

Beating the cops on speeding



NOV-DEC 1977 NO. 47

POWERING MY STURDY compact car along a lovely tree-lined road in Larchmont, I spot a sign reading: "35 MPH — Patrolled by Radar." I smirk. Speed limits mean nothing to me. Newly installed on my dashboard is a radar emission detector called Fuzzbuster. It will warn me to slow down when the car draws in range of a police radar unit. I have Smokey the Bear at bay.

Or do I? After spending an afternoon driving under the protection of a radar detector, I find that I could have been arrested for having one in my car.

Radar detectors are the latest toys for adult motorists. Electronics dealers say that they are the hottest thing to hit the shelves since CB radios, and they seem to be selling by the tens of thousands.

New York State says the devices are legal to sell and legal to buy, but state police regard their use as a misdemeanor or punishable by a maximum fine of \$1,000 and up to six months in jail. Certainly, no driver caught with a detector goes to the puke or is fined anything like \$1,000 — but the legal menace is there. Indeed, in Connecticut, state police confiscate the devices on sight and motorists are liable to fines up to \$100. New Jersey, on the other hand, does not have a law restricting them.

A miracle of modern electronics, the Fuzzbuster is simplicity itself to operate. The motorist need only place the unit — a small black box — on the dashboard, plug a wire into the cigarette lighter, and adjust the dial. Then, a light will flash and a shrill beep will sound when the car nudges into range of a police radar unit. In the speed war between motorists and the law, the driver has the winning edge.

Manufacturers blandly promote the devices as "designed to help conscientious, safety-minded operators maintain legal speeds by making sure they do not inadvertently exceed posted speed limits." Police scoff, sometimes with an epithet, and they call the units "licenses to speed." Major Nicholas N. Giangualano, director of traffic for the New York State Police, said, "I don't see any other use for these things either than to avoid getting a speeding ticket."

The other day, I plugged a Fuzzbuster in my car and drove through the backroads of Westchester, on well-traveled highways, over parkways and thruways, in search of a speed trap to escape. Gradually, I developed a feeling of security, a sense of freedom from speed limits. I found I was ignoring the speedometer and moving as fast as seemed safe on the road.

For a hundred miles, I drove while my Fuzzbuster remained silent. Apparently, there was no police radar for my detector to detect. In Yorktown Heights, I stopped for gas at an Amoco station and the attendant, John Baylis, recognized my radar detector. "The police don't like them," he warned. "I was talking to one cop and he said he takes them away from drivers. Not all the time — it depends on his mood."

Baylis did mention two locations where local police often set up radar operations. I fooled past both, at speeds higher than was wise. The black box sat quietly on the dashboard. Back in New York City, with 134 miles clocked on the odometer, I still had not heard from

the Fuzzbuster. It had been a bad day for speed traps.

Radar detectors have not been popular long enough for their legal status to be clarified. Until two years ago, police believed the devices were undependable and ineffective and did not bother with them.

In New York now, arrests are based on a section of the vehicle and traffic code which makes it illegal for a private citizen to receive signals on police radio frequencies. Prosecutors and courts, however, repeatedly have found the statute inadequate and have thrown out many radar detection cases. Some judges rule that the 1933 law was passed before the invention of radar and therefore cannot apply in any case involving it.

But the future of the radar detector in New York State may well hang on the outcome of an appeal filed by a truck driver who was fined \$100 last February for possession of a Fuzzbuster. The appeal will be heard in county court, which will be the first time the legality of using the devices will be tested above the justice of the peace level.

Of course, state police are notoriously sensitive about motorists employing guile to outfox their speed traps. Some years ago when police enlarged their radar network upstate, motorists passing installations retallied by flashing their headlights to warn oncoming cars. The irked police began arresting the light blinkers.

As it turned out, one of those nabbed was a News editor, since retired, F. Heizer Wright. Fined \$10, he appealed the conviction, contending that the police were misconstruing the law. Police argued that the law forbids the display of "constantly" flashing white lights. Wright won on the grounds that the section did not mention any display of lights. Blinker arrests stopped.

