

Exploding The Phone

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Abstract Article details story of two alleged phreaks arrested in

Pennsylvania whose charges were subsequently dropped. Also

describes how the technology works, and the phone company's methods

for catching phreaks.

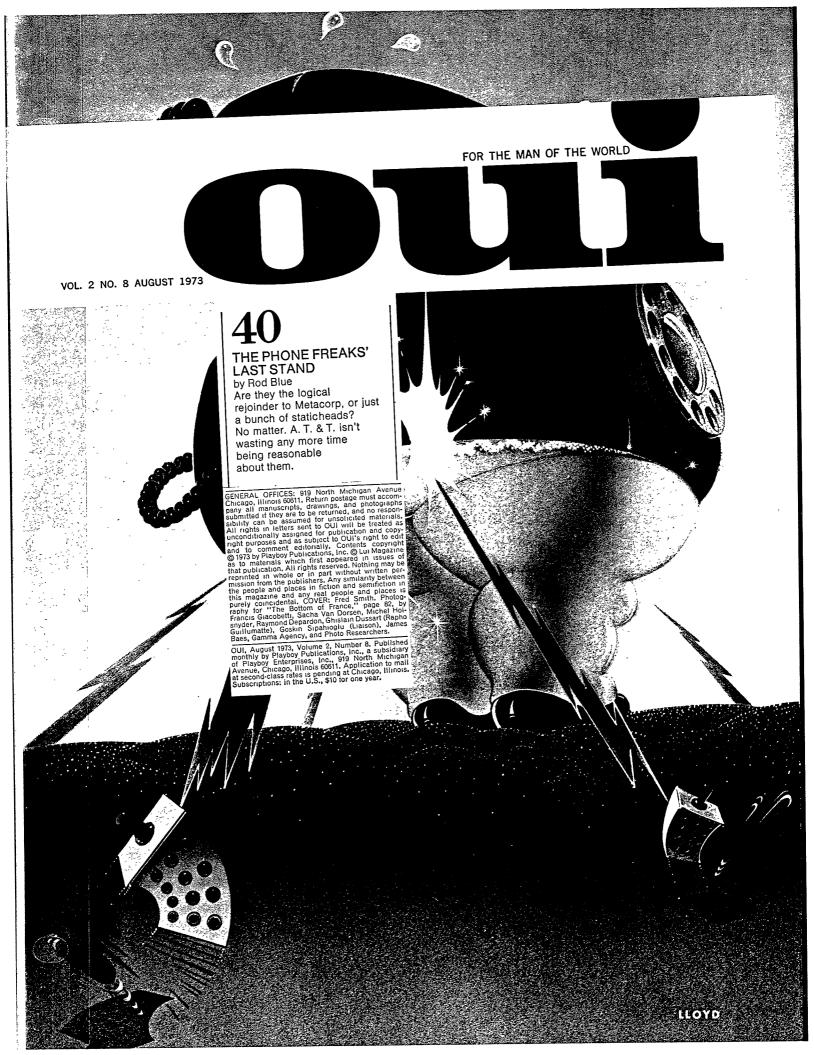
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THE PHONE FREAKS LAST STAND

This year marks the third anniversary of media stardom for the phone freaks, a small but highly dedicated band of technology guerrillas whose basic idea of a good time is a free round-the-world conference call linking Duluth, Moscow, Bombay, and Honolulu. They accomplish feats like this with various "little boxes"-black, blue, and red-which are essentially devices for duplicating the 12 multifrequency tones that open the phone company's circuits to the world. This is possible because the Bell System's multibillion-dollar mechanicalwonder system has a simple, tragic flaw: the control signals that regulate most of the world's telephone equipment come down the same channel we speak on, so if a freak learns the tones, he can just beep them down the wire. The signals trigger all the right long-distance trunks, tandems, and circuits, and the multibillion-dollar system turns into Silly Putty.

