383-9212			
Gadsden	205	546-6385			
Grove Hill	205	275-3249			
Hamilton	205	921-3121			
Huntsville	205	881-4141			
Jacksonville	205	435-3521			
Mobile	205	661-4993			
Montgomery	205	832-6735			
Opelika	205	745-4651			
Selma	205	874-8234			
Tuscaloosa	205	345-4121			
Alaska					
Anchorage	907	333-6541			
Fairbanks	907	452-2114			
Glennallen	907	822-3263			
Juneau	907	465-4313			
Kodiak	907	486-4121			
Palmer	907	745-3333			
Soldotna	907	262-4052			
Arizona					
		Dial Operator			
		Ask for			
		DPS Dispatch Center			
Arkansas					
Clarksville	501	754-3096			
Dumas	501	382-6311			
Förrest City	501	633-1454			
Fort Smith	501	783-5195			
Harrison	501	741-3455			
Hope	501	777-4641			
Hot Springs	501	262-1814			
Jonesboro	501	935-7302			
Little Rock	501	371-2151			
Newport	501	523-2701			
Springdale	501	751-6663			
Warren	501	226-3713			
California					
Emergency and		Dial Operator			
Accident only		Ask for			
		Zenith 1-2000			
All Other					
		Dial Operator			
		Ask for			
		Highway Patrol			
Colorado					
Alamosa	303	589-2503			
Aurora	303	344-2536			
Breckenridge	303	573-5887			
Broomfield	303	469-1966			
Burlington	303	346-8703			
Castle Rock	303	689-3115			
Colorado Springs	303	635-3581			
Cortez	303	565-8441			

STATE/CITY	AREA CODE	PHONE NO	STATE/CITY	AREA CODE	PHONE NO
Craig	303	824-6501	Gainesville	904	376-8251
Denver	303	757-9475	Inglis	904	447-2424
Durango	303	247-4722	Jacksonville	904	355-9981
Eagle	303	328-6343	Key West	305	296-5644
Fort Collins	303	484-4020	Kissimmee	305	846-2333
Fort Morgan	303	867-6844	Lake City	904	752-3735
Golden	303	279-7923	Lake Placid	813	465-3212
Grand Junction	303	242-7447	Lakeland	813	686-2164
Greeley	303	353-1151	Lanlana	305	588-8545
Hot Sulphur			Leesburg	904	787-6060
Springs	303	725-3393	Madison	904	973-2251
La Junta	303	384-2562	Marathon	305	743-5511
Lamar	303	336-7403	Marianna	904	482-2301
Limon	303	775-2354	Melbourne	305	723-2525
Littleton	303	794-3499	Miami	305	325-3613
Montrose	303	249-4392	Ocala	904	622-4181
Pueblo	303	544-2424	Orlando	305	423-6412
Sterling	303	522-4693	Weights	305	423-6428
Trinidad	303	846-2227	Pahokee	305	924-5580
Connecticut					
Dial Operator — Ask for Nearest			Palatka	904	325-4545
State Police Barracks			Panama City	904	785-6196
Delaware					
Kent County	302	674-3111	Pensacola	904	433-5661
New Castle County	302	731-8111	Perry	904	584-6615
Sussex County	302	856-7011	Pinellas Park	813	893-2711
Florida					
Arcadia	813	494-2303	Quincy	904	627-7528
Bradenton	813	748-1511	St. Augustine	904	824-2856
Brooksville	904	796-3535	Starke	904	964-7300
Crestview	904	682-2762	Tallahassee	904	488-8676
Cross City	904	498-3309	Tampa	813	272-2373
Daytona Beach	904	253-1658	Titusville	305	269-7860
Deland	904	734-2055	Venice	813	485-3343
Eastpoint	904	670-8511	West Palm Beach		
Everglades	813	695-2081	Turnpike	305	683-1140
Ft. Lauderdale	305	522-5441	Georgia		
Ft. Myers	813	936-0511	Albany	912	439-4248
Ft. Pierce	305	461-2020	Americus	912	928-1200
			Athens	404	542-8660
			Atlanta	404	656-6077
			Blue Ridge	404	632-2215
			Brunswick	912	265-6050
			Calhoun	404	629-8694

STATE/CITY	AREA CODE	PHONE NO	STATE/CITY	AREA CODE	PHONE NO
Cartersville	404	382-3232	Louisiana		
Canton	404	479-2155	Alexandria	318	487-5911
Cedartown	404	748-3334	Baton Rouge	504	925-4024
Cordele	912	273-3131	Covington	504	892-5151
Cuthbert	912	732-2167	Gray	504	868-4562
Dalton	404	259-2200	Lafayette	318	235-4522
Donaldsonville	912	524-2177	Lake Charles	318	491-2511
Douglas	912	384-1600	Leesville	318	239-3414
Dublin	912	272-2300	Monroe	318	325-4343
Forsyth	912	994-5159	New Orleans	504	568-5751
Gainesville	404	532-5305	Opelousas	318	942-6515
Griffin	404	227-2121	Raceland	504	537-3211
Helena	912	868-6441	Shreveport	318	226-7621
Hinesville	912	876-2141			
Jekyll Island	912	635-2303	Maine	207	289-2155
LaFayette	404	638-1400			
LaGrange	404	882-8104	Maryland		
Lawrenceville	404	963-9246	Annapolis	301	269-3301
Madison	404	342-1515	Baltimore Area		Dial Operator
Manchester	404	846-3106			for Local Police
Milledgeville	912	453-4717	Bel Air	301	838-4101
Newman	404	253-3212	Brooklandville	301	828-5101
Perry	912	987-1100	Cambridge	301	228-3101
Reidsville	912	557-4378	Centerville	301	758-1101
Rome	404	295-6002	Cumberland	301	729-2101
Savannah	912	232-6414	Denton	301	479-3101
Statesboro	912	764-5654	Easton	301	822-3101
Swainsboro	912	237-7818	Forrestville	301	568-8101
Sylvania	912	564-2018	Frederick	301	663-3101
Thomaston	404	647-7153	Garrett	301	387-5511
Thomasville	912	228-2300	Glen Burnie	301	761-5130
Thomson	404	595-2622	Greenbelt	301	345-3101
Tifton	912	386-3333	Hagerstown	301	739-2101
Toxco	404	886-4949	Jessup	301	799-2101
Vadostia	912	247-3442	Leonardtown	301	475-8001
Villa Rica	404	459-3661	North East	301	398-8101
Waycross	912	283-6622	Oakland	301	387-5511
Washington	404	678-3232	Pikesville	301	486-3101
			Prince Frederick	301	535-1400
Hawaii	808	955-8111	Randallstown	301	922-4101
			Rockville	301	424-2101
Idaho			Salisbury	301	749-3101
Boise	208	384-2900	Security	301	298-3101
	208	384-3649	Waldorf	301	645-1500
Coeur d'Alene	208	664-9276	Westminister	301	848-3111
Idaho Falls	208	522-5141			
	208	522-5146	Massachusetts	617	586-4500
Lewiston	208	743-9546	Frammingham	617	879-6762
Pocatello	208	232-1426	Holden	617	829-5336
	208	232-1508	Logan Int'l Airport	617	567-2233
Twin Falls	208	733-7210	Middleboro	617	947-8510
	208	733-4933	Northampton	413	584-3205
			Weston	617	237-2931
Illinois			Michigan		
Albion	618	445-2335	Alpena	517	354-4101
Ashkum	815	698-2315	Bad Axe	517	289-6441
Cairo	618	734-0270	Battle Creek	616	968-6115
Chicago	312	283-2400	Bay City	517	684-2234
Command Center	217	782-7762	Benton Harbor	616	926-7361
Crestwood	312	385-2121	Blissfield	313	486-2131
Du Quoin	618	542-2171	Bridgeport	517	777-3700
Elftingham	217	536-6161	Brighton	313	227-1011
Elgin	312	742-3553	Cadillac	616	775-2433
Joliet	815	726-6291	Calumet	906	337-2111
Litchfield	217	324-2151	Carro	517	673-2156
Macomb	309	833-2141	Cheboygan	616	627-9973
Maryville	618	345-1212	Clinton	313	456-4123
Metamora	309	676-2116	Detroit Freeway	313	256-9636
Oak Brook	312	654-2200	East Tawas	517	362-3434
Pecatonica	815	963-7686	Erie	313	848-2015
Peru	815	224-1150	Fial Rock	313	782-2434
Pesotum	217	867-2211	Flint	313	732-1111
Pittsfield	217	285-4431	Gaylord	517	732-5141
Pontiac	815	844-3131	Gladstone	906	428-1212
Rock Island	309	788-9501	Grand Haven	616	842-2100
Springfield	217	782-2377	Hart	616	873-2171
Sterling	815	625-0151	Houghton Lake	517	422-5101
Indiana	317	232-8250	Ionia	616	527-3600
			Iron Mountain	906	774-2121
Iowa	1-800	362-2200	Iron River	906	265-9916
			Ithaca	517	875-4111
Kansas			Jackson	517	782-9443
Chanute	316	431-2100	Jonesville	517	849-9922
Garden City	316	276-3201	L'Anse	906	524-6161
Hays	913	625-3518	Lakeview	616	352-7247
Kansas City			Lansing	517	322-1911
(Olathe)	913	782-8100	Lapeer	313	664-2905
Kansas Turnpike			Manistee	616	723-3535
(Wichita)	316	682-4537	Manistique	906	341-2101
Salina	913	827-4437	MI Pleasant	517	773-5950
Topeka	913	296-3102	Munising	906	367-4550
Wichita	316	744-0451	Newaygo	616	652-1661
			New Baltimore	313	725-7531
Kentucky			Newberry	906	293-5151
Ashland	606	928-6421	New Buffalo	616	469-1111
Bowling Green	502	782-2010	Negaunee	180	475-9922
Columbia	502	384-4796	Niles	616	683-4411
Dry Ridge	606	428-1212	Northville	313	256-1503
Elizabethtown	502	765-5118	Nowata	517	721-6761
Frankfort	502	227-2221	Oawson	616	657-5551
Harlan	606	573-3131	Paw Paw	616	347-8101
Hazard	606	439-2343	Potosky	313	329-9132
Henderson	502	826-3312	Pontiac	616	832-2221
LaGrange	502	222-0151	Reed City	616	866-4411
London	606	864-5165	Rockford	313	752-3521
Madisonville	502	821-3513	Romeo	313	648-2233
Mayfield	502	856-3121	Sandusky	906	632-2216
Morehead	606	784-4127	Sault Ste Marie	616	637-2125
Pikeville	606	437-7311	South Haven	313	329-2233
Richmond	606	623-2404	St Clair	906	753-2275
			Stephenson	906	643-8383
			St Ignace	906	643-8383

STATE/CITY	AREA CODE	PHONE NO	STATE/CITY	AREA CODE	PHONE NO
Tekonsha	517	767-4128	New York		
Traverse City	616	946-4646	Adams	315	232-4551
Wakfield	906	224-9691	Albany	518	457-6811
Wayland	616	792-2213	Albion	716	589-4244
West Branch	517	345-0955	Alexandria Bay	315	482-2525
White Pigeon	616	483-7611	Alegany	716	373-2550
Ypsilanti	313	256-1777	Amsterdam	518	843-3210
			Auburn	315	253-9793
Minnesota	612	482-5900	Batavia	716	343-2200
For Emergencies — Dial Operator			Bain	607	776-2135
Ask for Zenith 7000			Belfast	716	365-2611
			Bethpage	516	249-2232
Mississippi			Binghamton	607	775-1242
Batesville	601	563-6651	Brewster	914	279-6162
Brookhaven	601	833-7811	Brockport	716	637-5311
Greenwood	601	453-4515	Brunswick	518	279-3403
Gulfport	601	864-1314	Camden	315	245-1400
Hattiesburg	601	264-3529	Canandaigua	716	398-3200
Jackson	601	982-1212	Canton	315	386-8531
Meridian	601	693-1926	Carthage	315	493-1331
New Albany	601	534-4755	Catskill	518	622-8600
Starkville	601	323-5314	Chazy	518	298-5207
			Chesiertown	518	494-3201
Missouri			Clarence	716	759-6831
Dial Operator			Claverack	518	851-3111
Ask for Nearest			Cobleskill	518	234-3131
Highway Patrol Office			Cooperstown	607	547-2233
			Corning	607	962-2622
Montana			Cortland	607	756-5604
Dial Operator			Deposit	607	467-3215
Ask for Nearest			Dover Plains	914	877-3031
Highway Patrol Office			Dresden	315	536-6103
			Duanesburg	518	895-2325
Nebraska	Dial 911 or		East Greenbush	518	477-9333
Ainsworth	402	387-2510	Elizabethtown	518	873-2111
Grand Island	308	382-8962	Ellenburgh Depot	518	594-3150
Holdrege	308	995-5245	Ellettsville	914	647-5410
Lincoln	402	477-3951	Falconer	716	665-3113
McCook	308	345-1400	Ferndale	914	292-6600
Norfolk	402	371-5113	Fishkill	914	896-6242
North Platte	308	532-3430	Fonda	518	853-3414
Omaha	402	331-3333	Fredonia	716	679-1521
Scottsbluff	308	635-3656	Franklinville	716	374-2550
Sidney	308	254-4669	Fulton	315	593-1253
			Geneseo	716	243-2200
Nevada			Geneva	315	789-7763
Dial Operator			Gloversville	518	725-3034
Ask for Zenith 1-2000			Gouverneur	315	287-2115
			Greene	607	656-4275
New Hampshire	1-800	852-3411	Hawthorne	914	769-2600
	1-800	852-3412	Henrietta	716	271-4646
New Jersey			Herkimer	315	866-7111
Atlantic City	609	561-6505	Highland	914	691-2922
Expressway	609	296-2031	Hossick Falls	518	686-5342
Bass River	201	362-6128	Horseheads	607	739-3801
Blairstown	201	338-8260	Hunter	518	263-4808
Bloomfield	609	298-1170	Ithaca	607	273-4671
Borden Town	609	451-0100	Kinderhook	518	758-0422
Bridgeport	609	451-0100	Lafayette	315	677-3122
Cott's Neck	201	462-5712	Lake Placid	516	352-0121
Flemington	201	782-3636	Lake Success	716	297-0755
Fort Dix	609	723-7121	Lewiston	518	783-3211
Hanover	201	948-3333	Loudonville	315	176-6241
Hampton	609	561-1800	Lowville	518	696-2535
Hightstown	609	448-0073	Luzerne	518	483-5000
Holmdel	201	264-4150	Malone	518	696-2535
Hopewell	609	737-0101	Margaretville	914	586-2681
Little Falls	201	785-4477	Massena	315	769-3503
Mania	609	468-1100	Mayfield	518	725-3034
Mays Landing	609	625-1104	Middletown	914	343-1424
Moorestown	609	235-1000	Monroe	914	782-8311
Morrisstown	201				