In fact, radar detectors have been on the market since the early 1950s, but not until the mid-1970s was a device put into mass production that was reliable and had enough range to allow a driver time to slow down to avoid a speed trap.

Three companies supply most of the radar detectors on the market these days. Electrolert, maker of the Fuzzbuster, is the undisputed kingpin in the field with sales of 500,000 units worth \$35 million. Autotronics, a Texas electronics firm, makes the Super Snooper and claims sales of \$12 million. Radatron does not give out dollar sales for its Senturion detectors, although they apparently sell well enough.

Cost of the devices runs from \$50 for a simple battery-operated unit to \$150 for a more sophisticated device that will monitor two police bands. The more expensive detectors are designed to receive signals from the new one-man radar "guns" that police departments currently favor.

In effect, the detector is a radio receiver tuned to police frequencies. Some companies boast that signals can be detected up to three miles away, but many electronic specialists find this ridiculous. Detection distance can be affected by numerous factors, the experts say, factors like terrain and climatic conditions.

For sniffing out "Smokeys," three radar detectors have captured most of the market. The most sophisticated, the long-range Super Snooper (left), costs \$179.95. The Radatron Senturion (center) sells for \$89.95. The popular Fuzzbuster (right) costs \$105.

Generally, they argue, a device will function reliably at twice the distance being tracked by radar. That is, if the radar unit's range is half a mile, the detector will pick it up at a mile. The driver then, will have a half mile to brake down to legal speed.

And in explaining why Fuzzbusters and the like are not "licenses to speed," industry executives stress that such short notice will not help a motorist roaring down the highway at 90 miles an hour.

The devices, one promotional pamphlet suggested, are for those "who casually drift over the normally safe limit." They are designed "to help you keep aware of speed limits and keep you from feeding the Bears."

Not surprisingly, Jeff Wood, national agent for the International Truckers Association, agrees. "Sure, police are irritated by the radar detectors, but it actually helps them," he says. "A trucker hears the beep-beep and he slows down. It's like the CB radios and their 'Smokey' reports. Some policemen say they help. One California traffic safety officer told me these reports make 16 police cars sound like 50."

As with CB radios, truckers were the first customers for the devices. Gradually, they became popular with road salesmen and other folks who spend an inordinate amount of time behind the wheel. Drivers like these tend to push the speed limit. Tickets are a constant hazard and loss of their licenses means loss of their livelihood.

BUT PROBABLY the biggest impetus to sales was the imposition of the national 55-mile-an-hour speed limit — particularly in the West where drivers think nothing of 75 miles an hour, and 200-mile day trips are routine. Bob McLaughlin, assistant to the marketing director for Autotronics in Richardson, Texas, said, "The 55-mile-an-hour limit drove people mad out here. The interstate thruways were designed for high speeds—70 to 80 miles an hour. What was the use of having them if we couldn't use them?"

With the 55-mile decree, police became more intense in their efforts to control speed and introduced an increasing number of radar units. Electrolert, which makes the Fuzzbuster, reports that police around the country now employ 50,000 radar units compared with only 3,000 or 4,000 a few years ago.

Worse for drivers, the companies charge, the police radars are often placed in "unfair" locations — at the bottom of hills or at town lines — where even the most prudent driver might find himself speeding. And there is also the contention that too many police are using their radar skills to raise local revenues, rather than as a speed check.

In a way, motorists and police are engaged in an arms race in which there is little possibility of detente.

Dale Smith, inventor of the Fuzzbuster and head of Electrolert, argues that his device puts the motorist on an equal footing with the policeman who stalks him. The story is that Smith, who had been designing police radar units, got caught in a speed trap and hurried home to put together his own radar detector.

"Speed radar is a symptom of a society headed for a police state," Smith insists. "The Fuzzbuster negates the effectiveness of radar and in its own way, adds to our storehouse of personal freedom."