In the last year there's been a minor phone-freak blitz. It used to be that freaks were mostly blind kids with supersensitive hearing whose easiest way out of a blank life was the telephone, or a few electronics wizards who loved the system for itself and liked playing with it the way ham-radio operators play on the airwaves. Since the media discovered the freaks in 1971, however, boxes have been operating from business offices, laboratories, college dorms, and coke dealers' pads, and prices for the various models have risen from \$500 to \$1000 and more. Occasionally, a freak will try to rationalize his habit by telling you what a rip-off the phone company is (Yippies and Zippies are given to this), but most users admit they just like to make a lot of free calls.

The way you hook into the system is simple: you dial a long-distance number with an 800 prefix—the one you dial free for Army recruiting information or to book a room at a Holiday Inn. Just before or immediately after someone answers, when you know you're into a long-distance circuit, you hold the box up to the receiver and push the 2600-cycle button. This button sounds the multifrequency tone that lets you pass from one long-distance circuit into another, and then it's possible to call free anywhere in the world, so long as you know the proper country codes and numbers.

So far, there are three variations on

WILL THE IRON FIST CRUSH THE BLUE BOX?

BY ROD BLUE

the basic box: the black box, which by means of a resistor and wiring job cuts down on the number of message units recorded by the telephone company's electronic monitors and allows you any number of free incoming calls; the blue box, which looks like a tiny adding machine or the push-button system on some office phones and allows you to make outgoing calls to anyplace by punching some combination of its 12 multifrequency buttons; and the red box, which has been around for only a few months and duplicates the sound of the "bips" that register on lines after coins are deposited, thus avoiding the scanners the phone company has been placing on tollfree lines. The red box registers one bip for a nickel, two bips for a dime, three bips for a quarter, etc., and allows phone freaks access to any phone line.

Estimates by phone-company employees and freaks put the number of boxes floating around the country in the thousands, with more being used every day, and the Bell System has begun striking back. It has assigned its supersleuths—security agents who only a few years ago were chasing winos and junkies who broke into pay phones—to try to catch the freaks.

Phone-freak arrests nearly doubled last year, up from about 37 in 1971 to more than 60 in 1972. Among the more spectacular busts were a blue-box factory in Texas and the arrest of the notorious Captain Crunch, an electronics engineer who had been driving across the U. S. in a Volkswagen Camper equipped with a switchboard, tapping into lines for days on end. Crunch's method was to drive up to a lonely pay-phone booth somewhere in the wilds of, say, Iowa, and plug in for an orgy of calls.

Ma Bell claims to have all manner of methods and devices to catch freaks. Bell computers are now programmed to scan for unusual patterns of heavy or prolonged use of 800 numbers from a given line. There is a gadget that can be placed on a suspect line and triggered to record conversation when it hears 2600 cycles coming on the line illegally. Another little machine, the pen register, works like an electroencephalograph. When attached to a suspect line, it picks up multifrequency tones coming down the wire and draws a wiggly pattern on paper. The wiggles can be decoded into frequencies and translated back into the numbers.

Phone freaks, however, have learned to outwit the pen register. They merely send a 2600 tone down the line and leave the phone off the hook until the machine runs out of paper, or they dial so fast that it can't keep up. As every phone freak knows, any gadget the phone company has devised to catch box frauds must be placed on a line where there is a chance agents will find evidence, and this is just not practical, since there are hundreds of thousands of phone lines crisscrossing the country. The phone system is too complex to apply the same solution everywhere. The phone freaks' golden rule is that "the larger and more technically sophisticated the system, the easier it is to bust." And, given normal employee apathy in a large corporation (and some A. T. & T. employees feel that Ma Bell is a dirty mother—they often couldn't care less if someone is using a box on lines coming into their central office), it's easy to see why only a few freaks get caught. Those who do are naïve or careless: they'll use the box endlessly from their home phone instead of from a public booth-which is much harder to trace -or they'll get into marathon conference calls with a dozen other suspects, or occasionally even sell boxes to undercover agents. But because it is so difficult to break the back of the phone-freak fad, the Bell System has lost its sense of humor.