ON THE SIDE

S9'S MONTHLY COLUMN FOR SIDEBANDERS
BY BILL SANDERS/SSB-295, KW-5304, KBAH6794

FIXEM-UP: GETTING NATIONAL NUMBERS

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

LEARNING THE ROPES

It's interesting to note that so many Sidebanders I hear from by mail or meet in QSO seem to think that the only way a petition for changing the FCC rules and regulations can be submitted is if it is sponsored by a publication or a club. This isn't at all true and I recall when Channel 9 was finally set aside by the FCC for emergency communications it was not because of a plea submitted by REACT or some other similar organization, it was because one individual (the late George Nims Raybin) filed the request. You, as an individual, can suggest changes too, and this month let's look at the process by which such proposals are shuffled through the various steps and processes while on their way to success or failure. We'll also give some advice on how to properly comment on someone else's efforts to change the rules—so that you can either support or squawk about their idea. From the poor turnout the exclusive SSB frequency proposal (RM-3317) received from Sidebanders, one might well assume that maybe folks just didn't

know how to respond to repeated requests/suggestions/demands to write in to support the idea.

First, let's see how to generate and originate your own suggestion for the rules to be changed.

1. Initiate the action. Although sometimes changes in FCC rules can come from within the FCC itself, they may also come about from external sources such as legislation, court decisions, or from formal petitions from industry, organizations, or individuals. Even informal suggestions, claims the FCC, might be the inspiration for them to consider changing the rules.

2. Bureau/Office Evaluation. When a petition for Rule Making is received, it is sent along to the appropriate FCC office or department for evaluation. At this point it can be killed by the people evaluating it if they don't wish to pass it on further down the line for additional consideration. If they think the idea has merit, they can request it be assigned on "RM" (Rule Making) number. A weekly notice is issued listing those petitions which were assigned such a number and the general rule is that the public has 30 days to submit comments. At that point, the department or bureau has the option of generating an agenda item requesting 1 or 4 actions by the Commission. If a *Notice of Inquiry* (NOI) or *Notice of Proposed Rule Making* (NPRM) is issued, a Docket is created, and a Docket Number is assigned to replace the RM number.

3. Possible FCC Actions. Major changes to the rules are presented to the public as either an NOI or NPRM. The FCC issues an NOI when it is simply asking for opinions on a broad concept or hoping to stimulate new ideas on a given topic. An NPRM is used when there is a specific change to the rules being proposed. An NOI must be followed up with an NPRM or a *Memorandum Opinion & Order* (MO&O) concluding the inquiring. The issuance of an MO&O means that the idea was dumped and that's the end of its journey down FCC Lane.

4. Comments & Replies Evaluated.

When an NOI or NPRM is issued, the public has the opportunity to offer initial comment, and then later they can even respond to the initial comments which were made. In the event the NOI or NPRM doesn't get much of a response from the public, the FCC may issue a further NOI or NPRM to try to stimulate the public to participate. At some point the FCC might decide that an oral presentation before the Commission is needed to get the public to offer their opinions, as well for the FCC personnel to have their say too, concerning the proposed rule changes.

5. Report & Order Issued. A Report & Order is issued by the Commission which either says that the whole idea was turned down, or stating the new or amended rule which has been approved. The proceeding may be terminated in whole or part.

6. Additional Report & Orders Issued. The Commission could well issue one or more additional Report & Order notices on the Docket.

7. Reconsideration. If the public doesn't like the way the petition was handled, at this point they have 30 days to make their specific objections known to the FCC. The FCC bureaus then review these comments.

8. Modification Possible. As a result of this review of a petition for reconsideration, the FCC could possibly issue an MO&O modifying its initial decision—but it could also reaffirm its original decision and deny any further reconsideration.

As you can see, this is a winding and very arduous path, and one which takes many months and much effort to play out its drama. While it is not for the person who has less than bulldog determination and patience, it is a gamble which has nevertheless been taken by countless individuals who have decided to take their stab at destiny. To go into the process with anything less than a 100% commitment to the concept you are suggesting, and the full knowledge that

long months of work *could* end in frustration and defeat, means that you are a person who isn't cut out for the task—although it certainly seems that there are plenty of candidates who do not embark on the journey with only the most casual and half-hearted commitment. The danger of this is that if the FCC turns down the idea, it may be all the more difficult for someone to come along later and try to get them to consider another similar plan.

In the realm of filing your comments on another person's proposed rulemaking, that takes a lot less work and commitment on the part of an individual. Problem is that, even though such comments may (possibly) be of significant help in supporting a worthwhile idea, the public has not been known to be particularly responsive to pleas for their comments to be sent in. This is the result of cynical view of their comments being of any real value in the FCC processing mill (all the comments in the world could hardly have done battle with the lies and distortions presented by some FCC personnel at the SSB frequency circus last year), others see it as a "let the other guy do it" feeling many people have. Lack of knowledge of how to do it, however, probably represents the reason why a substantial number of people don't offer any comments. The lack of information on how to file comments is easily proven by simply asking any of your fellow operators to tell you how to do it; you'll hear opinions suggesting that you must submit 5, 10, or 20 copies! You see—nobody knows how to do it! Here are the secrets of this seemingly baffling procedure:

The FCC says that they would like your comments to incorporate any experiences or insights you might have which would shed light on the issues and questions raised in an inquiry or rulemaking. Be sure to explain who you are and what your interest in the matter is. State these things as briefly but completely as possible, stick to the point and don't ramble on about extraneous or tangential factors which have no direct bearing on the petition. Clearly explain your experiences and offer any specific facts or evidence which supports your position.

Your comments are going to have to be clear and explicit, I understand that some of the comments the FCC receives are so vague and ambiguous on major points that the FCC people say that they sometimes can't figure

out if a person is saying that they are for or against parts of or an entire petition! If you don't like all or part of a proposal, make it clear. Or, if you generally support the idea, but feel it needs certain safeguards or modifications, explain them and why you think they are needed.

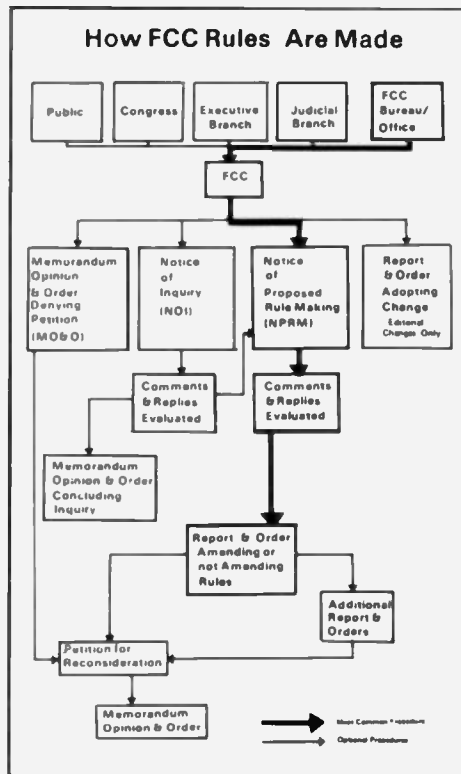
Comments should include facts which might support the same goals as the petition under consideration, but approached from a totally different position—discuss this and explain

any and all Dockets or Rule Making proposals! And if you are going to say that you don't know about the details of a specific NOI or NPRM, copies of specific ones you want can be obtained from the FCC's Public Information Officer at the address above; be certain to adequately identify the specific one you want so they'll know what to send you. Also, all NOI's and NPRM's are printed in the Federal Register, and that's available at most public libraries.

NOTHING TO SAY?

Mike fright is maybe not the absolutely correct word for it, for who can be afraid of a microphone? It's not the mike but the thought that when you press that button your voice is going to be magically transported to distant parts, heard by hundreds of folks who may form an instant (and possibly unfavorable) impression of you—and that maybe one of these people will bawl you out for something or possibly attempt to engage you in a conversation on a topic which you either know nothing at all about or upon which you have definite opinions which will be a major and hostile variance to the other operator. That's what I believe most people mean when they complain of having a dash of mike fright, even after having been on the Sidebands for a year or longer.

Some of these are real and genuine things to be afraid of, and as a bit of a paranoid myself I can't look you in the eye from this page and tell you that it's all nonsense. I went through it and I think that, to one extent or another, at least 75% of the people you meet on Sideband can tell you the long and sad story of their experience with it. Strangely enough, it is mostly a Sidebanding phenomenon and is mostly unknown—on AM there seems to be less than the batting of an eye between the time the rig gets installed and the operator is *ratchet-jawing* away like an old pro, asking for *breakers, radio checks, numbers*, and doing the whole *mercy sakes* routine. My experience with listening in on the AM channels is that little more than that is really expected of an operator and the majority of contacts are so-called *quickie-breaks* which seldom evolve beyond a minute or two of exchanging *10-20* information, *handles*, and *signal* reports which are invariably "9 pounds with crystal clear audio—and how'm I hittin' ya one-two-



why the public's interest requires that the matter be resolved as you propose.

Your comments must reach the FCC before the deadline date included in the NOI or NPRM, and be sure that the Docket number or RM number appears on your comments so that it can be easily seen. If at all possible, have your comments double-space typewritten and only on 1 side of each sheet of paper you use. If you want your comments received as a "formal filing," you must submit an original and five copies. However you may simply submit 1 copy to be filed in the Docket as an "informal comment." Your comments should be sent to: Secretary, Federal Communications Commission, 1919 M St., N.W., Washington, D.C. 20554.

Now you've got no excuse for saying you didn't know how to comment on

one-two-one-two?" But on Sideband none of that routine goes and you're really pressed into the role of having to say *something*. To many folks that's not all that easy—especially if they've spent years saying *one-two-one-two*.

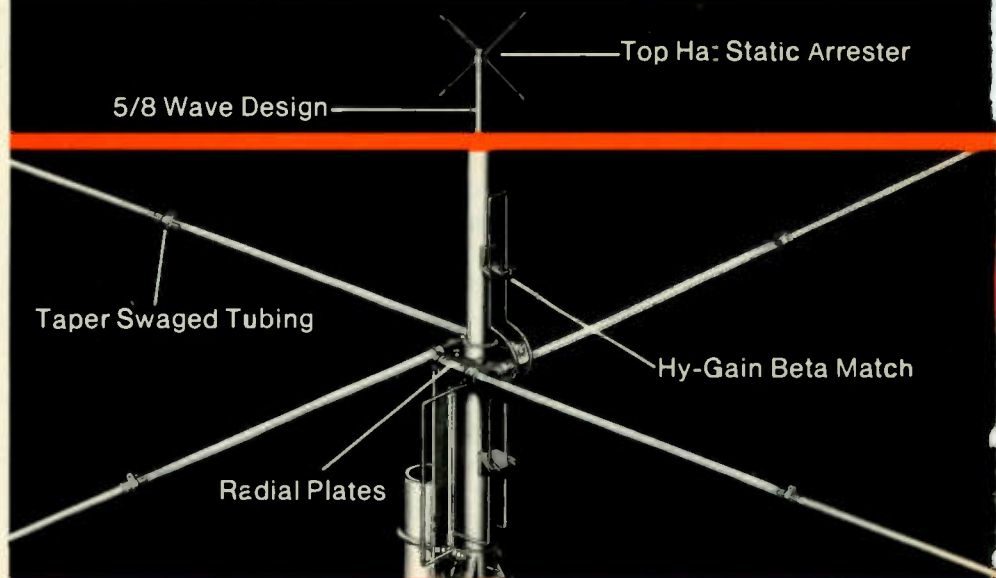
My advice to the troubled is to take into account the reality that you aren't alone with your fears and hesitation, and probably 75% of the people you are going to hook up with are just as interested in making a good impression on you as you are on them! And, no matter what anybody says, there is a knack to connecting with a total stranger—with neither of you knowing nothing much at all about one another—and charging head-on into a conversation on any subject at all, cold and "from scratch." But think about it, you know that you have several things in common with the other operator, the desire to have a QSO and also an interest in Sidebanding and its associated hardware, its current state, mutual friends you and the other operator might have from this or that club or group, things which might be coming up on Sideband's horizon, problems you might be having with your station, etc. There's really quite a lot to harvest there to chip away at that initial icy chill you may feel. Other topics to branch out your QSO into might include sports, jobs, other hobbies or interests you might have. You can always fall back on the weather ("Think the rain'll hurt the rhubarb?...that always seems to perk things up during a lull in a QSO, guaranteed to get it back on track again). The old never-fail standby last-gasp emergency trick to get a QSO under way when all other heroic efforts have been tried and failed—get the other operator to talk about him/herself! If people have nothing whatsoever to say on any other topic in the universe, the one thing which they do know about and can usually be convinced to emote upon is themselves and the conditions surrounding their existence. I don't deny that this can be boring as the dickens, but it is a good QSO-starter; and if you're the one with mike fright and don't know what else to talk about—talk about yourself, the XYL, the kids, aunt Agatha's bunions, how your kid got snotty with you—anything!