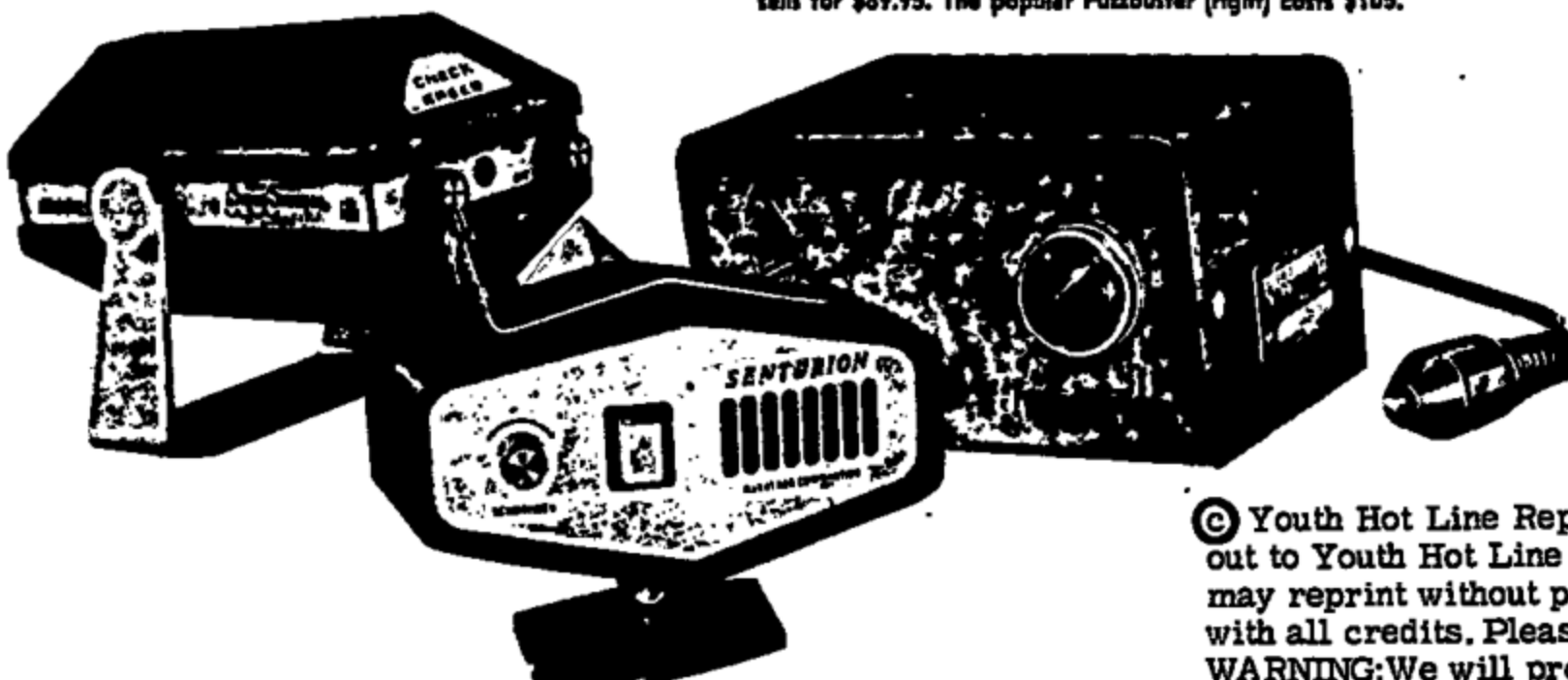
In Virginia, where radar detectors are banned, the feuding between state police and truckers who are devoted to the devices can turn nasty. In the last few years, authorities have confiscated 4,000 detectors, mainly from truckers. Their owners were fined an estimated \$500,000.

To tweak the sensibilities of the law, some truck drivers rolling through the Virginia hills place cardboard replicas of Fuzzbusters on their dashboard. When a trooper stops a truck carrying what appears to be a banned device, the joke is on him.