Last year, Ramparts published an article detailing how to make a muting device—a black box. Rather than suing Ramparts or seeking an injunction to halt publication of the article (a suit to be fought on the basis of the First Amendment—freedom of the press), A. T. & T. lawyers merely informed Ramparts distributors that they would be subject to arrest if they allowed the issue to be sold. According to Ramparts, A. T. & T. then requested the magazine's subscription list so that the company could monitor subscribers to see if they

were using a box of some kind. Ramparts refused. But, unable to match the phone company's resources in lawyers' fees or court costs, it withdrew the issue from the newsstands.

A similar thing happened to Phoenix radio station KDKB when it attempted to read the *Ramparts* article over the air. A. T. & T. lawyers called the station and warned that it might be guilty of fraud by wire if it went ahead. The station chose not to read the article.

The question of how far the phone company will go in trying to protect its revenues remains unanswered. In addition to the charges of muzzling the press, A. T. & T. has been accused of massive tapping of suspects' telephone lines and unwarranted, secret surveillance of suspects and their families.

"You don't condone crime or defrauding the phone company," says Nick Clainos, a young San Francisco attorney who has defended several phone freaks, "but there's a gap here between morality and legality. For crimes worth a few thousand dollars, the phone company is tapping whole families without restriction. It can tap for months and it doesn't matter if it has a warrant or not. No law-enforcement agency is allowed that freedom."

THE CASE OF THE INNOCENT VICTIM

A lawyer's office in the small town of West Chester, Pennsylvania, 30 miles from Philadelphia. Gene Mitchell enters. He's 29, tall and pale with very short hair, an electronics whiz, and a ham-radio operator. Gene is especially proud of his inventions, walkie-talkie and cartelephone extensions that operate by radio signal within a 60-mile radius of his home phone. Until his arrest in September 1971 for conspiracy—making, using, and possessing a blue box-Mitchell had been a Bell employee for nine years, a coordinator who ordered equipment from Western Electric to the specifications of Bell engineers. "I was there when they came to our house," says Gene's father, a well-to-do businessman with a Masonic pin in his lapel. "They pretended to be Masons. One even had a Masonic lodge pin on." The visitors turned out to be two Bell security agents and a Chester County policeman, none of whose names appeared on the search warrants they were carrying. They were looking for Gene and his blue box, a device he denies ever having owned, used, or seen.

Mitchell says the blue-box business has brought other visitors to his home. "My son had internal bleeding from a beating he got Thanksgiving night by some other guy who came around asking questions about a blue box. Our house has been broken into. My son was a Civil Defense radio officer, a camp counselor, a parttime police officer in college. My son never lied to me in his life."

Outside a small electronics plant in Downingtown, Pennsylvania, 12 miles from West Chester, Mrs. Nellie Spacil is waiting in a station wagon for her son Kenny to finish work. Kenny comes to the car. He looks even younger than his 19 years.

"I'll never forget, just never forget," says Mrs. Spacil, "the day two big shots from A. T. & T. came to the house to see Kenny's ninth-grade science project."

The Magic Twanger

This is what a blue-box control panel looks like. The numbers on the left correspond to the frequencies on the right. Phone freaks memorize the combinations of tones, allowing them to duplicate the exact sounds the Bell System makes, and call anywhere, free.

Signal	Frequencies
Disconnect	2600
KP (Key Pulses	s) 1100/1700
1	700/900
2	700/1100
3	900/1100
4	700/1300
5	900/1300
6	1100/1300
7	700/1500
8	900/1500
9	1100/1500
0	1300/1600
ST (Start)	1500/1700
Frequency tolerance ±1.5%	

Kenny interrupts enthusiastically: "I built a model of a branch telephone office. It had 15 to 20 phones run on a special power generator. I devised my own ringback circuit. The kids loved it."

"So these big shots told me, 'Mrs. Spacil, that kid's a genius. Don't let him lose interest. We want him right after high school.' Right after high school Kenny took the test for phone repairman and switchman, and he passed with flying colors. All he ever wanted to be was a real telephone man. But he wasn't hired. The A. T. & T. personnel officer told him, 'Sorry, we don't give reasons why we turn you down.'"

