



Exploding The Phone

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Abstract	Overview of phone phreaking circa 1973 in the Bay Area with perspective and personal history from a Stanford based phreak. Contains a brief history of phone phreaking and a general overview of the the technical aspects.
Keywords	phone phreaks; Santa Clara County, CA; Stanford University; Captain Crunch; Esquire article; 2600; Phred (Stanford based phone phreak); Joe Engressia; KZSU (Stanford's student run radio station); FBI; bookmakers

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Ma Bell Begins Crackdown On Phone Phreaks

By LARRY HUMMER

Phone phreaks have been having a field day in the past few years, but now Ma Bell is bringing up the heavy armor in the continuing Great Telephone War.

"Ripping off Ma Bell" has been ridiculously easy in the past, and thousands of people, particularly those with a yen for electronics, have gotten into the act. With their knowledge and illicit equipment, they have been able to make free telephone calls to anywhere in the world.

The favorite phone phreak device is called the "blue box," or "MPer"—for multifrequency tone signals. It is a relatively small device that imitates the switching language used by the telephone system. Switching is controlled by different callope tones, similar to the tones generated by a touch-tone telephone, but of different frequencies.

Phone phreaks generally initiate their calls by calling one of the toll-free area code 800 numbers, and then use their blue boxes to send their

own signals, to the switching equipment. By knowing the signal codes for the various trunk lines, phone phreaks can make free calls to any country in the world.

All that is recorded on the telephone records is a rather long call to an 800 commercial number. Phreaks avoid having the phone company's suspicions aroused by using pay phones, rather than their own home phones.

Major Center

Santa Clara County is a major center of phone phreaking, because of all the electronics industry in the area. Despite this, the Daily was hard pressed to get in touch with any phreaks here at Stanford. It is well known that the notorious Captain Crunch was brought to justice largely through clues that appeared in an Esquire magazine article about him in 1971.

Captain Crunch was one of the all

all-important "2600" tone, the frequency that allows phone phreaks to "seize a tandem," and thus talk to Paris or Karachi.

One of his great feats was to send his voice around the world several times to the phone booth right next to him. Thus, he was able to carry on conversations with himself. You have to be a little weird to be a hard-core phone phreak.

"Phred" (not his real name) is a Stanford phreak. His friends call him Phone Phreak Phred. Although he does not use a blue box, he is an avid student of the telephone system and this makes him representative of the phone phreak psychology.

No Hatred

Although Phred has made some toll free calls the phone company does not know about, he does not hate the telephone company and he is not about to do it in. On the contrary, he has often called the company to report trouble on its lines.

"The phone system," says Phred, "is an extremely complex system, and

finding out what makes it tick fascinates me. That's what motivates all phone phreaks. I find the phone company to be quite a marvelously technical thing. I may even work for her some day.

Her. Ma Bell can be a very real personal thing.

"It varies. Some really hate her, some like her," Phred says.

Joe Engressa, a blind phone phreak from Florida, desperately tried to get a job with the phone company. It was all he cared about. His arrest for phone phreaking brought him to the attention of the phone company, so he now works in Tennessee as a \$2 per hour trouble shooter.

A lot of phone phreaks are blind. A blind person can explore this area as well as a sighted person, better even, because blind people generally have better developed hearing.

Phred says he was at the "tender age" of ten when he discovered the

discovered that I could dial numbers by pushing on the switch hook."

Magazine Articles

A few years later, he met a blind guy who told him a lot about phones. When he was in junior college, Phred started amassing magazine articles on the subject.

Even without doing anything illegal, the phone system in Palo Alto provides endless fascination for Phred. He knows the numbers for all the special lines used by switchmen, and he has discovered various telephones

that will answer to two numbers, although they are not supposed to. The system is so large that just discovering its bugs is a huge task.

KZSU's phone phreaks entertain themselves by playing around with their own private telephone system, thus avoiding hassles with the telephone company.

The phone company has been increasingly worried about fraud, and is growing ever more sophisticated in catching it. Various devices have been

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Bell System

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developed to detect and monitor illegal calls, without actually listening to the conversations (which is illegal). The new "mf majority detector" can spot signals coming from blue boxes, because such signals are generally of poor quality. To top it off, the FBI has been known to tap the phones of suspected phreaks.

Bookmakers are a particular worry at the present time; reportedly blue boxes have been used to set up gambling rings. The company has always been less concerned about those who regard the system as a giant technological toy than about those who are basically out to defraud the system.