Last month, a trooper not only failed to laugh good-naturedly at the trucker's ploy. He arrested the driver, Henry Hillard, and brought him before a magistrate who levied a \$125 fine. The trucker recalled that the trooper was "spitting 10-penny nails."

In effect, Hillard had been arrested and fined for possession of a small cardboard box.

The trucker appealed with the help of Fuzzbuster's manufacturer, Electrolert, Inc., and the Independent Truckers Association. During a five-minute court session, the state attorney decided to drop all charges.



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THE VOICE by Ted Vail

To start off, I would like to pose a few questions, again in the vein of control and other telephone tones. "Depravo" mentioned the use of single frequency (SF) tones and said "it's a pity you haven't published more about them". Why should we? Of what use are they? Please note that these questions are not rhetoric: I want them answered! So far, the only idea I've received is from Sam, that ubiquitous Iitchfield Larcenist, who suggests that SF pulses used to be used for signaling a long time ago, similar to the way Kilgore described it in issue 37. What do you think? I want to know.

I am glad that Tom is reinstating the "letters from readers" column. I had originally intended to answer questions that appeared in older back issues, but I would prefer to conserve column space and only answer questions in the more recent ones. Maybe, when and if I become a regular, important TAP writer, and I receive enough favorable responses (Yes, that means you!), then Tom might send me photocopies of letters that he plans to publish and let me insert my answering comments after each one, a la Eden Underground. Until that happens, though, you'll have to be content with having to flip back and forth from the issue with the question to the one with my answer; namely, this one.

ISSUE 44: To "L.O."--Get a phone with clip leads, preferably a lineman's test set, and use it to clip on to the terminals in a junction box. If you cannot find such an animal, look for an underground cable connection box (the box is aboveground). They are those boxes that stand up about 2½ feet from the ground, are cylindrical or rectangular in shape, painted green and bearing the local telco insignia and usually the words "Do not dig--underground cable". They can be opened easily as they are never locked and hundreds of phone lines are inside for your calling pleasure. Failing either of these, equip your phone with a pair of special alligator clips that have the insulation-piercing prongs inside (available from Burstein-Applebee) and "latch on" to any available line. On a coin phone line (BY THE WAY--Depravo (iss.43, p.1) asked how the telco knows which phones are home ones and which are coin ones. Simple--don't you think they know which are which when they're installed? Then the incoming coin lines are connected to slightly different equipment; namely, the circuits that determine when and if any coins were inserted. As for the equipment at the other end of a line being able to tell, it wouldn't be hard to have the aforementioned circuits send a signal to the remote end.) you will have to ground Tip (green) through a 10k resistor as explained in Tom's "Fortress Fun" in iss. 30. About the Phone-Mate deal: an auto Black Box could be used to connect the unit to the line. There is a neat factor operating here: the machine operates for about a minute and a half, counting both messages, thus discouraging the "uninitiated" from exceeding the 3 minute Black Box time limit; maximum that most people consider safe. (HOW SAFE IS IT?)

To "Keith"--locate the two contacts that open and close as the dial returns (the "pulsing" contacts) which are connected across "F" and "RH" on a Western phone. Short these by putting a jumper directly across the two screws. This will disable the dial. If the guy knows anything about fones he'll know enough to pulse the hookswitch. A resistor and capacitor connected to the hookswitch contacts will discourage this. I don't know what values, but if Tom wants to figure them out and print them here, he's welcome to...

Dear "Indiana"--make sure you are calling an 800 number of an outfit a long distance away. If they give an 800 number for everywhere but Ind. and say to call their regular number collect, forget them. Find a company further away. Next--wait until you hear the ringing sound from the far end before "beeping off". Once you do that, you are in AT&T's Long Lines and the local eccentricities can be ignored. If you try that, and it still doesn't work, drop me a line explaining exactly what you did and heard, and I'll try to help.