I do want to point out that there are a few topics which, over the years, have generally proven to be poor

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base station
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WORLD FAMOUS



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

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

2. The Exclusive Hy-Gain Beta Match.

The Beta Match provides proper matching between feedline and antenna for optimum performance. The Beta Match also puts the antenna at dc ground, thus draining off precipitation static.

3. Taper Swaged Tubing.

Hy-Gain uses taper swaged, heavy-gauge, aircraft quality, seamless aluminum tubing for all radiators and radials. This gives our collinear less wind loading and more stability than with most other designs available.

4. The Top Hat Static Arrester.

Hy-Gain engineering expertise developed what we call the "Top Hat" Static Arrester. This wire configuration atop many of our base station antennas is designed to reduce precipitation static to an absolute minimum, resulting in crystal-clear, two-way communication.

5. Radial Plates.

High wind survival and extra years of high performance are assured because of our rugged construction techniques. A good example of this is the machine-formed radial plates fitted to each Hy-Gain omnidirectional antenna. These precision plates hold the radials firmly in place, thus preventing them from loosening or even falling off.

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The world's most popular CB base antenna! Hy-Gain was the first to design a 5/8 wave collinear antenna. It was the ultimate omni when we invented it and it still is.

Its impressive 5.3 dB gain in all directions has become the industry standard that other 5/8 wave omnis are measured against.

The Penetrator's signal is compressed at the horizon for extra power and distance because of its extra long 22' 9" (6.9m) radiator length. Its unique top hat discharges static buildup to nearly eliminate noise. This is not just another ground plane antenna; its superb design and heavy-duty construction will handle 1500 watts of power with no problem because there are no power-robbing loading coils to burn out.

Model 500 The Super Penetrator

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

Model 473 CLR II

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

Model 410 The Original Long John

This five-element yagi with 24' (7.3m) boom delivers an amazing 12.5 dB forward gain with 31 dB front-to-back ratio.

For long distance, high powered action, this one has all other five-element yagis beat. This famous Hy-Gain Long John can handle 2000 watts of power with ease. Top quality materials and exclusive Beta Match feedpoint system with direct dc ground guarantees efficient power transfer and increases your talk power 18.4 times the normal output of your radio.

Model 542 SDB 6

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

selections for discussion on the frequencies—these would include politics, sex, or putting down assorted stores, dealers, other operators, races, religions, national origins, etc. Nastiness, bickering, or open hostilities are also not wanted on the frequencies—your problems with other operators may be of vital interest to you but I can assure you they are 100% boring to all persons not involved in the fracas.

coming events

JULY

Houston, Texas. 10th Annual National Single Sideband Convention, Astro Village Hotel, July 17 to 19. Exhibits from manufacturers, FCC seminars, dance and other features. Door prizes and a daily grand prize to be awarded. For additional information, contact E.C. "Red" Mowery at (713) 987-7489, or write P.O. Box 11874, Houston, Texas 77016.

AUGUST

Ventura, California. 5th Benefit Jamboree for Retarded Children Fund, Ventura County Fairgrounds, August 21, 22, 23. Cash prizes, radios and equipment, guest M.C.'s, camping and bingo. For more information write to Jamboree Committee, P.O. Box 878, Port Hueneme, California 93401.

Blackstone, MA. 3rd Annual Coffee Break, Sunday, August 23 from 10 a.m. to 5 p.m. at the Ice House Club on Carter Avenue. Cash prizes and awards given. Open to the public with \$2.00 advance tickets and \$2.50 tickets at the door. For information contact Harold Sherman, 79 Dewey Street, Woonsocket, R.I. 02895, or phone (401) 766-5177.

SEPTEMBER

Bowling Green, Kentucky. Mid-America March of Dimes Jamboree, September 19-20. Sponsored by the Bowling Green-Warren County C.B. Radio Club, Inc. For more information write the club at P.O. Box 376, Bowling Green, Kentucky 42101, or call (512) 843-8911.

TOMCATTIN' WITH TOMCAT!

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



HOW TO LIVE WITH "UNCLE CHARLIE"

For some time now I've been collecting bits and scraps of data on what seems to be really taking place these days in the area of FCC "enforcement" relating to CB operators and Outbanders. Readers from various parts of the nation have been kind enough to provide me with enough of the pieces of the jigsaw puzzle to see a definite picture starting to form even though there are still some missing pieces. I'm especially indebted to my old friend, Dr. Rigormortis, observing the airwaves from his vantage point in the Rocky Mountains; Doc furnished bucketfuls of data and insight on the topic.

Most observers seem to feel that the primary modus operandi of the FCC enforcement program relies heavily upon the spirit of propaganda and "X" the unknown. People tend to fear the unknown much more than is readily visible and apparent. Press releases in the general media and certain willing persons even within the field of CB publications (fortunately not here at S9) appear to be more than willing to indiscriminately print and spread each and every word of the FCC's propaganda campaign which heavily uses threats, repeated mentions of possible maximum penalties, and a constant reminder that interference is being caused by operators who wander away from the FCC regulations. Upon close examination, the specific components of the campaign fall apart—nobody seems to know of anybody hit with the maximum penalties the FCC can hand out for things CB'ers might do "wrong," specific examples of interference caused, are almost never presented and have seldom been more "serious" than a neighbor or two complaining about TVI—often a deficiency within their own TV equipment and hardly caused by any malfunction of the radio equipment supposedly causing the in-

terference. The "X" factor is what they can create from the collective paranoia of the public, combined with the effort to attack any guilty consciences out there in radio land.

Local FCC field offices do not seem especially interested in what is taking place on CB frequencies or other frequencies in the area of 27 MHz, except in the instances where they may receive repeated complaints concerning a specific problem—and even then readers report that these offices sometimes don't really do much more than go through the motions of checking out the problem and sticking the report away in a file folder. These offices appear to be primarily concerned with matters relating to broadcast stations, ship inspections, and other commercial and safety related matters; they are understaffed and have little time to play at being CB demi-gods.

The special enforcement teams, known to some as *The Gestapo*, have been quite another story—although we frequently hear reports that this program is being dismantled. They seem to pop up in various local areas without much (or any) coordination with local FCC offices. Some say that the local offices may not be aware that they are in town until they get saddled with doing lots of leg work and paper work based upon the "criminals" the special enforcement teams have selected as "examples." Such persons, it is hoped by the FCC, will cause all other local operators to obey the FCC rules (out of fear—the "X" factor—if nothing else) at least for a short while.

Some have observed that the special enforcement teams operate in rather steady cycles, visiting the same larger population areas on a regular and almost predictable basis. For example, San Diego (a pit of sin if there ever was one) was hit during the

month of October three out of five years.

Although the tactics and efficacy of the FCC special enforcement teams vary—and the combined efforts of these people plus the results obtained by the regular FCC monitoring stations show that relative to the number of operators, those hassled are only the smallest infinitesimal percentage—there are those who have somehow managed to be clever/lucky/shrewd enough to escape their clutches, even in the face of seemingly impending disaster.

For instance, *Tennessee Joe*, a jeweler, had the FCC people enter his shop and demand to inspect the station which was obviously at the other end of the coaxial cable which went up to the rather large beam on the shop's roof. Joe said, "Sorry, boys, but this is a business where I have gold and other valuable items scattered throughout my back room work area; no one is ever allowed behind the counter or in the back area without a lawfully executed search warrant." Despite various efforts to scare him into permitting entry he steadfastly refused to admit them—even when they threatened him with loss of his license because he refused to permit the inspection of his station. Eventually the FCC left, in a total snit and vowing to return "shortly." Months have past, he has heard nothing. (And yes, they were legit FCC personnel with plenty of credentials.)

White Buffalo was an operator who got *busted* in late 1979. The federales appeared at his door and demanded entry. He let them in and they immediately saw such tidbits as a 100 watt *afterburner*, a transceiver souped up to run more than the authorized power on unauthorized frequencies, and other gems. *White Buffalo* was also charged with failure to give his FCC callsign, talking more than 5 minutes, failure to have a copy of Part 95, and just about everything else except halitosis, B.O., and *pitirosoforum ovale*. And, no foolin', a month later *White Buffalo* received a "Notice of Apparent Liability" stating that *Uncle Charlie* intended to extract \$150 from his hide for his many violations. He (aided by *Dr. Rigormortis*) prepared a carefully written response to the charges, citing gross ignorance, total stupidity, and incorporating copious amounts on promises to forever behave, and "Also, don't you think that \$150 is a little too much for a poor man to pay?" No monies were included with the response. Eventually the FCC wrote back and said that they had reduced the "Apparent Liability" to only \$100—which *White Buffalo* decided to pay, although

some of those involved felt that it could have been dragged out for several years and eventually cut down to \$25 as has been accomplished by several others.

Inasmuch as the "Notice of Apparent Liability" is the most often noted manner by which the FCC communicates its unhappiness with those who don't follow the regulations, I think that it may be of interest to discuss a few of the methods which have been incorporated in efforts to get these tacky fines either reduced by at least 75% or suspended entirely. The main trick is *not* to ignore the Notice, but to promptly respond to the FCC's beck and call—most people apparently think that they must immediately pay the fine (and in full). There is *no legal requirement* to enlose any monies with the reply, but the reply itself is very important. That they will probably take up to a year to reply to you is reason enough to protest their claim that you owe them money.

The ingredients and approach of your response should take into account:

1. Professional construction and wording of your letter. Type your response, check spelling, sentence structure, and grammar. If you need help, write out a rough draft and take it to any school in your area and ask a teacher to check it over since it's a letter you have to write to the government—almost any person whom you ask will help you out.

2. Offer a candid and frank discussion of the circumstances, if they've got you dead to rights, there is no purpose to be served by lying; honesty is part of your strategy.

3. Include a firm and insistant request for them to reduce the amount of the monies involved in the liability. If you are poor, retired, living on a pension or small fixed income, or operate a small self-employed business, explain the hardships such a liability will cause innocent persons in your family because of the government's removing this amount from the monies you require to survive.

4. Show no falso bravado or macho, no "you can't do this to me" mentality. *Don't* call them idiots or tell them that their regulations are the pits, that their special enforcement people are microcephalic Neanderthals. But on the other hand, take a "business as usual" approach, without displaying any fear or hesitancy in your reply.

5. Admit total ignorance of "the law," following bad examples set by other operators; bad advice; your desire for peer acceptance; that the equipment had been modified before you purchased it in used

condition and you thought it was "stock," etc. But most of all indicate sincere regret and abject remorse for whatever it is you did that they now want you to pay a fine—promise and swear that you have been shown the right path (for which you are evermore grateful) you will henceforth follow Part 95 "to the letter." Renounce and denounce any third parties whom you felt led you into the clutches of Satan.

6. Include no money with your initial reply. In a year or so when they get around to answering you, your liability will most likely be considerably reduced. At that time you can decide if you want to pay the reduced amount or write yet another heart rendering remorse/poverty letter to further stall off payment and possibly attain further reduction of your liability. Maybe your file will get lost or budget cuts will have changed in the amount of time it takes to hear from them about a year to several years!

I am informed by those who have tried this approach that it has been worth the trouble.

Nevertheless, I cannot help but again observe that when one considers that there are millions of operators currently doing one or more things which are outside of the FCC's hopes, regulations,

technical and operating standards in and around 27 MHz, that people who get busted are few and far between. Certainly I am not suggesting that you place yourself in a position to be one of those rare souls, however I did think that it was time to put the FCC's propaganda machine, "X" factors, and official sounding "Notice of Apparent Liability" bogeymen into a more accurate perspective than has been done in the past.

Why the FCC continues to perpetuate their absurd propaganda bluff relating to such matters is beyond me; they obviously don't have the personnel or funds available to do much more than make lots of hollow noise, like a capon crowing over nothing that ever has happened or will happen except in their own fantasies. I'm not impressed.



