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Author(s)	Tierney, John
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Abstract	The author attended the WATS and writes about the discussion there and the basics of phone phreaking.
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Notes	Date estimated; article mentions WATS-80 conference.
Source	An anonymous phone phreak

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The Washington Star / Ray Lustig

*"The Magician" gains access to a telephone circuit.*

## Phone Phreaks: Tapping Into the World of Ma Bell

By John Tierney  
Washington Star Staff Writer

The Magician, a surprisingly sedate-looking young man considering his alias, yesterday afternoon took a plastic box out of his pocket, pulled off the blue terry-cloth cover, picked up the pay phone in the lobby of the Gramercy Inn and started talking about Automatic Call Distributors.

"What we're going to do," he said, "is construct a toll-free loop in the phone system going through New York City." He dialed 212-555-1212, the directory assistance number in New York, then put his plastic box — known as a 16-digit touch-tone encoder — up to the receiver.

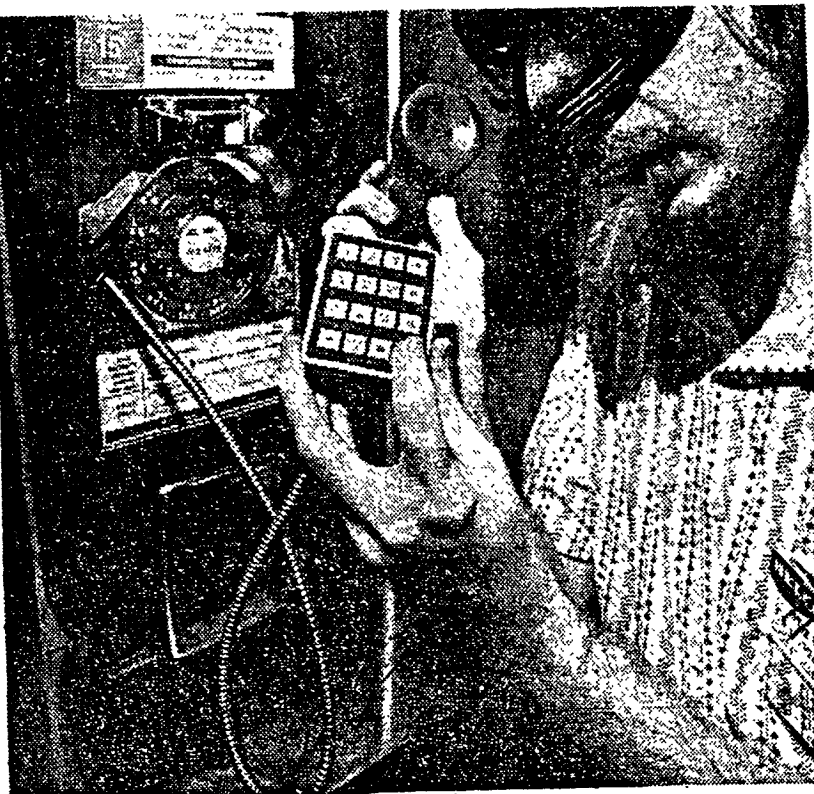
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now," he said, and the clarity of his voice coming out the other phone proved once again that the Bell System works. In this case, the plastic box had duplicated the system's own command signals and instructed the Automatic Call Distributor in New York to link the two calls from downtown Washington.

"This is called a loop-around," The Magician said. "Now sometimes, after one person hangs up, the ACD will become confused, and anyone calling New York for information will be routed to you. You can tell whatever you want — you're in control. Not only that, it's possible to seize an entire exchange."

Seize an exchange? For the benefit of novices, The Magician explained that an exchange was the first three digits of a seven-digit phone number.

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As he pressed a button on the box, it emitted a high-pitched tone that seemed to hold great significance for a computer in New York. The telephone's earpiece immediately started beeping. Then The Magician pressed another button, producing another tone, and the phone's beeping stopped.

"Now we've got an open line," said The Magician, putting down the receiver and going over to the adjacent pay phone. He borrowed 15 cents — "You'll get it right back," he promised — dialed the New York number again, repeated the whole procedure and asked a member of the audience to pick up the first phone.

"We're talking through New York

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"You can arrange for all long-distance calls coming into one exchange to be connected to you. This was done a couple of years ago in Santa Barbara. They held the exchange for an hour and told everyone who called that Santa Barbara had been destroyed in a nuclear accident. I think they finally had to stop when the police and the press started calling up."

The Magician hastened to add that he didn't approve of the prank, or, for that matter, of using the plas-

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# Phone Phreaks: Tapping Into the World of Ma Bell

From B-1

tic box to avoid paying for calls. His interest was purely theoretical, he said, and he actually sounded sincere. But many of his associates at the Gramercy yesterday were not quite so high-minded.

They were there for the Washington Area Telecommunications Symposium, a national gathering of people who refer to themselves in their literature as "telecommunications hobbyists." The more common term, though, is "phone phreaks" — people dedicated to the slogan, "Use Your Phone For All It's Worth."