A comment to Ed Extract: First, all places that have had an emergency number like 911 for more than 6 months or so have had time to install, and you can be sure, have installed, little LED-readout gadgets that display the numbers of incoming callers. I am told that some police stations have these on their regular lines, too, and that no matter where they are, they cost a fortune to rent. I want to know how these work! Even the general principles would be greatly appreciated. Second, my Illinois friends tell me that some Chicago suburbs have those "flashable" signal lights. One even says that he activated it with his xenon camera strobe, flashing through the windshield! You have to be at a certain distance range to be at the correct angle. This sounds neat! I want to hear more about this!

Dear Jim--Instead of destroying the multi-line capability of the key telephone, why not just locate the two line wires for one of the lines and hook up to there? I hate to see expensive equipment destroyed--makes about as much sense as giving a stud animal a vasectomy.

Dear "Nickolai"--WHAT IS THAT NUMBER? That's just the kind of thing we want to publish and let our readers try it out. By hearing exactly what it sounds like, one of them might be able to figure out its purpose. My guess is that it's a test number, but for testing what? If we publish it, maybe we'll find a TAPper working in the exchange near there who could tell us. The only reason you might not want it published would be in the case of a really neat, exciting number that you do not want Telco to disconnect, and frankly, this one doesn't exactly sound like something that would keep me awake at night (although explaining this to you is). Also, please define "power-factor-corrected", and teach us what you learned. What you learned about power meters, that is, not necessarily what you learned from your dog.

Concerning "A.C.'s" discovery: Something I read in EUNS (Eden Underground News Service, published by Eden Press) goes it one better. According to Barry Reid's "Inspiracy" column in Eden #33, "A company called LIBERTY GRAPHICS (P.O. Box 3614, Charlotte, NC 28203) prints up checks that resist microfilming, and will provide the exact type of check you need..." Neat, huh? A friend told me that the banks can give you a real hard time if you foul them up with things like this, but whether or not they do depends upon the individual bank. Start a small account under a false name and use these "trickies", and you'll soon find out how much of a Big Brother your local outfit is.

Dear "Calif." (of Baghdad?): OF COURSE KP2 doesn't work when used in place of KP1! The Long Lines long distance lines are going to totally ignore any/every signal that isn't preceded by KP1. I suggest you try KP 044 KP2 (African country code) (number) ST or try KP 044 ST, KP2 (then same as before). These are only educated guesses, and I would greatly appreciate more information on this subject! In fact, I don't even know the tones for KP2 offhand, and I can't find them in any back issue. Will someone tell me which one (if any)? I also want to hear from old time subscribers, especially the guy who wrote the letter signed "-KANSAS-" on page 3 of issue #27 (or anyone else who has info concerning the "BV" key or "Rate&Route". I have some ideas about the use of the coin return and collect MF tones, mentioned in that same letter. They are almost certainly used by operators at the far end of a long line to perform the coin functions, as a DC signal from the far end obviously wouldn't do it. To see if they can be used, have someone call you from a pay phone a long distance away (like a different area code), preferably using coins but I suppose it would work if he Boxed an 800 number and then inserted a nickel (or slug). You want something in there so you know if the coin relay is doing something or not. During the conversation, before the coin relay is activated automatically by the local exchange, keep the "coin return" tone into your end and hopefully his coins will be returned. You may have to precede it with KP and follow it with ST. CAUTION: If it is a paid call, an operator is right there and your friend had better reinsert a nickel quickly to put the coin circuit back to its "money inserted" condition before the operator notices the temporary change of status on her board. Remember, those green lights switch to red immediately when money leaves the coin hopper, either for your hand or the coin box, and you must put that relay back to keep the op. from noticing anything. I need more info on these tones; experiment to verify or refute the above conclusion. Please remember that since I don't have direct access to Telco internal info, I have to piece together bits of what I do know. It may not be perfect, but it should put you on the right track.