CB RADIO/S9 FIX'M-UP

TAKE ADVANTAGE OF THESE USEFUL FREE SERVICES:

EVERYONE FOR A.M. "UNIT NUMBERS"?

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

SIDEBAND ID NUMBERS?

They don't use "handles" to ID on the sideband channels, stations use "Sideband ID Numbers." If you're an active Sidebender you may already have several local or regional group ID numbers—if you're a newcomer or a future Sidebender, you may not have any Sideband ID numbers at all! Whether you have a dozen numbers or none at all, it's easy and important to you to get yourself a set of *national* ID numbers from the *SSB Network*, and become a vital part of the growing national Sidebanding movement by affiliating with the oldest (1964) and most prominent national sideband group. Old timers, newcomers, and future Sidebanders should obtain information and an application for national *SSB Network* numbers by sending a self-addressed stamped envelope to: *SSB Network*, P.O. Box 381-XF, Smithtown, NY 11788.

ON THE COUNTERS

S9'S MONTHLY PRODUCT REVIEW

MIDLAND ADDS EXTENSION SPEAKER TO MOBILE CB PACKAGE!

Now Midland offers the Model 5001 40-channel mobile CB with a bonus feature: the Model 21-404 dynamic extension speaker. The 3" speaker with 5-ft. cable puts the reception where it can be heard, sharp and clear.

This "step-up" mobile model is in Midland's "Precision Series" line. It was designed for serious CB'ers who want the latest state-of-the-art equipment. The unit has 14 premium advances, including a human-engineered communications quality microphone, a high-visibility S/R/F/SWR meter, easy-vision green LED digital channel readout (ideal for both sunlight and darkness), and new bevel-shaped controls for non-visual, fingertip adjustment.

Contact Midland International Corp., P.O. Box 1903, Kansas City, Mo. 64141, or mark 67 on Reader Service.



NO TICK TOCK CLOCK

Benjamin Michael Industries, Inc. proudly announces the addition of the 173D Presentation Model Clock to its line of quartz digital timepieces. The 173D will be of particular interest to those involved in the aviation or communications industries where both local and Greenwich Mean Time (zulu) is needed.

The 173D is a fine wall or desk piece which contains two independent digital electronic clock movements. Greenwich Mean Time is displayed in the proper 24 Hour military time format while local time is simultaneously presented in a convenient 12 Hour format with AM/PM indicators. Both large displays are of the LCD type for excellent viewing and very low power consumption. The 173D features quartz crystal accuracy along with one year of operation on a single, standard penlight battery. absence of a power cord makes the unit ideal for wall or desk top locations and battery operation eliminates the need to reset the clock after commercial power interruption.

The 173D is the perfect blend of function and form. The clock features a beautiful solid walnut case which accentuates the rough cut, gold anodized, brushed aluminum face plate. Precious metal contact switches and brass hardware are used throughout to insure long lasting beauty and functional integrity.

Contact Benjamin Michael Industries, Inc. at 65 East Palatine Road Prospect Hgts., Ill 60070.

AUTOMATIC DISTORTION ANALYZER/SG 505

TEKTRONIX, INC., has introduced the new AA 501 Automatic Distortion Analyzer/SG 505 Oscillator system. The AA 501, a totally automatic, total harmonic distortion (THD) analyzer is used with its companion signal source, the SG 505, an extremely low distortion oscillator. Together, they establish a new state-of-the-art in performance by permitting automatic THD measurements to be made quickly without operator assistance.

The AA 501/SG 505 system dramatically lowers the cost of measuring signal distortion by reducing measurement time and eliminating the need for continual manipulation of manual controls by highly skilled operators. Steps previously requiring a skilled operator, such as level setting, tuning, and nulling, are done automatically by the AA 501's internal circuitry. An option allows measurement of intermodulation distortion on signals conforming to SMPTE, DIN, or CCIF standards.

To further simplify the operator's tasks, the AA 501 features a high resolution, 3½ digit LED display which reads out distortion in % or dB (auto-ranging). Signal input to the AA 501 is displayed in dB, dBm, or volts. Detector response is selectable—true rms or average. Four selectable filters—with provision for other user-supplied filters—minimize the effects of extraneous signals. All filters are functional in all modes.

Unique features of the AA 501 include a special "reference memory" circuit which simplifies gain/loss, frequency response, and signal/noise ratio measurements, and a novel "analog-like" bar graph for peaking and nulling adjustments.

Significant specifications of the AA 501 include:

- 10 HZ to 100 KHz fundamental frequency range
- less than .0025% (-92dB) residual distortion & noise
- 3 V to 200 V a.c. voltage autoranged
- dB set reference memory in dB ratio mode
- true rms or average responding in all modes

The new SG 505 Oscillator gives a significant boost to measurement accuracy with ultra-low distortion—0.0008% THD (typically 0.0003%) from 20 Hz to 20 kHz. Continuous dial tuning and vernier frequency control provide fine frequency adjustment

across the full frequency range of 10 Hz to 100 kHz. The SG 505 features extremely flat frequency response—0.1 dB from 10 Hz to 20 kHz—and a precise step attenuator provides calibrated output from +10 dBm to -60 dBm in 10 dB steps plus variable attenuation between steps. Also available, at the touch of a button, is an optional intermodulation test signal conforming to SMPTE or DIN standards.

Packaged as plug-ins for the TM 500 family of modular test and measurement instruments, the AA 501/SG 505 can be readily combined with the user's choice of over 40 plug-in instruments (oscilloscopes,



counters, digital multimeters, amplifiers, function generators, and others) in a single package. This feature is especially valuable in audio measurements where common applications away from the lab bench require portability. Modularity also permits remote testing—such as a studio/transmitter link with only one oscillator. The AA 501 automatically tunes to the SG 505 signal whether housed side-by-side or miles apart.

Commenting on the market for the newest members of the TM 500 family, Business Unit Manager Jim Walcutt noted that "The AA 501/SG 505 system is a natural fit in the communications market, a strong Tektronix customer base, because of its superior performance specifications and its portability." Observing that "the communications industry is one of the most rapidly-growing worldwide markets," Walcutt emphasized that "Tektronix' strong capability in analog measurement tools and our background in digital multimeters (DMMs) enhance the AA 501/SG 505 system's entry into this market."

TEKTRONIX, INC., is at P.O. Box 500, Beaverton OR 97077.

30 CHANNEL CABLE TV CONVERTER

If you subscribe to cable TV and find that you are missing programmes on the mid and super bands—then this cable converter is for you.

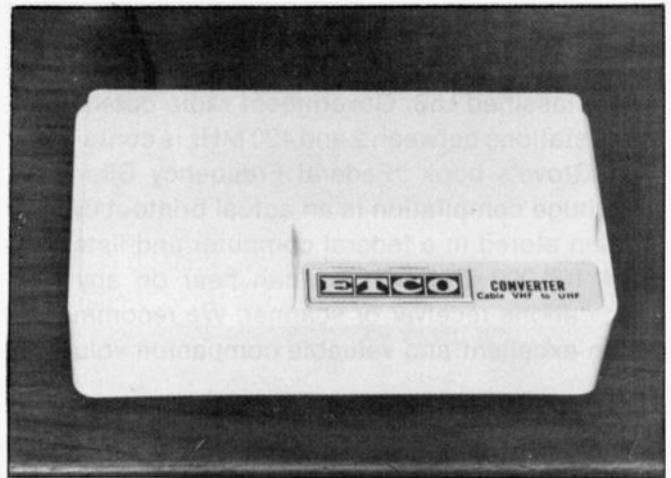
The ETCO AEO47 converts all the channels from 2 on up to the super band for viewing on the UHF dial of your TV set. Those with remotely controlled sets retain the convenience of remote control and those with regular sets merely select all their channels manually on the UHF dial.

The converter may also be used with VCRs to regain programmability when recording from cable.

The ETCO converter comes complete with matching transformer, jumper cables and power supply.

This new TV accessory is available from; ETCO ELECTRONICS, North Country Shopping Center, Plattsburgh, N.Y. 12901.

ETCO will be pleased to send you their FREE 96



page catalog jammed with one of the most unusual selections of electronic parts, gadgets and accessories. This catalog offers the largest selection of cable TV converters and accessories in the USA.



RADIO DIRECTION FINDER

The newest direction finder from Pearce-Simpson division of Gladding Corporation, a leader in marine electronics for over thirty years, is the Gulfstream D model. Packaged in a beautiful white and brushed aluminum case, the unit is an excellent example of the functional yet attractive electronics available today.

Gulfstream D's antenna automatically *aims itself* to the station selected. In the improbable event of an internal failure, the antenna can be turned by hand.

A big LCD display that can be read in any light gives the exact frequency being used, a tremendous advantage in tuning in the right station. The unit operates from 12 volt ship's power or eight flashlight batteries.

Contact Pearce Simpson, 1051 East 32 St., Hialeah, Fla. 33013 or mark 66 on Reader Service.

FREE BOOKLET—K40 CB ANTENNA

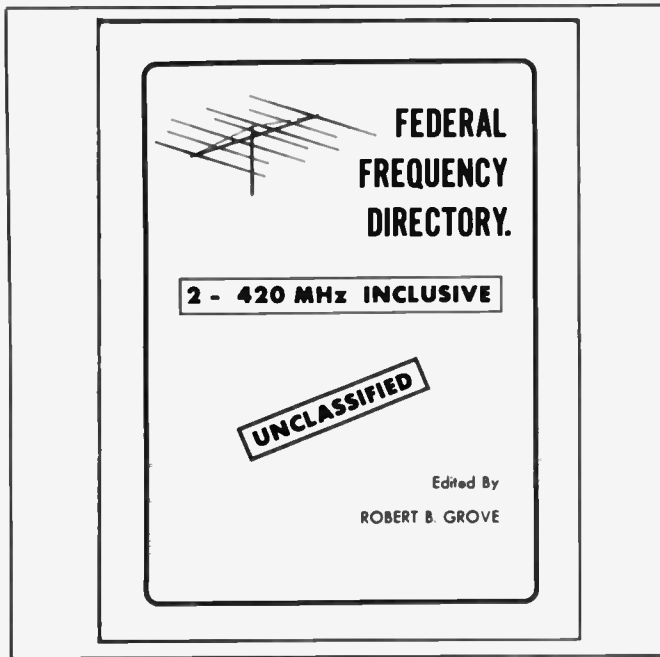
American Antenna, manufacturer of the K40 CB Antenna, is offering a free fact booklet about the K40. The four color booklet tells all about the K40 and includes a performance report detailing test results from consumers around the country who have compared the K40 to other CB antennas.

To get a copy of the informative K40 fact booklet, please write to American Antenna, Customer Service Manager, 1500 Executive Drive, Elgin, IL 60120, or mark 59 on our Reader Service Card.



FEDERAL FREQUENCY DIRECTORY

More than 260 pages of locations and frequencies of unclassified U.S. Government radio communications stations between 2 and 420 MHz is contained in Bob Grove's book "Federal Frequency Directory." This huge compilation is an actual printout of information stored in a federal computer and lists more than 100,000 stations you can hear on any communications receiver or scanner. We recommend it as an excellent and valuable companion volume to



Tom Kneitel's TOP SECRET REGISTRY OF U.S. GOVERNMENT FREQUENCIES. In Grove's book is contained, courtesy of the Freedom of Information Act, all manner of unclassified military frequencies, as well as listings for National Park Service, Dept. of Agriculture, Dept. of The Interior, Postal Service, Energy, Labor, FAA, GSA, and many others even including Treasury, Dept. of Justice, State Department and more.

The information is as accurate and complete as the government's own frequency computer! Listings are arranged according to frequency (in ascending order, starting at 2 MHz) and for each frequency indicated there is information on the agency or agencies authorized to use that frequency along with the city locations of all stations authorized for each agency listed. All in all a lot of information for the communications enthusiast to have available for ready reference!

The Federal Frequency Directory, by Robert Grove, is available from CRB Research, Box 56, Com-mack, N.Y. 11725. The price is \$14.95, plus \$2 shipping/handling, via 4th Class Book Rate Mail. The book may be ordered sent by First Class Mail for \$14.95 plus \$4 for shipping/handling.

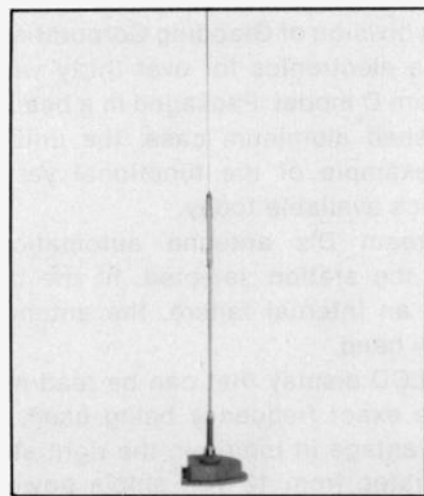
One additional word—this book was published in this 2 to 420 MHz format as a 1-time edition. Copies are getting low and when this edition is sold out it will *not* be reprinted! So you are advised to get it while you can!