"I was kinda lost after that," Kenny said.

In April, Gene Mitchell's lawyers asked a Pennsylvania court to suppress

the evidence against him. The court granted that motion and Ma Bell, who said she was going to appeal, never did. Mitchell is presently suing the phone company for \$1.5 million.

At press time, Kenny Spacil and three others were awaiting appeals on indictments for conspiracy to defraud the phone company. Their lawyers also have moved to suppress evidence against them. The evidence against Gene Mitchell came solely from wiretaps, and according to his family, his former employers listened in on his telephone conversations long after his arrest.

Mitchell got into trouble because of his friendship with Spacil. They met in a roller rink where they found they both were organ-music and Moog-synthesizer freaks. Spacil told Mitchell about phone freaks, but Mitchell maintains he didn't believe him at first.

One day Spacil called Mitchell at work and asked about Gene's "unit." He says he meant Mitchell's walkie-talkie. Phone security agents, who by this time were monitoring Spacil's phone, thought "unit" was a code word for blue box. Gene Mitchell was fingered as a traitor in the sensitive A. T. & T. Long Lines Building in Wayne, Pennsylvania, where he worked.

The night after Spacil called him, Gene went home and tried a number Kenny had given him to prove phone freaks did exist. Gene couldn't believe his ears. He'd cut into a phone-freak conference call, 15 different conversations going at once, zinging in from all over the country. It sounded like a sci-fi sound track. Mitchell says he realized "something funny was going on" and sought to report what he'd heard. He says the phone security agent he reached demanded: "Why are you telling me this?" That same night the two security agents and the county policeman showed up to search Mitchell's house. They confiscated his extensive collection of electronic equipment (all of which he owned legally) and brought him to the county courthouse for several hours of questioning.

When Mitchell arrived at the courthouse, he knew he'd been pulled in as part of a raid. There were dozens of cops in plain clothes and uniforms and a gaggle of phone security agents watching over four handcuffed suspects, one of whom was Kenny Spacil, the only person Mitchell says he recognized. A blue box had been found in Spacil's house.

The press had a field day. Pictures of Mitchell's confiscated equipment appeared on the front page of a local paper. The phone (Continued on page 90)

(Continued from page 42) company's public-relations man, when he wasn't giving TV and radio interviews, elaborated his version of the "blue-box gang" raid for the business section of another local paper: "The Chester County raid was the opening gun, as we say, in Bell of Pennsylvania's get-tough assault on the weirdest of all forms of electronic toll phraud—phreaking. It signaled the beginning of bad news for phreaks and their strange little toy, the blue box."

Mitchell was fired from his Bell job, kicked off his Civil Defense radio job, and refused work because of his "reputation." When he offered his services to the rescue operation in the 1971 Harrisburg and Wilkes-Barre floods, he says the county radio officer told him, "We don't need your kind of help." Mitchell's father appealed for a meeting with the treasurer of Bell of Pennsylvania, William Powell, a member of his church. Powell refused to see him.

Mitchell says that Bell employees rallied around him secretly. They said such things as:

"Sorry to hear what happened to you, Gene. Those charges are ridiculous. But don't say I called, OK?"

"....We're not supposed to talk."

"....If they find out I'm calling you, I could lose my job."

At 1:30 A.M., Thanksgiving night, 1971, a dark, husky stranger with an Italian accent appeared at Mitchell's door. "Where did you get your blue box?" the stranger demanded. "I never had a blue box," Gene replied. "Those charges are totally false."

"Well, here's a little something so you won't go to the police." And the man belted Mitchell as hard as he could in the abdomen. Mitchell claims it took two phone calls and three hours to get the police to arrive. The doctor who examined Mitchell told him he'd suffered internal bleeding.

Months after their arrest, both Spacil and Mitchell alleged phones would go dead for two or three days at a time. Finally, a friendly phone repairman told Gene, "You have an off-premises extension going somewhere. There's another pair of wires going to the Wayne Long Lines office." "Can you lift them?" Mit-

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chell asked. "Nope, there's a note saying, 'Do not disconnect.' "Both families were charged their usual monthly phone rates.