Dear D.J.: If you hook up between the power company and the local meter, you won't be drawing any juice through it and thus it won't show. I'm positive that the meters at the company show only large scale changes (else why would they have local meters?). As far as permission to inspect goes, if the wires actually do cross your property, you had to give them permission to put them there. Or did you? If not, and they try to sue, they'd probably laugh it out of court. If you did permit them, though, the contract (agreement) almost certainly has fine print giving them the right to inspect. They would probably have to notify you, and a Doberman or two roaming your fenced-in yard might deter them for a day or so, allowing you to "tidy up" before your guests come. It's difficult to fasten safely to the piece of aluminum, so remember to learn the exact correct procedure and of course insulate well. Good luck!

Concerning the next, unsigned letter: I thought we got that scheme out of the way on column 1, p.3, iss.27--most meters are 5 prong and thus cannot be inverted. For curiosity's sake, I would like to know the meaning of the cryptic notations that appear on nearly all (if not all) electric meters. They are all "Rr" and then a number like 13½ or

11 5/9 or so.

It has occurred to me, and to you too, I'm sure, that most TAP readers are generally "counter-culturalists". I think I can safely assume that you are, too. Then why not break further away from the system (which, of course, encourages you to just sit on your ass) and do something, preferably something for TAP? Tom is so right when he says "Reader apathy SUCKS!". The U.S. has become a nation of passive pleasures and entertainment where everyone just sits around, consumes goods, and doesn't think for himself at all. The ubiquitous "boob tube" is a perfect example—for all TV addicts and indeed a majority of Americans it has become practically a prostitute, allowing you to just lie back and be "entertained". Well, if you want to be a regular moron (NOTE—the average TV viewer has the mentality of an 8-year-old!) and do that, then as far as I'm concerned, you can do just that: GET FUCKED! But if you want to come out of the delirium, and help yourself (and someone else) to be an independent counter-culturalist, what better way to do so than by helping TAP, right now! Actually, the title of my column should be "W D Y T", standing for "What Do You Think?", because that is the real question in TAP—what do you think? We want to know. Not only can TAP not improve without your feedback, it cannot EXIST without it! You don't have to live in or even near NYC—I'm over 100 miles away, yet I still manage to contribute! As "Winnie" so aptly put it, now is the hour! For all good TAPPERS to come to the aid of Ted Vail! I can be reached, Tom permitting, at TAP, Ted Vail, Room 418, 152 W. 42 St., and you'll have to turn the page to get the rest. And PLEASE, if you want a reply, put your return address on the letter, not just the envelope. Please mention what area code you're from, even if you don't mention your address. Hopefully, my next 4 months will be interesting and informative, the entertainment coming from you, courtesy of the local Postal Service. No, there is not a station break now.

LETTERS FROM READERS

Dear TAP,

Your past couple newsletters have indicated an urgent need for new material - well, let me lay one on you! Here enclosed are plans for two different units, one a combination blue/red, and the other red only. They are fully automatic, and programmable.

Liberal use of COSMOS integrated circuit techniques precludes even the need for an off/on switch, since the standby power on these is for all practical purposes, 0. These are usually built in layers, and it results in a very volume efficient device (see illustration of hand-held unit). Three layers consist of front panel with keyboard, memory and logic board, and tone oscillator/amplifier. It is my feeling that the construction of an advanced unit of this type is best managed by individuals with a fair amount of electronic experience. For this reason, no effort was made to include pin numbers, exact layout instructions, etc. It is felt that the procurement of RCA's COSMOS Handbook or its equivalent should be made prior to planning or constructing your own unit, and all details may be found there.

In actual operation, the blue/red unit is very simple and straightforward. One need only key in the entire evening's "activities" prior to leaving for a booth (you wouldn't use your own, would you?). The actual number of telephone numbers which can be stored and sequenced through are dependant on many factors; however, a total of 64 key-strokes are possible. Foreign sender codes, area codes, local numbers may be mixed in any suitable order. In examining the schematic, you will see that the memory will shift each new MF combination out with every clock pulse, thus enabling the proper oscillator combination. Detection is made of KP or KP2, which when sensed, halts the sequence, waiting for another push of the "run" button to continue. Numbers are re-circulated, and may be recalled by sequencing through the stored combinations. The tone pair bursts are 50 ms in duration with 50 ms of silence in-between. KP and KP2 are 100 ms in agreement with ITT specification.