NEW HUSTLER CB MAGNETIC MOUNT ANTENNA

The new Hustler model CLM-1 center loaded CB magnetic mount antenna was introduced recently by Hustler Incorporated. The CLM-1 has features that include unique magnet configuration providing much stronger grip per square inch than other magnetic mount designs. The center loaded whip is only 25" and specifically designed and tuned for best operation on channels 9 and 19.

The hi-efficiency antenna has finest quality stainless steel spring with RF center bonding pigtail, triple chrome-plated brass lower section, a removable weatherproof center resonator and corrosion free adjustable stainless steel tip rod for lowest SWR. Supplied with 17' of top quality RG-58 coax cable and factory attached connectors.

The CLM-1 is available now. Further information on this and other Hustler antenna products, in-



cluding amateur, professional and monitor, write: Sales Department, Hustler, Inc., 3275 North B Avenue, Kissimmee, FL 32741.

NEW GLASS-MOUNTED CB TRUCK ANTENNA ELIMINATES CO-PHASING

Called the Moon-Fantom, this antenna is especially designed to eliminate co-phasing so there's no need to install two antennas on a truck to obtain superior performance. It has a 360° pattern. especially designed to eliminate co-phasing so there's no need to install two antennas on a truck to obtain superior performance. It has a 360° pattern.

Moon-Fantom mounts on any vehicle with a windshield. It may also be mounted on rear or side windows. No ground plane is required.

Easy to install in minutes without tools, Moon-Fantom's unique "on glass" design requires no holes to be drilled through the truck's body. Exclusive duo-bond mounting system is designed for quick drive away, plus long distance holding power. The antenna can be removed when desired.

There are no water leaks with the Moon-Fantom, either. The coupling unit and coax are weather-safe inside the vehicle.

In addition to its super range capabilities and glass-mounted convenience, the Moon-Fantom is also an efficient antenna. It can be pushed to 100 watts at the antenna (illegal in the United States), with little or no overheating.



Moon-Fantom is also effective in measurably reducing noise and static.

For more information, contact Avanti Communications, 340 Stewart Avenue, Addison, IL 60101. (312) 628-9350, or mark 61 on our Reader Service Card.

COBRA INTRODUCES WALKIE TALKIES

Cobra is entering the walkie-talkie market for the first time with these two new entries, Models 3GTL and 6GTL.

The Model 3GTL is a 3-channel, 2-watt unit, while the 6GTL is a 6-channel, 5-watt unit. Both transceivers are extremely compact and lightweight, featuring high-impact ABS plastic cases. Size is



9¼ x 3 x 2¼" deep; weight is approximately 2 pounds. Both models are furnished with transmit and receive crystals for the popular walkie-talkie channel 14. Maximum range is assured by the telescopic antennas and the metal grounding plates on the vertical edges of the case that are in contact with the operator's hand when the unit is in use.

Other features common to both models: Squelch control, low battery indicator (LED), external speaker jack, and hand/shoulder straps. The 6GTL, in addition, has HI-LO power for choice of 5- or 1-watt power and a loading coil on its telescopic antenna for greater transmission efficiency.

The walkie-talkies carry on the Cobra tradition of "punching through loud and clear." They are professional-quality units, not toys, and their performance is consistent with that of Cobra's mobile CB transceivers.

Contact Cobra Communications, 6460 West Cortland St., Chicago, Ill. 60635, or mark 67 on Reader Service.

Tomcat's Mailbag

By S9 Editor
Tom Kneitel



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

SAYS THANKS TO S9 READERS

I want to sincerely thank all of the many readers of S9 Magazine for taking the time out to respond to my letter which appeared in a recent Mailbag. I'm sorry that I can't answer each and every single QSL card or letter, but as time goes by I hope to get to as many as I can. In prison here we are permitted to send 10 free letters per month; any mail after that has to be paid for (and that's not too easy here). Also, I'll enclose some homemade QSL's in each letter I send out. Your QSL card and letters are truly appreciated.

Coulson S. Fay,
F-5548-F-BIK,
Drawer K,
Dallas, Pa. 18612

Readers who can send this CB'er a QSL card or a short note to say "hello" will certainly be doing their good deed for the day! Sometimes folks take a wrong turn down the path. It's a great help when they know that they've got some friends rooting for them.

THE "SWL" (ETC.) CLUB SCENE

Back in the late 1930's there was a special concert held in Carnegie Hall. Pete Johnson, Albert Ammons and Meade "Lux" Lewis performed their music, both in groups and as soloists. This was one of the first "serious" presentations of what was then called "boogie woogie." When the trio of artists was first shown the instruments they were to use for the performance,



beautiful concert grand pianos, one of them explained: "Man, we sure have come across the tracks!"

When I received my February (1981) issue of S9 I looked at the Mailbag column on Page 54 and saw that our club's publication, The Lowdown, was quoted by you in S9 as an authority on the topic of low frequency communications (below 540 kHz). The Longwave Club of America has been used as the source of identifying stations on low frequencies before, but never before in a national publication with the prestige and respect of S9/Hobby Radio. Man, we sure have come across the tracks.

W.R. McIntosh, Publisher,
The Lowdown,
Longwave Club of America
Box 33188
Granada Hills, CA 91344

I am always happy to mention groups whose work in various fields is

noteworthy—and while the field of hobby radio is rather large and diverse, in the specific areas of monitoring there are some clubs whose publications appear to me to be well done and of definite value to those tuning in on various frequencies. For low frequency (longwave) pursuits, LWCA is unmatched. For general SWL'ing, I find the publications of the American Shortwave Listeners Club (16182 Ballard Lane, Huntington Beach, Calif. 91649); The Newark News Radio Club (P.O. Box 539, Newark, N.J. 07101), and Speedy (P.O. Box E, Lake Elsinore, Calif. 92330) to be well rounded and chock-full of information of genuine interest to listeners. That portion of the hobby, in particular, has countless clubs and while I haven't seen all of the publications offered by various groups, I do specifically recommend these 3 clubs as being particularly outstanding for the general listener. At the opposite

frequency end of the scale, in the world of scanners, I have found that RCMA (Radio Communications Monitoring Association, P.O. Box 4563, Anaheim, Calif. 92803) has at last outgrown some of its earlier shortcomings and emerged as a serious and worthwhile organization of scanner enthusiasts—they've even added a column with "utility" reports from regular high frequencies heard via communications receivers. For more information on joining these worthwhile clubs, I suggest contacting them directly and requesting further information and application forms. Be sure to say I sent you! And don't forget to enclose a self-addressed stamped reply envelope to accompany your request!

PASS THE KETCHUP, PLEASE!

I was somewhat amazed to read in a recent *Mailbag* column that the worst hamburger you ever had was at a particular A&W Root Beer stand. What a let down. I took you out to dinner at the Florida National Thunderbird CB Jamboree a couple of years ago and we feasted on epicurean delights such as *Chateau Briand* and *Coq au Vin*, which you said you loved. I have since then carried this picture of you in my mind—a gourmet, an epicurean purist and bon vivant who relishes fine cuisine prepared by master chefs. Now I find out that you hang out testing cholesterol-burgers at root beer stands? Eccch! Say it isn't true! Don't destroy this image I have of Tomcat. You really do love *Coq au Vin*, don't you?

Dr. M.W. Reynolds, SSB-4-C,
Naples, FL

Sure I love French steaks and ducks, but mostly when someone is generous enough to invite me to dinner. Fact is that my favorite eaterie in the western hemisphere is Shorty's Barbeque (Perrine, Fla.) and the main reason I went to the Thunderbird Jamboree was to get another chance at Shorty's ribs and chicken. Basically, I'm an unabashed junk food junkie, preferring a Whopper any day to French duck boiled up in wine or whatever the hell it is they do to it. You are apparently unaware that I am the person who first discovered folding a whole pizza in half and eating it like a jumbo taco. Happy Aika-Seltzer!

... Use S9 READER SERVICE

GAINING CONTROL?

I understand that many power companies perform remote control circuit switching and other similar functions by means of carrier current along the power lines. Is this being done on any one particular frequency?

F. Ramon,
Abilene, Texas

There is no specific single frequency, however recently there has been a petition sent to the FCC from the power companies which, if approved, would give electric utilities unrestricted use of the band between 10 kHz to 490 kHz for their powerline carrier operations. The power utilities, of late, have been more and more demanding for the FCC to grant them special treatment and concessions, citing the alleged energy shortage as their reason for requiring various favors, including the use of speech scramblers on some voice channels. However this request for unrestricted low frequency carrier current use has stirred up a bit of a tempest, mainly from aviation interests which have complained to the FCC that aviation navigational systems operating in portions of this band can't tolerate the interference such unrestricted use would generate. Fans of the 1750 Meter hobby band and all low frequency DX listeners would also like to see this scheme squashed without having to try to filter them through a lot of radio control garbage.

ALL OVER THE PLACE!

How about a rundown on the communications frequencies you normally either monitor or operate? I've been curious for a long time but you never seem to mention this information.

THE HERMIT
Palo, Iowa

Besides a whole bunch of ever-changing scanner frequencies and some favorite medium frequency shortwave frequencies, my normal operating frequencies are: K2AES on 146.52, 223.5 and 446.0 MHz FM; KM-4973 on 122.9 and 123.1 MHz AM; KNY2AB on 49.86 MHz CW; "QQ" on 181.5 kHz CW; and KBAR-3956/SSB-13 on 27.155 LSB. At times when mobile I'm TOMCAT on either CB Channel 19 or 12 AM, that is unless I'm running the rig on Sideband! On the other hand, I have been known to QSY on occasion—but those are my normal haunts.

The Knight Stick™ Style 5054/CB Mobile 4' Whip Antenna

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Note to Hams:
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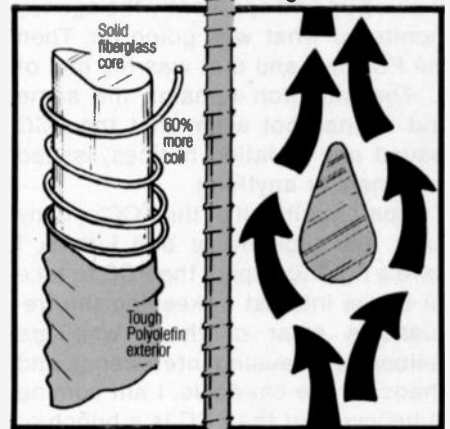
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ELECTRONICS AND FIBERGLASS DIVISION
Antenna Group/P.O. Box 733, Newberry, S.C. 29108

CIRCLE 15 ON READER SERVICE CARD

S9 • July 1981 • 39

PLEASE HEAR THESE PLEAS

I always hear about CB'ers who are given considerable hassle by the FCC for all sorts of violations of this or that rule. Working skip has brought unhappiness to countless licensees. And yet it seems that maybe their efforts are perhaps more urgently needed in other areas.

For instance, the local call frequency in Redwood City, Calif., is Channel 4 and because of several foul-mouthed bad apples who call themselves the "Hymen Breakers," the channel has now become useless. They insult and jam anybody who isn't an HB'er. Any attempt to transmit by a non-member often brings about a dead carrier or a musical interlude. The FCC knows about the HB'ers and many area operators have filled complaints against them. A petition was even circulated in Redwood City. After the petition was filed, the FCC finally showed up and apparently the agency monitored what was going on. Then the FCC left and that was the end of it. The situation remains the same and it does not seem that the FCC issued any violation notices, issued any fines, or anything.

I comply with all of the FCC's many rules and regulations and I think I have a right to expect the FCC to take an active interest in keeping the frequencies clear of those who are deliberately causing interference and chaos on the channels. I am coming to believe that the FCC is a bunch of nitwits, but, even so, they are being paid to do a job. But it seems that they just don't care. I'm an old timer on the CB channels and I am sorry to see these things taking place. You've helped others. Can you help us in the Redwood City area?

(name withheld by request)
San Carlos, Calif.

You got it right in your opening paragraph—the FCC's monitoring efforts are a total disaster. They are primarily interested in pursuing rule violations which one of the pinheads there has determined are more serious than others. "Victimless" and "complaint-less" violations such as running a few watts overpower, being out of the band on an otherwise vacant frequency, shooting skip, etc., head this list. People such as yourself, who are victimized by deliberate organized jamming and

dehumanizing persecution from other operators, are obviously not on their list of people to help. Sorry about that, but what you are just now coming to believe about the FCC's monitors is something lots of people have felt for a long time. I wish I could offer you some ray of hope in resolving the situation, but you've already seen the FCC's interest in your petitions.

TRY IT, YOU'LL HATE IT!

Why is it that only a certain privileged few groups or publications are permitted to submit petitions for change in the CB rules to the FCC? I've got a couple of ideas which I think would improve the CB service and it doesn't seem that I am eligible to present them to the FCC. Who comprises this inner circle of those with the right to formally ask for change?

John Littlebear
Hartsel, Colo.