They put on Lone Ranger masks at the door of the conference, registered under names like "The Phantom" and "Ima Dodger," and spent the day listening to lectures on the state of the art — how to hook up to the Defense Department's phone system, send Telex messages and telegrams, build decoders for receiving cable television programs and violate all sorts of other laws.

"Right now, without much effort you can be capable of sending voice and hard copy anywhere in the world for free," said the conference chairman, who used the name of an obscure science fiction character called Aubrey Phillipz. "We're working on sending packages."

About 75 people from across the country showed up, many of whom looked like former presidents of their high schools' ham radio clubs. They were computer specialists, electrical engineers, amateur electronics buffs. And, it was widely assumed, a few of them were infiltrators from Bell and other telecommunications companies.

"My boss heard about this and ordered me here," confided one man, who identified himself as a telecommunications executive at "one of the top 20 Fortune 500 companies." To his relief, he said, he'd heard no talk of new ways of abusing his company's private phone system.

The conference welcomed the infiltrators, since their money helps support the phone phreak movement. The movement is based in New York, where a few dozen phreaks meet weekly in a Greenwich Village restaurant and put out TAP, "The Hobbyist Newsletter for the Communications Revolution."

The newsletter was founded nine years ago by Abby Hoffman and a notorious phone phreak calling himself Al Bell. It was originally called the Youth International Party Line, but the true phone phreaks quickly became disenchanted with the connection to the Yippies.

"The phone phreaks, the techies, didn't like the politics, so the split and formed TAP," said Cheshire Catalyst, the alias of TAP's staff editor.

calls — The Magician's technique, for instance, is said to be a relatively new one. One of the oldest tricks, and still one of the best, is to build a device called a blue box, which can be done for less than \$100.

A blue box, which is similar to the plastic box used by The Magician, emits tones of the same frequency used by the phone system's computers. After dialing a toll-free 800 number, a caller uses the blue box to disconnect — "blow off" — the other end of the call and hook up to a trunk line. Then he uses the box to dial his call by emitting the appropriate tones.

There is also a black box, which allows someone to receive a call without the computer realizing that it's been connected — and therefore preventing the computer from billing for the call. And there's a red box, which duplicates the signal sent by a pay phone when change is dropped into it. A caller simply presses a button, and the operator thinks money has been inserted.

The people at the conference yesterday, naturally, already knew all about the boxes, so they spent their time discussing new techniques. They exchanged secret toll-free phone numbers used by engineers at the Bell System, discussed the abuse of Telex machines and speculated about getting access to satellite communications systems used by ships for navigation.

"Based on what we know about the satellites, I'd say that it would be possible to put two oil tankers on a collision course with one another," said Cheshire Catalyst, quickly assuring his audience that he had no intention of doing so. In fact, he said, he was only mentioning this in the hope that the appropriate officials would improve the security of the system.

"Most of the guys here are very responsible," said a computer specialist calling himself Dual Norton. "There are things you can do to tie up a whole trunk line, but they don't. They respect the system. They make fun of Bell, but these guys realize that it's beautiful the way it works. The fun is to discover the key to it and make it work for you."

The Bell system doesn't wholly appreciate this form of admiration, and its engineers have been busy inventing monitoring devices to foil phone phreaks. Bell has been successful in some ways — it's no longer completely safe to use a blue box on a home phone — and phone phreaks think that most of their tricks will no longer work as the phone network becomes more sophisticated.

But they insist that there will always be some way to foil the system — that there will always be

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"The phone phreaks, the techies, didn't like the politics, so the split and formed TAP," said Cheshire Catalyst, the alias of TAP's staff editor, who was dressed yesterday in a baby-blue beret adorned with an emblem, "Ma Bell Is A Cheap Mother."

Of the 1,000 subscribers to TAP, Catalyst said, probably 500 are officials in Bell and other companies concerned about phone fraud.

"It's our feeling that as long we just keep it quiet and among ourselves, they're not going to bother us," said Catalyst, explaining why authorities tolerate the free discussion of illegal techniques. "We're their tap on the underground. And as long as they pay their subscriptions, we can afford to put out a newsletter."

Phone phreaks say they're constantly coming up with hundreds of different ways of making toll-free

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But they insist that there will always be some way to foil the system — that there will always be room for what they call "electronic warfare." At yesterday's conference, for instance, much of the talk was of ways to use the new home computers to hook into the new data-transmission networks.

There is, however, one communications problem facing the phreaks: the high cost of postage. At yesterday's conference, TAP's editor said that TAP has already decided to reduce the number of issues a year from six to four. Unless more subscriptions came in, he said, there would be further cutbacks.

"Please," said the editor, who goes by the name of Tom Edison, "if you have any corrupt friends who are reading these issues, tell the cheap slob to get their own subscription. One copy to a customer."