If you have experienced difficulty in penetrating exchanges which are employing the new "Message Format Discriminators", you will really love using this - the calls sail through every time, while the manual units fail! The feature which is most appealing to those of us who are using these is the fact that the units are very compact and easily concealed, pre-programmed so that there is no need for hauling a big "box" out in public view each time you "dial". Although both units in the illustrations contain built-in speakers, there is also provision for remote jacks, so that a tiny speaker or headphone unit may be easily palmed. With this unit, it was a simple matter to place a call to Moscow, using the central desk of the BTT without raising a single eyebrow! (until later, much later)

Hopefully, devices such as this one and others even more advanced will help to close the technology gap again in the never-ending battle with these "blue-belled" fuckers.

It is a matter of increasing concern the growing number of felony convictions which are being passed on to really "regular" folks these days. Such truly trivial items such as mere possession of an encoding device, blasting caps, night viewing equipment, and on and on... they might as well lock everyone up and get it over with! The dirty fuckers and their "Grand" juries are causing thousands to lose their rights to possess guns, vote, they are not even allowed to associate with other "felons". Did you know that simply selling three rifles within a 90 day period is a federal felony rap? I have heard of individuals who were "out of favor" with the government be approached by Alcohol and Tax agents posing as interested gun buyers and having made the required minimum "purchase" then busted the poor and unsuspecting victim. This has happened to those with leanings both left and right - it looks as if Nixon-mania is still with us! Such a legacy as this should make us all aware that after all, 1984 isn't really all that far away now.

As a former design engineer for the Bell System, am in a position to know how really fucked up their attitude toward the public they "serve" really is. Publications such as TAP must be supported and not allowed to go under. Not all of us are into the circuitry end of things - how about those of you who really make the system talk? Lists of country codes and foreign senders should be updated yearly, the system is in a state of constant flux. The U. N. Bookstore in New York will sell copies of the ITT Green Book. Get the volume on "Signalling and Switching" to be brought up to date. Ever wonder what those strange tones are when you place foreign calls? This book will tell you!

Inquiries regarding these circuits may be made by the placing of an ad in the "personal" column of the Seattle Post Intelligencer. Mention my name, leave telephone number or address.

Gentlemen, keep up the good work. There is more at stake in this than you may suspect.

Milo Fonebill

MERRY CHRISTMAS & HAPPY NEW YEAR
from Tom Edison and my staff of burn-outs:

Stan	Joe Greyhound
Duff	Ted Vail
Dave	Agent MDA
Sam	Mark

IMPORTANT NOTICE!!!!!!!!!!!!

All TAP subscriptions are pro-rated. For all you burn-outs, that means that if you send us the old sub rate, you will get only 8 issues. Issues are 50¢ each, whether you buy them as back issues or through a regular subscription.

Stay the hell out of Spotswood, N. J. ! The local pigs have got a good racket going for them. The name of the game is called Radar Trap. You play this game by craftily hiding a 40 mph sign between two 50 mph signs and then placing a radar pig boat by the 40 mph sign. By the time you take your foot off the gas when you spy the flashing blue lights behind you, they've got you! If only I'd read about the radar detectors mentioned on the front page of this issue. I hope you fuckin Spotswood porkers choke on my \$15!

NEW RATES !!

Back Issues are 50¢ each.

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CB BULL by Joe Greyhound

Writing this month's column may be a total waste, but I'm writting it anyhow. I've been let in on the financial status of TAP and it isn't good at all. There isn't even enough greenery in the bank to pay the bills and rent on their hole in the wall! If you think us writers and workers here are getting payed, you're full of shit!

I'm waiting for the word on whether to write this column or not, but figured I'd write it up any way just in case.

I was supposed to give a modification for CBs using the type of synthesizer explained in my last column, but while thinking about it, I figured out an easier way to do the entire syntha series, that is if there is still something to write it for!???