I think you've not given yourself credit for some of the options which are open to you. Anybody can submit an idea or petition to the FCC regarding CB or any other radio service. Of course there is a suggested course of action in how to go about doing it on a formal basis (how many copies to submit, where to address the material, etc.) and there's no guaranteeing how far it might get before it is bumped out of existence. It might self-destruct rather early in its life, since the FCC's Bureau Chiefs apparently can cause incoming petitions to take the deep six without them getting any further along their route. With luck, the petition might get to various other stages such as having an FCC Notice of Inquiry prepared, or even getting the FCC Commissioners to vote on it. At best it's a long arduous, and rather precarious road between the time you send in an idea and the point where the FCC Commissioners might eventually vote on it. Only a minute percentage of submitted ideas make it to that point, although a very large number of proposals, suggestions, and petitions are sent in each year. Some, for instance, which were recently submitted but which died early deaths (they were "dismissed" by the Chief of the Private Radio Bureau) included a suggestion that new CB frequencies be opened up in the 48 to 50 MHz band, and another petition which called for CB to be relocated from 27 MHz to the band bet-

ween 335.4 to 400 MHz! You've got a "pet" idea of your own? Go right ahead and send it in to the FCC!

RIPPED ON, RIPPED OFF

The FCC's Phase II Refund Program appears to be just one more ripoff and fraud. Today I received the application which informed me that licenses for which they had collected \$4 (granted after March 1, 1975) don't qualify for a refund! I called the FCC to ask why the illegal \$4 fee they had hit me with was not to be refunded. I was told that "it would cost the FCC too much to process the refund." I told them that they had collected it legally and the cost of returning the money to me was their problem. It was my understanding that the FCC was supposed to return all of the fees which they had collected, not some, but all! Even if it was only \$4, it's the principle of the thing and they have no right to keep these funds; can you imagine the total amount of all of the \$4 fees they decided to keep and not refund? This stunt, hard upon the heels of their handling of the Sideband petition, really did the trick. As it turns out, aside from not paying interest on the monies they have sat on all of these years, the refunds they are making are only partial at best. For instance, they collected \$20 for maritime licenses, and are refunding only \$11.58; Industrial Land Transportation licensees who paid \$20 can get back only \$9.75! Suppose that same \$20 would have been invested for this long period of time—even put in a regular passbook savings account. Instead of having your money doubled, Uncle Charlie has figured out how to slice it in half! I hope that people will write to their congressional representatives about this trick. It should be a crime promising everything and coming through with nothing.

Keith R. Haley, Jr.
Bellevue, Mich.

Maybe they figured that since the inflation rate has cut the value of a buck down to half of what it was a couple of years ago, they are only intending to pay back at 50% off! I mean, let's face it, \$20 of ten years ago buys only \$10 worth of stuff today, right? So that's yer refund! For them to do the same trick with \$4, cutting down to half, would obviously be absurd! The \$2 would cost more than the electricity and personnel to run it through the FCC's evil computer! And, you're right, it is a ripoff!

SERVICE WITH A SMILE?

I've been on CB for more than 10 years, and have long been a reader of S9. Your comments concerning the FCC have prompted me to bring to your attention harassment which I have received from the FCC. I have a business which supplies various types of radio equipment, and the FCC regulations for the many radio services seem able to be used to stop me from getting a transfer or a new license. This license application has been in processing for longer than a year, and the only response I can get from the FCC is a form letter talking about a 6-week wait. I've already received more of these letters than I need. The problem seems that nobody at the FCC really wants to help the public. This is easily tested by simply calling them on the landline—they think nothing of putting you on "hold" for over an hour! The FCC's Chairman won't answer letters addressed to him; all it brings is another form letter from the office which you have already given up on. The truth is that they just don't care.

Dale E. Reich,
KJP-0146/KE-2558

Komm-Link Communications
Testing Lab
Seville, Ohio

Last year I filed an application for a license in one of the mobile radio services and after an extremely long wait without results I finally called them to find out what was wrong. After being handed off from one dumbbell to another I finally was able to make contact with the person who was sitting on my application. Although the FCC had never contacted me about it, she told me that the reason that my application was being delayed in the processing mill was because I had not specified that I would be using type accepted equipment as is required. I pointed out to this lady that the equipment was, indeed, type accepted and that I had entered the FCC's own type acceptance file number right on the application. She said that she had seen that number, but she didn't have it in any of her equipment records and thought that maybe I had just made it up. I then checked with the FCC office that issues those type acceptance numbers, and they had the number 100% correct in their records and confirmed that there should not have been any reason for the licensing people to

be sitting on my application. After about 6 more phone calls to various drones, computers, and disinterested parties I was ultimately able to get them to process the license. How can you say that they just don't care? They do care, except that you've got to take them by the hand and walk them through the paces.

CALLING ALL MOUNTAIN CLIMBERS

About 2 years ago you mentioned that because of a shift in the river bed of the Rio Grande river there had been created a rather large island which did not seem to belong to either the United States or Mexico. You said that several individuals had claimed sovereignty over the island and that there was some talk about establishing a type of CB Paradise Island there where operators could run lots of power and be somewhat creative about frequencies, all outside the clutches of the FCC. What became of this idea? You never mentioned it after that first time, and I'm waiting—I'm waiting!

Randy Martines,
Odessa, Texas

It wasn't mentioned again because I never heard anything more about the idea from those who had first announced it. Maybe there were problems encountered in establishing their claims to the island as an independent entity, or perhaps it's back again under 10 feet of the lower Rio Grande! All is not lost if you're willing to travel, however. A European correspondent tells me that the tiny nation of San Marino has come up with a way to add to their revenues from selling postage stamps to collectors and bringing in tourists. It seems that San Marino has recently legalized CB radio; the authorized operating band runs from about 26.900 MHz to 27.900 MHz, and the operating rules and regulations are similarly generous and friendly to operators. Not only that, while San Marino is only 24 square miles in size (it's about 140 miles due north from Rome, Italy), practically the whole place is located on a goodly sized mountain which offers some prime DX locations. Sounds promising—imagine what you could do there with a Rice Burber and a 'rake—and all nice and legal like! And just think what a commotion you'd make by offering to be a country that nobody has ever worked!

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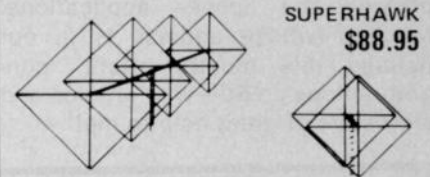
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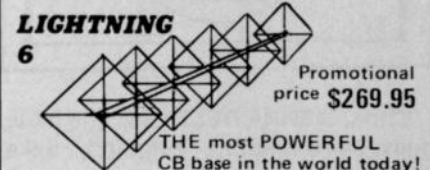


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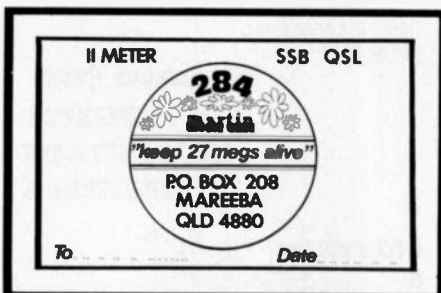
HELLO SKIPLAND!

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

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

OVERSEAS MAILBAG

Marcelo Lima, who resides in the capital of Brazil, tells us that in Brazil the stations are permitted to run a full 7 watts on AM and 21 on Sideband. There are 60 channels available (Marcelo didn't specify them, unfortunately) and his own personal tastes run towards operating on SSB. The Brazilian version of the FCC is known as "Dentel," which assigns CB'ers an "instant" temporary number because of a somewhat lengthy delay in processing the license applications. Marcelo (whose address is in our listings this month) offers "congratulations on S9—your articles and stores are of great help to me!"



Chris, SIERRA DELTA 25, who hails from Northampton, England, asks this column to pass along special thanks to Linda (APRIL 823) of New Hampshire, and Jim (MA 44) for introducing him to S9! Chris says he QSL's 100% and offers his address as: Chris Darlington, 51 Southolme Ct., Northampton, England. We suggest that, as with all CB mail going to England, cards be sent "undercover."

Wilhelm Johannes, SSB-052/9-E-16,

writes from Yogyakarta, Indonesia, that last October CB radio was finally approved by the Indonesian Minister for Communications. Any resident may apply for a license, and the frequencies used are equivalent to those long known to American and Canadian operators, with Channel 9 set aside for emergency use. CB transceivers must be type approved by the government and must meet similar standards to those established for American equipment. In actuality, CB radio was started on an unlicensed basis in Indonesia way back in 1976—starting out with youngsters as the first operators. Eventually adults picked up on it, began forming clubs. As the popularity of the illegal hobby started to spread, owning one of the hard-to-obtain CB rigs became quite a status symbol. It wasn't long before people began figuring out how to bring sets into the country without very much difficulty and the channels even started becoming crowded. The government started to complain about the illegal CB rigs and complain that they were causing inter-

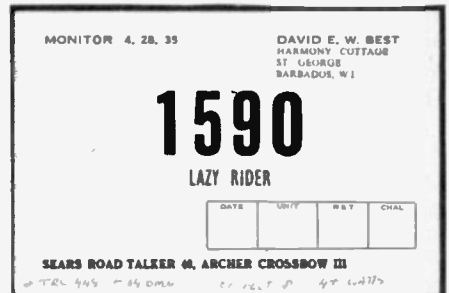


ference to licensed communications, although CB'ers loudly countered with the sentiments that they should be legalized too. After a few years the government went along with the idea.

The opening chapters of that scenario seem to duplicate what has been taking place with CB in England. English CB'er Peter Garde tells us that there must be about 500-thousand illegal/unlicensed CB'ers on the air there, with about 500 to 600

new stations arriving on the air each week. At this point the government seems willing to legalize CB if the operators are willing to move the 926 MHz, although some are saying that 40 MHz might be offered if CB'ers there continue to say nasty things about 926 MHz possibilities.

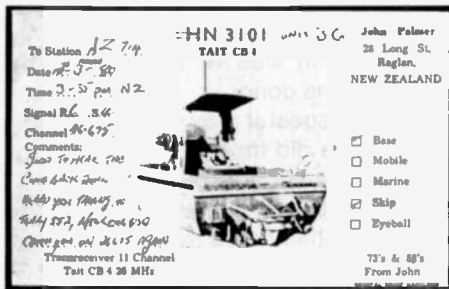
France is getting ready to legalize CB with 2 watt FM on 27 MHz, 22 channels. Some observers think this could get CB legalized on 27 MHz in England.



OVERSEAS ADDRESSES

- SSB-0168, Graham Habler, P.O. Box 260, Maryborough 4650, Q'Land, Australia
PX9-5720/PT2WBC, Marcelo Lima
Caixa Postal 07/1217, Brasilia 7000, Brazil
Unit 284, Martin, P.O. Box 208, Mareeba, Qsld. 4880, Australia (100% swapper)
Michael S. Reyes, P.O. Box 218, Belize City, Belize (Central America)
1-WHISKEY-TANGO-13, Henry, P.O. Box 6, Oud-turnhout 2360, Belgium
Ken, P.O. Box 619, Francistown, Rep. of Botswana, Africa (Ken gets many requests for QSL's and has a large backlog to plow through, so it may take a while to hear from him)
MIKE SIERRA 10, Marc, P.O. Box 14, Ternath, 1740, Belgium
Gan, P.O. Box 25, Nieuwstant 61180, Netherlands
LIMA CHARLIE, Luca, 3 Italy Street, Alessandria 15050, Italy
YANKIE ZULU, Rosana, P.O. Box 6, Esneux 4050, Belgium
LIMA MIKE, Leon, P.O. Box 58, Maaseik 3680, Belgium

Artuo, P.O. Box 16, Locri 89044, Italy
 16-E-103, Edmond, P.O. Box 5, Torhout 8100, Belgium
 16-W-318, Chris, P.O. Box 10, Mere 9420, Belgium
 NOVEMBER INDIA MIKE, Horst, P.O. Box 9, Fraudental A-8523, Austria
 14-WW-10, Gene, P.O. Box 7, Guyancourt 78280, France
 UNIT 156, Robert, P.O. Box 2, Eisden 1, 3640, Belgium
 UNIT 555, Ferry, P.O. Box 60, Brugge #1, 8000, Belgium
 UNIT 110, Donald, P.O. Box 2, Boutersem 3370, Belgium
 SIERRA KILO 2, John, P.O. Box 2, Wilnis 3648-EG, Netherlands
 VICTOR TANGO SIERRA, John, P.O. Box 7, Filabosi, Zambia, Africa (send "undercover")
 JULIET CHARLIE, Jonny, P.O. Box 36, Keitum 2280, West Germany
 Manolo, P.O. Box 129, Barcelona, Spain
 2-ALFA-79, Luis, P.O. Box 47, Batatais, Brazil 14300
 TANGO DELTA 15, Jovani, P.O. Box 1691, Guatemala City, Guatemala, C.A.
 BRAVO LIMA, Geo, P.O. Box 7, Lokeren 9100, Belgium
 1-ALFA-TANGO-571, Maximilian, Giorgi #74, Pesaro 61100, Italy
 UNIT 824, John, P.O. Box 18, Lot, 1660, Belgium
 BRAVO LIMA 9, Leon, P.O. Box 13, Rixensart 1300, Belgium