All wiretapping is illegal in Pennsylvania, and Mitchell's lawyers won a motion to suppress evidence the phone company used against him. So all charges against Mitchell and the "blue-box gang" arrested at the same time were dropped, but the phone company is appealing the decision. A. T. & T. feels it has a right to monitor anyone suspected of being a trespasser on its private property, the phone lines.

Two days after the motion to suppress the evidence was granted, Mitchell's house was broken into. Two pieces of electronic equipment were taken. Nothing else was touched.

It was the phone company, not the local police, who kept the electronic equipment confiscated during the raid, taking some of it apart, piece by piece. (Later, the police said they'd had no room to store it in their evidence vault.) The phone company and the Chester County district attorney also held joint press conferences.

Mitchell says he learned accidentally how the phone company got its information for the phone-freak raid. While sitting in a coffee shop, he says, he overheard two repairmen talking about the raid. One man bragged to the other that his buddy at the test board (the test board is where phone circuits and lines are tested to see if they are in working order) had nothing better to do, so he was looking around for a line to listen in on and happened to come on "these damn kids in a conference call." One of the kids was Kenny Spacil. It's against the law for phone employees to eavesdrop on people's conversations, but Mitchell says that from what he's seen it's a common occurrence. "Half the time these guys have no work to do, so they plug into people's conversations. It makes them look busy.'

Under Section 605 of the Federal Communications Act, written in 1934 to prevent the disclosure of people's conversations by phone-company employees, and the Omnibus Crime Act of 1968, phone-company personnel are allowed "to make random checks" to maintain the quality of the phone service and to protect its revenues. In addition, federal law and separate state statutes govern fraud by wire. In the case of the phone freaks, however, if the "random check" reveals an illicit conversation initiated with a blue box, the checker can listen in for the duration of the conversation. He can notify phone security agents to do the same thing, and they can continue to listen until they're satisfied there is "probable cause" to get a warrant to briefly wiretap for court purposes. By this time, a family's phone may have been tapped for weeks.

The practice of listening in to establish probable cause is the complete reverse of usual legal procedures. In every other sphere of law, excepting delicate issues of national security, the right to privacy is so precious that probable cause must be established without wire-tapping. But where the phone company and its private property are concerned, no such delicacies exist. One A. T. & T. official explained it this way: "We can wiretap. These people are trespassing on our lines, which are private property. I think you'll find the courts are on our side."

He was referring to a U.S. District Court ruling holding that if the use of a communications facility is illegal, the right to privacy does not exist, and information from wiretaps may be disclosed as evidence. The court also said the phone company has a duty to keep accurate records for the Internal Revenue Service in order to collect federal tariffs. The phone company assumes this means it may wiretap in order to collect tolls. So far, the only standard imposed against the phone company's wiretapping in blue-box cases is one of "reasonableness." A. T. & T. is not supposed to tap anyone for an unreasonable amount of time. But the way to get around that is to get a warrant to tap for a few days to establish evidence for the court.

Nathaniel Lewin, a Washington lawyer, formerly with the Solicitor General's Office and a former Deputy Assistant Attorney General, handled wiretap cases at the Justice Department. He says: "Ralph Nader got \$425,000 payment because General Motors could not invade his privacy when it claimed he was hurting its business. An airline company cannot tap someone it suspects is stealing tickets from it. I can't tap your phone because I think you're robbing me, so why should the phone company be able to tap whomever it wants to just because it thinks someone is cheating it?"

Apparently because it hasn't come up with a better way to catch freaks. For A. T. &. T., fighting the phone freaks is a little like the U. S. fighting the Viet Cong. And according to the phone company, freaks are every bit as dangerous. "Phone freaks are a threat to national security," said one phone official stunned by the news that charges against Gene Mitchell were being dropped. The freaks, however, are taking things more lightly: "We've decided to stop calling the phone company 'Ma Bell,' " said a New York freak. "We're gonna call it Pa Bell and stop being discriminatory."