The mod. will come after all the synthas are looked at. So, this second type of synthesizer is used in 23 channel radios manufactured by Sharp, Teaberry, Courier, Pearce Simpson, and probably others. Again there are six main crystals used in both the transmit and receive modes. They happen to be, 23.290MHz used for channels 1-4, 23.340MHz used for channels 5-8, 23.390MHz for channels 9-12, 23.440MHz for channels 13-16, 23.490MHz for channels 17-20, and 23.540MHz for channels 21-23.

In these radios there are another four crystals that are used in both modes. Channels 1,5,9,13,17, and 21 use the 14.950MHz crystal - Channels 2,6,10, 14,18, and 22 use the 14.960MHz crystal - Channels 3,7,11,15, and 19 use the 14.970MHz crystal - and channels 4,8,12,16,20, and 23 use the 14.990MHz crystal.

When the radio is in the transmit mode on, say channel five, the 23.340MHz and 14.950MHz crystals are added in the synthesizer mixer to produce a 38.290MHz output. Next the 1st IF frequency of 11.275MHz is subtracted from the above 38.290MHz to give a frequency of 27.015MHz, channel five. The procedure continues all the way from 1 through 23.

The receive mode works the same way, even though a 11.730MHz crystal is thrown in somewhere. This has to do with heterodyning in order to produce the 455kHz 2nd IF frequency, but don't worry about it. Just remember, in order to check your receiver's frequencies the frequency of the 1st local oscillator equals the sum of both main crystals (the two crystals that are used for one channel in both modes) plus 11.275MHz. But forget it, since this is all constant and in doing modifications they always stay the same. Whew!!!!

Even though all this shit is probably boring to read, don't sweat it. I've got some goodies planned for future issues (I hope!!!!?) of TAP.

If any of you out there would like info on any type of CBs or equipment just drop me a card along with a long stamped self-addressed envelope, and I'd be glad to send you back manufacturer's pamphlets or whatever.

Member, send any info, questions, comments, money, requests for info, money to:

TAP
c/o Joe Greyhound
152 W. 42 Street
Room 418
New York, N.Y. 10036

GET DOWN!! by TOM EDISON

I'm sorry that my column in this month's issue is so small but I want to use as many new articles and columns by readers as possible in each issue. There are many new developments that I wanted to write about but these will just have to wait until the next issues. I'm gonna be a bastard and pull a cliff hanger on ya by telling ya that in our next issue, we'll tell ya where ya can LEGALLY by a Blue Box! How's THAT fer balls?!

I couldn't end the year without thanking Stan & Duff fer making this one of the most expensive but far fuckin out summers that I've ever had! Thankx again, ya burn-outs!

Let me end my column with a plug for a fantastic new store that's opened in New York City, better known as Cin Sity. The name of the store is simply The Computer Store. For all you real techno-phreaks just dying for a place that deals in computer info, this is the place to go. Three books that all you phreaks should be interested in are listed below. For more info, write or visit The Computer Store, 55 West 39th Street, New York, N.Y. 10018. Tell em Tom Edison sent ya!

555 TIMER APPLICATIONS SOURCEBOOK \$6.95
HOWARD M. BERLIN EAL INSTRUMENTS

A USEFUL SOURCEBOOK FOR 555 TIMER TOYS TO MAKE WITH THIS TECHNOLOGICAL WONDER. IT INCLUDES A CHAPTER CALLED "THE 555 AND MR. BELL". SHOWING HOW TO MAKE INTERESTING TONE GENERATORS

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Turn kids on to real grass

GREENBURGH, N.Y. (AP) — Neighborhood kids gave a 60-year-old woman 15 plants several weeks ago, telling her they would grow "beautiful flowers."

The flowers never came, but police say the fruit of the woman's labor was a thriving marijuana garden, with the plants two feet high.

"She had no idea they were marijuana plants," Lt. Michael Gangemi said Friday. "She planted them right in front of her house. She thought they were real pretty."

The police removed the crop.