1-BW-03, Claudy, P.O. Box 242, Namur #, 5000, Belgium
 OSCAR 204, Manolo, P.O. Box 129, Badalona, Spain
 NOVEMBER LIMA 179, Luciano, P.O. Box 53, Noli-Ligure 15067, Italy
 UNIT 106, Lee, P.O. Box 100, Kingston 8, Jamaica, West Indies
 UNIT 408, Tom, P.O. Box 1106, 6450 Hanau 1, West Germany
 BRAVO TANGO 95, Ivo, P.O. Box 21153, Lisbon 1129, Portugal
 ARP-841, Victor, Gregorciceva 18, Piran 66330, Yugoslavia



UNIT 1590, David W. Best, Harmony Cottage, St. George, Barbados, West Indies
 3-E-482, Maurizio, P.O. Box 345, 48100 Ravenna, Italy
 SSB-052, Wilhelm, Sekip L-4, Yogyakarta, Indonesia
 SSB-0110, Malcolm O'Brien, Erin Road, Siparia, Trinidad, Trinidad and Tobago, W.W.
 TSB-731, Bill, P.O. Box 263, Wynard 7325, Tasmania, Australia
 ARP-1023, Diva, Ryydyinkatu 64, S.F., Tampere 33400, Finland
 DELTA KILO, Tony, P.O. Box 193, 2402 Leiria, Portugal
 Leo, P.O. Box 61, 299 Setubal, Portugal
 UNIT 240, Walt, Aptdo. 7, La Ceiba, Honduras, C.A.
 3-E-15, Robert, P.O. Box 46, Novi 15067, Italy
 HFA-99, Bob, P.O. Box 255, Sydney, N.S.W. 2164, Australia
 KBC-23, Tony, Forest Farm, Armidale, N.S.W. 2350, Australia
 UNIT 348, Jack, P.O. Box 10023, Freeport, Grand Bahama Island, Bahama Islands
 UNIT 500, Charlie, P.O. Box 21178, Mexico DF, Mexico
 P-15, Arturo, P.O. Box 292-2, Santo Domingo, Dominican Republic, W.I.
 HR-123, Mose, P.O. Box 1598, Tegucigalpa, Honduras, C.A.
 Julius, P.O. Box 1179-POS, Trinidad, W.I.
 UNIT 118, Jee, P.O. Box 52, Bullday, Jamaica, W.I.
 3-E-241, Cladio, P.O. Box 11, Legnago 34045, Italy
 UNIT 468, Arnold, Cole Bay Union Rd. #1, St. Marten, Dutch W.I.
 LIMA GOLF 66, Christopher, P.O. Box 1314, Biedenkopf 3560, West Germany
 KILO ROMEO, Kay, P.O. Box 1, Bordecholm 2352, West Germany
 GOLF PAPA, Gert, P.O. Box 127, Lunteren 6160, Netherlands
 ALFA BRAVO, Gene, P.O. Box 15, Ninove 9400, Belgium
 ROMEO DELTA, P.O. Box 2, Wellin 6920, Belgium

3-E-721, Mike, P.O. Box 46, Volvera 10040, Italy
 16-E-120, Alain, P.O. Box 273, Namur #1, 500, Belgium
 16-WW-336, Ed, P.O. Box 63, Turnhout 2300, Belgium (Collects state flags, patches, stamps).
 BRAVO 08, Joe, P.O. Box 28015, Barcelona, Spain
 JULIET LIMA, Javier, P.O. Box 116, Coslada, Madrid, Spain



RADIO AMERICA 502, Gunther, Landstrasse 55, 9494 Schaan, Liechtenstein
 UNIT 2251, Bob, P.O. Box 05-129, San Salvador, El Salvador
 CBL-001, Pedro, P.O. Box 5172, 1704 Lisbon Codex, Portugal
 LIMA-874, Ron, P.O. Box 1041, 3221 Haukerod, Norway
 47-E-62, Flemming, P.O. Box 2, 9670 Logstor, Denmark
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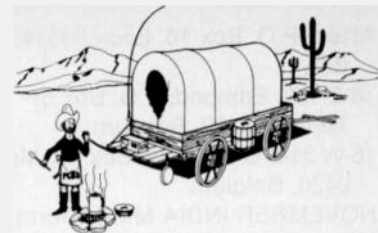
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THE CB PIONEERS' CORNER



By Judy, SSB-99/PCBS-99

OUT OF THE MAILBAG

Pioneer fan Leeland G. Farnham, who writes from Nebraska, wrote to say that he got interested in CB radio because he heard some of the mid-70's CB truckers' songs and started noticing CB being displayed on TV programs such as *Movin' On* and others. He was wondering, inasmuch as CB had actually been around for at least 15 years before it hit the big time, if there had been any earlier attempts at CB songs or TV programs which featured CB equipment in use. It's a fine question and as for songs I would have to say that the only ones of which I had ever been aware were independently produced LP's which were advertised only in CB publications and probably never got played on the radio (except possibly over someone's CB!). The only one which comes to mind was done in the late 60's or early 70's by a Canadian group called *The Hush Puppies* and I recall that it was actually quite good and, in fact, better than some of the junk which got lots of airplay in the mid-70's.

As for TV programs, I can recall that CB was regularly used on the ABC-TV police series called *Naked City* which was probably about 1962 or '63. This series, which starred Paul Burke, Horace McMahon, and Harry Bellaver, seemed to have a Lafayette CB rig being used in at least 3 out of 4 programs, however it was never clearly explained that the equipment was, in fact, CB and not part of the police radio system. The general impression was that the equipment was police 2-way gear. However, even before *Naked City* came



along there was an earlier program which had *Polytronics* CB gear in regular service. Does anybody out there know which program it was? If you guessed *77 Sunset Strip* you're obviously older than 21! This ABC-TV program, which starred Roger Smith and Ephraim Zimbalist, Jr., used CB starting with their 1961 season—and the station on the show was actually assigned a callsign which was used whenever the CB was shown being operated. The fact is that it was the hope of many CB industry people that the use of CB on this very popular program would get the viewers out of their living rooms and down to the nearest electronics store to find out more about CB radio and buy some of them. As I recall, those manufacturers who were active in the early CB industry at that time spent some amount of money placing ads keyed into the use of CB radio on the TV program. Well, either the writers of *77 Sunset Strip* just didn't know enough about CB radio to make it glamorous, or else it was just not yet an idea whose time had come, and would not come for another 14 or 15 years until someone realized that sticking the rig into an 18-wheeler, and then singing about it, would do the trick!

Next we heard from "R.H.S." of Tupelo, Miss., who says that by now CB radio has spent long enough cooking on the griddle to have some of its very own home-grown heroes. R.H. suspects that, under such circumstances, it's rather odd that nobody has ever come up with a CB Hall of Fame to honor past, present and future CB leaders whose contributions to the state of CB'ing have been of significant service to the hobby.

I know where you're coming from, R.H., and I think that you've got a really good (but not very original) idea there. When I say that the idea isn't altogether original, I do not mean in comparison with the Baseball or other various Halls of Fame; I mean to compare it with the supposed or alleged "CB Hall of Fame" which turned up at

least once before in somebody's mind in late 1970 or early 1971. Actually the CB Hall of Fame was to be a part of a larger entity by a group known as the CB Historical Museum, all to be established by a group known as the Citizens Radio Association of Rockland Inc., of Nanuet, N.Y. According to the way they are telling it back in 1971, they had already purchased a 20 acre tract of land in a place called Kerhonkson, N.Y., and were raising money to erect a building there. As reported in *S9's* March '71 edition, they had supposedly a large amount of material ready to put on display including early CB rigs, old QSL cards, early CB books and magazines. In addition to the CB Hall of Fame was to be a manufacturer's display area, a schematic diagram reference center, the world's largest QSL collection, and a Hall of Famous CB Firsts.

In 1971 they were asking that CB'ers all send in \$1 clipped to their CB QSL card towards the "building fund." The QSL card would become part of—you guessed it—the world's largest CB QSL card collection, and each dollar would buy a cement building block, upon which was to be painted the name of the donor.

In retrospect it may well be that the QSL cards did indeed become part of the world's largest collection.

Well, that was the last time anybody I ever met had heard from, of, or about this grand scheme, however the idea of a CB Hall of Fame did make more curious flicker in late 1976. In December of that year someone in New Jersey tried to sell fancy certificates attesting to supposed election into a non-existent CB Hall of Fame. It was really intended as a joke (although a \$6 one); you could have one made up for yourself or give as a gift to a friend. It was abandoned very soon after it had commenced.

Now that I think about it, the original CB Hall of Fame idea, with the 20 acre plot of land wasn't too much to laugh about—although I suspect that someone in Kerhonkson, N.Y., is sitting

there on a 20 acre tract of land just slappin' his knees and giggling like ol' Dentist Broccoli the day he left open the valve on the laughing gas.

CB Hall of Fame? Sure, it's still a good idea, but I think I'll find out a little more about it before I send away another dollar—or aren't cement blocks a buck apiece anymore?

Jeff, the Manhattan Meany, of Eaton, Ohio, writes to say that he recently acquired an old *e.c.i.* 100 watt linear. The rig is missing its top and bottom covers and certainly, as a bit of antique radio gear (circa mid-1960's) it deserves a better fate than its present state of semi-shambles. Jeff wonders whatever became of this company since the days when it was located in Mt. Vernon, N.Y. Basically he wants to see if he can acquire a set of upper and lower covers for his unit.



I can tell you that *e.c.i.* has been removed from Mt. Vernon to those many years, Jeff. After moving to New Jersey as the Courier Division of the Whittaker Corporation, the company was later to become part of Fanon Electronics. At this point, the current holder of the lineage is Fanon/Courier in California, however I would indeed be surprised if they could supply parts you require to get your unit looking in top shape again. As a bit of trivia, some of the original *e.c.i.* Mt. Vernon employees are still employed by Fanon/Courier, most notably the venerable Miguel, a very talented engineer and quite probably the original designer of your device!

I don't know if the photo of an *e.c.i.* linear I dug out of the files is the one you have, Jeff, but this was their big band blaster and I think it was a 100 watter. If this is your unit, it didn't have a top and bottom plate, the front panel and attached chassis slid in and out of a chrome sleeve which completely surrounded the unit's top, bottom, and sides. This sleeve was ventilated with a zillion little holes, like a screen effect. One further word about this *e.c.i.* afterburner—it could knock the socks off a corpse at 20 miles range!

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FERROEQUINOLOGIST AT LARGE



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

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

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

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

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

Richard Cowan, Publisher
S9 Magazine
14 Vanderventer Ave.
Port Washington, N.Y. 11050

Tel. (516) 883-6200

The Radar Column

by "Jammer"

MICHIGAN SUPREME COURT HEARS RADAR DETECTOR CASE

The Michigan Supreme Court heard oral arguments in a case challenging the constitutionality of the 1929 statute interpreted by a lower court as a prohibition of radar detectors. This case marks the first time the state's highest court has addressed the radar detector issues.

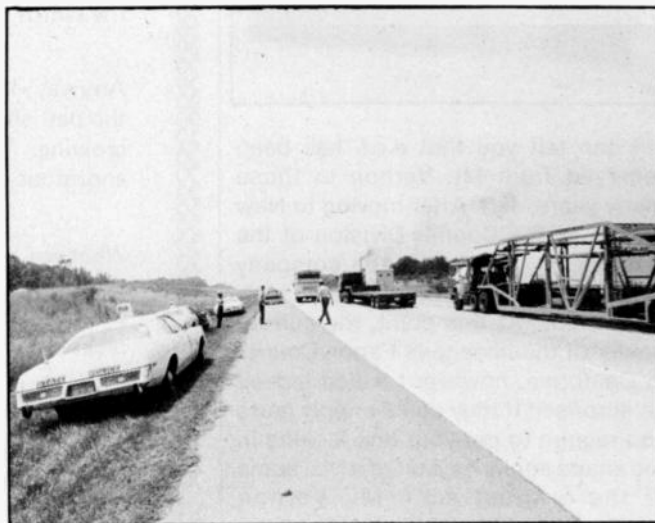
In Lansing last December oral arguments were presented in *People v. Gilbert*, a case in which a motorist was arrested for having equipped his vehicle with a radar detector. The arrest was made under statute MCLA 750.508 enacted in 1929 by the Michigan legislature.

The case is unique not only because of its precedence in the Michigan Supreme Court, but due to the very decision by the Supreme Court to hear the case. A ruling rendered in 1979 at the appellate court level dismissed the charges against motorist Daniel Gilbert, but clarified interpretation of the statute to apply to radar detection devices. Although resulting in a dismissal against the defendant, the lower court decision has nevertheless been challenged by attorneys as a matter of public interest. Defense attorneys contend that the lower court's interpretation of the law as hence-forth including radar detectors is tantamount to drafting a new law. A legislative body alone is empowered to do so, however. The Michigan legislature has, in fact, defeated repeated attempts to pass radar detector bans in the past. Attorneys cite these defeats as a clear indication of the lawmakers' intent, rather than the appellate court's decision regarding a 50-year-old law.

Jesse Bacalis and John Honeyman, attorneys for the defendant cited several constitutional points at this week's Supreme Court session. Kantner & Smith, attorneys for a manufacturer of radar detectors acted as *amicus curiae* or "friend of the court" in the proceedings. Among the legal points argued is preemption of the Constitution which, by congressional mandate, restricts any state from legislating in the area of radio reception. Radar detectors are passive

devices which do not interfere with police radar but are capable of receiving signals emitted by the radar. The Federal Communications Commission in their Communications Act of 1934, written five years after the Michigan statute, expressly forbid interference in any legislation of the airwaves by any state. In Communications Act guidelines, free access to reception of all airwaves is firmly established.

