

CONTENTS

ALLNET HORRORS.....	4
PAGER TRICKS.....	5
TSPS GUIDE.....	6
TELECOM INFORMER.....	8
TELENET GUIDE.....	9
LETTERS.....	12
2600 MARKETPLACE.....	19

2600 Magazine
PO Box 752
Middle Island, NY 11953 U.S.A.

SECOND CLASS POSTAGE
Permit Pending at
East Setauket, N.Y.
11733
ISSN 0744-3351

WARNING:
MISSING LABEL



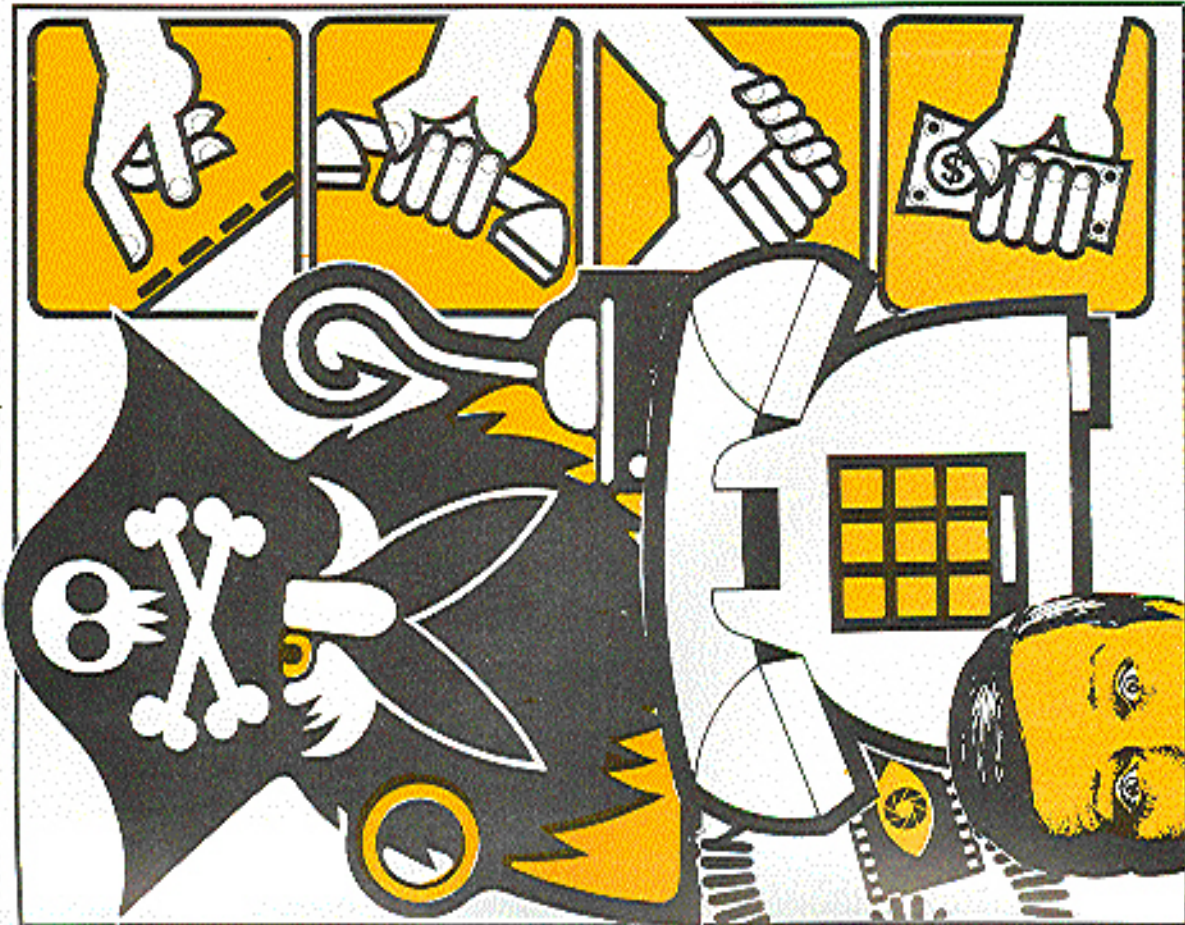
2600

The Monthly Journal of the American Hacker

Volume 4, Number 6

June, 1987

\$2





When you need a hand selling your favorite cause, we can help with full design, typesetting, composition, and printing services, all under one roof. Drop us a line.