Gilbert's attorneys also charge that the statute is unconstitutionally vague, a charge upheld by the earlier lower court ruling. The law's phrase "radio



receiving sets", claims the defendant, is not intended for application to radar detectors, a point the lower court denied by expanding the statute to include the devices. The law was originally drafted in 1929 to restrict audio transmissions over the assigned police radio frequency and reception of police voice signals. Other users have since been assigned the same frequency used by Michigan law enforcement agencies resulting in added receivers in the 10.525 GigaHertz range. Likening communications to a coin, attorney Jesse Bacalis said in his oral argument, "The coin has two sides, just as for every transmitter, there is a receiver. And just as the coin cannot be split, one cannot split the reception of signals from the transmission of them." In addition, the defense used

to bolster their contentions the 1979 redraft of the FCC's Rules and Regulations which emphasizes that no frequency is assigned exclusively for police use.

Another defense claim of vagueness was charged against the law which carries criminal penalties of a \$500 fine and/or one year imprisonment and therefore must be strictly construed. In that no distinction is made between equipping vehicles with radio receiving sets and possessing the devices, attorneys claim that yet another constitution guarantee—due process of the law— is denied.

The constitutional issues as well as other legal points presented in the Michigan Supreme Court have been the source of litigation in Connecticut and Virginia where radar detector prohibitions also exist. These same issues have prevented passage of similar bills in 33 other states. Virginia's law, which has been rendered virtually unenforceable as a result of earlier court rulings, has been challenged in the federal courts and a decision is expected by the first of the year. The federal court ruling may influence the Michigan Supreme Court decision which requires a majority opinion from the seven justices who heard the recent oral arguments.

POLICE VICTIMIZED BY "HOT" RADAR GUNS

Some Detroit, Michigan area police departments may be guilty of using stolen goods to catch traffic violators, the state says.

Carl Spindler of Farmington Hills is charged with stealing at least 22 radar units with an estimated value of \$60,000 from Kustom Signals, Inc., a Kansas firm for which he once worked.

Spindler, fired by the company last June, allegedly continued to represent himself as company salesman and peddled the stolen units to police and electronic firms in Ohio and Michigan.

Police confiscated 20 of the radar units, mostly model KR-11's valued at more than \$3,000 each, from a garage rented by Spindler.

Spindler was formerly in charge of sales for the company in Michigan, Ohio, Indiana, and Illinois. He pleaded innocent to the charges.

RADAR-BLANKING DEVICES APPARENTLY ILLEGAL

Speeders who use devices that transmit signals to "blank-out" radar signals are violating the Federal Communications Commission regulations, an FCC official says.

Some devices now on the market transmit a signal that causes a radar to show a blank reading.

The devices differ from radar detectors, which only receive signals.

Jesus Chairez, FCC public contact representative in Dallas, TX says the devices are illegal and definitely prohibited because they violate the Communications Act of 1934 and other FCC regulations.

However, the FCC has a problem with catching violators. The long monitoring truck in the midwest is currently in Nebraska. Although the truck moves around the country, chances of catching violators are slim.

The Dallas Department of Public Safety cannot arrest a motorist for using the equipment because it is not authorized to enforce FCC regulations!

POLICE TO ADD MORE SPEED TRAPS

Atlanta, Georgia police want to add 220 city streets to the list of approved spots for radar speed traps.

The new sites would be added to the 13 approved radar locations in a six month old law enforcement program that the city's top traffic officer considers a rousing success.

Captain C.V. Forrester, Commander of the Atlanta Police bureau's traffic unit, says some of the 13 present radar sites may be worn out. He says it used to be you could keep five officers busy writing tickets. Now, he says, two or three officers might be just standing around.

Atlanta's two radar equipped police cars went on the streets in April, making Atlanta the first city in the state to receive radar certification and approval under a new state accreditation program.

The state accreditation process grew out of criticism of the reliability of the radar units.

Forrester estimates that 10 to 50 tickets an hour are issued every time a radar unit sets up shop.

SUIT FILED AGAINST "SPEED TRAP"

The town of Bauxite, Arkansas is the target of a \$1.25 million class action lawsuit that lawyer George Ellis (of Benton, Arkansas) described as a "frontal attack on an old American institution, the speed trap."

The lawsuit was filed on behalf of Eddie Jones of Bauxite but designates a class of plaintiffs "estimated to number several thousand individuals." The lawsuit says the group includes anyone who has been fined and/or forfeited a bond in Bauxite or anyone who, as a result of Bauxite court appearances, has paid legal fees or experienced higher automobile insurance rates.

CHP CHIEF GIVES UP ON RADAR ACQUISITION

No attempt will be made this year to equip the California Highway Patrol with radar, according to CHP Commissioner Glen Craig.

The battle, Craig says, isn't worth fighting against because there's no significant change in the attitude of the people he must get the commitment from.

California is the only state that does not use radar to catch speeding motorists on its roads (although most California cities do equip their patrol cars with radar). Craig has led a crusade to change that situation for five years.

Although Federal funds are available to pay for the radar, the CHP cannot accept the month without legislative permission.

Lou Papan, Chairman of the powerful Assembly Rules Committee, has blocked Craig's effort every year. Now, because of a change in Assembly rules, Papan's committee has increased powers to influence the course of all legislation. Papan wants the versatility of officers in lieu of radar.



COURTESY BETWEEN POLICE CHIEFS

On Thanksgiving morning, District of Columbia Deputy Police Chief Alfonso Gibson was speeding down a Prince George's country road to meet with his boss on a shooting case when he was stopped by a county officer and given a \$40 ticket.

But Gibson did not pay that ticket and never appeared in traffic court because of the intervention of Prince George's Police Chief John McHale, Jr., who, when contacted by an upset Gibson, had the ticket voided and removed from police and court records.

Gibson's request that the ticket be quashed and McHale's decision to do so apparently violated state motor vehicle laws. It appears that only the courts or the state prosecutor can dispose of a ticket once it has been written.

FBI PROBES SOME TICKETS

The Federal Bureau of Investigation has been conducting an investigation into the disposition of speeding tickets and other moving violation summonses issued by the Kansas City, KS, Police Department since last June.

Walt Meyer, Administrator of the Municipal Court, said an FBI agent has been making periodic visits to the court office since that time, selecting tickets at random.

Those who had the tickets issued against them are contacted by an agent who asks them to tell all of the details of the circumstances relating to the ticket.

Tony Triplett, a special agent of the FBI, would not comment on whether an investigation was underway, but did say that such probes are not launched frivolously and that if they were conducting an investigation of this type it would be because they had substantial reason to believe a federal law had been violated.

The evidence obtained by the FBI will be turned over to a federal grand jury if deemed necessary.

COURT UPHOLDS RADAR SPEED EVIDENCE

The Wisconsin Supreme Court has rejected an argument that devices used to determine the accuracy of radar equipment in speeding cases can be challenged.

The decision upheld a conviction of John Kramer, who had been found guilty in Juneau County of speeding.

Among other things, Kramer contended during his trial that tests conducted by State Trooper Theodore Due, a patrolman for eight months, did not constitute expert testing. Kramer also challenged the accuracy of tuning forks used by Due in testing the radar equipment before and after the arrest.

"To require proof of accuracy of a tuning fork by still some other testing device would create a sequence of tests to verify tests which raises the same proof problem at each level," the high court said.

In a 1978 case, the Supreme Court upheld the use of radar in determining a vehicle's speed, provided certain requirements were met.

LEGISLATIVE UPDATE

Last February Utah's House Bill 127 to ban radar detectors was voted on in the House and killed with a 42-24 majority.

In Delaware, Representative Charles West has introduced a bill to prohibit car insurance companies from raising motorists' rates on the basis of speeding tickets. Good luck!

refused to allow FCC engineers to inspect his station licenses and logs in violation of Sections 97.82, 97.83 and 97.105 of the rules.

Judge Ehrig noted that Munson has been convicted of the felony of threatening, over Amateur radio, to kill Commission personnel and has been found by a federal court-appointed psychiatrist to be legally insane, psychotic, unable to tell right from wrong, and incapable of conforming his conduct to the requirements of the law. This condition, had it come to the Commission's attention, would have warranted the FCC's refusal to grant Munson's original application for license, she said. Thus, Munson clearly does not possess the necessary qualifications to be or remain a licensee, Judge Ehrig concluded.

Under ordinary circumstances, the record in this case would warrant the conclusion that the suspension order should be affirmed and Munson's Amateur radio station license should be revoked, the judge said. However, Munson contended that since his station license expired on January 23, 1981, all issues regarding revocation or suspension have become moot.

Judge Ehrig rejected this contention for three reasons. First, she said, if a license is allowed to expire, application for renewal may be made during a five-year period of grace after the expiration. Revoking Munson's license would assure that he could not obtain renewal during that time, the judge said. Second, she said, to postpone a decision until such time as Munson might file a new application would unnecessarily burden both the applicant and the FCC with relitigation. Finally, Judge Ehrig said the California Superior Court in Los Angeles was awaiting a determination of the effect of Munson's conduct on his qualifications to be an FCC licensee before issuing its final order on the felony conviction.

RULES TO MINIMIZE POTENTIAL INTERFERENCE TO RADIO ASTRONOMY

The FCC adopted rules to extend procedures for minimizing potential interference to radio astronomy operations to Amateur radio station operations and to base, fixed and mobile relay stations in the General Mobile Radio Service.

This concludes a rulemaking begun in 1978 in response to a joint request

by the National Radio Astronomy Observatory (NRAO), Green Bank, W. Va., and the Naval Research Laboratory (NRL), Sugar Grove, W. Va.

NRAO and NRL conduct radio astronomy operations in West Virginia, including the deployment of highly sensitive radiotelescopes capable of receiving radio signals at a power level no greater than one millionth of a billionth of a watt. Since its discovery in 1932, radio astronomy has contributed to scientists' knowledge of astronomy, stellar physics and radio propagation.

Since 1958, as part of an effort to provide an area around NRAO and NRL that is relatively free from man-made radio interference, the Commission and the Interdepartment Radio Advisory Committee have maintained a National Radio Quiet Zone. Applicants in many radio services for new or modified radio stations within the boundaries of this zone must notify NRAO of the technical specifications of their proposed operations. NRAO may then comment on the proposal, and, if further steps are necessary to minimize potential interference, the Commission may take appropriate action:

While nearly all other radio services have been included in the Zone since its inception, it was only recently that growth in repeater operation in the Amateur Radio Service and land mobile systems in the General Mobile Radio Service caused NRAO and NRL to be concerned that these operations would interfere with their installations, thereby making it necessary to apply the protection procedures to the General Mobile and Amateur Radio Services.

Amateur radio interests, which filled the bulk of comments in this proceeding, opposed the rules. Generally, they saw them as unnecessary regulation that would degrade emergency communications in the Zone and predicted this was a first step toward applying the procedures to all Amateur radio stations.

Proponents of the rules stressed the uniqueness of the Zone as a national resource and said its deterioration would be detrimental to the nation's scientific and defense posture.

Noting this case required a choice between the public good and the individual aspirations of some radio users, the Commission concluded it needed to choose the former to protect

astronomy and research activities of NRAO/NRL. NRAO/NRL already have identified radio emission levels high enough to impede their research and observational activities, the Commission said.

The Commission disagreed with the argument that adoption of the rules is against the spirit of deregulation, pointing out that deregulation does not mean the absence of all rules and standards. Rather, it is the judicious use of regulation where needed, the FCC said.

Further, it emphasized the rules will apply only to Amateur radio stations in repeater operation and to fixed, base and mobile relay stations in the General Mobile Radio Service. There is no intention to later embrace all Amateur radio stations, it said. It also said the rules would cause no reduction in emergency communications in the Zone.

Therefore, it amended Parts 95 and 97 of the rules to contain the notification requirements.

REPORT ON SPREAD SPECTRUM TECHNIQUES AVAILABLE

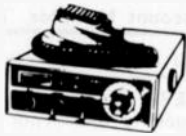
The Mitre Corporation has completed their report "Potential Use of Spread Spectrum Techniques in Non-Government Applications" under contract to the Office of Science and Technology's Technical Planning Staff. Copies of the report are available only from the National Technical Information Service, Springfield, Virginia, 22161. The accession number for the report is PB81-165 284, cost \$17 paper copy, \$3.50 microfiche.

The author of the report, Walter C. Scales, will present a tutorial on the same subject Monday, April 13, at 2 p.m. in the Commission Meeting Room, room 856, 1919 M Street, N.W. The public is invited.

The report identifies recently proposed applications of spread spectrum techniques that would fall under the FCC's regulatory domain as well as several new potential applications that had not been proposed before this effort began. The benefits, relative costs, and risks of spread spectrum are assessed in this context. A major conclusion of the report is that, while spread spectrum is no panacea, it may have useful applications, particularly where uncoordinated channel access by a significant population of users is an important requirement.

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