UPPERHAND

12 Whitfield Lane
Corom, NY 11727

Or call us via 2600
(516) 751-2600

Our first ever public get-together was held in New York City earlier this month. It certainly won't be our last.

The opportunity to talk with some of our readers and get "real-time" feedback is something we don't take lightly. That's why we'll be back on future Friday afternoons.

While our New York City get-togethers will happen nearly every week, we will be stopping in other places as well. On Friday, July 31, we'll be in Philadelphia. Just where exactly we don't know yet. Look for specifics in the July issue or call the office after July 1st. Otherwise look for us in the Citicorp Center in New York Fridays at 5.

Our just meeting literally drew people from across the country. We thank them for the trouble. We had quite an interesting group—crossing nearly all

age and ethnic groups. Not too many females, though. Why is that anyway?

Besides getting a few new writers and attracting some curious onlookers, we discussed some important matters. How to store back issues without loose-key holes seems to be on everyone's mind.

There is a task force working on that. The future of 2600 bulletin boards was also talked about. Since the Private Sector is no longer in existence, we are in the process of looking for bulletin boards across the country, possibly serving as a network. We seem to have an abundance of software and sysops around here—what we need to know from the rest of our readers is what's open in other parts of the country and the world. If you'd like to run a BBS, write or call us and tell us what kind of equipment you have and what you'd like to see.

STAFFBOX

Editor and Publisher

Eric Corley 110

Office Manager

Fran Westbrook

Cover Art

Tish Vaiter Koch

Writers: John Drake, Paul Estev, Dan Foley, Mr. French, Emmanuel Goldstein, Chester Holmes, The Kid & Company, Lex Luthor, Bill from RNOG, David Ruderman, Bernie S., Mike Salerno, Silent Switchman, Mike Yuhass, and the usual anonymous bunch.

Production: Mike DeVoursney,
Cartoonists: Dan Holder, Mike Marshall,
Editor Emeritus: TSH.

2600 (ISSN 0749-3851) is published monthly by 2600 Enterprises, Inc., 7 Strong's Lane, Setauket, NY 11733. Second class postage permit pending at Setauket, New York.

POSTMASTER: Send address changes to 2600, P.O. Box 752, Middle Island, NY 11954-0752.

Yearly subscription: U.S. and Canada \$15 individual, \$40 corporate.
Overseas \$25 individual, \$55 corporate.

Back issues available at \$25 per year, \$30 per year overseas.
ADDRESS ALL SUBSCRIPTION CORRESPONDENCE TO: 2600 Subscription Dept., P.O. Box 752, Middle Island, NY 11954-0752.

For letters and article submissions, write to: 2600 Editorial Dept., P.O. Box 99, Middle Island, NY 11953-0752.

ALLNET!

by Mike Yuhus

A feature in April's 2600 noted that Allnet would give customers five bucks credit if they persuaded a friend to sign up for Allnet's equal access service. If you recall, this pyramid scheme was a wee bit deceiving—the friend would need to designate Allnet as their *primary* carrier. April must have surely been a good month for promotional creativity over at Allnet: I ended up with Allnet as my primary carrier, *without my consent!!!*

This tale begins in February, shortly after I had started a new job. Part of my job requirement is to spend some time on the phone talking to clients, etc., in the evenings. Since these calls would be reimbursed by my company, I decided to use another long distance carrier to make accounting easier. At random, I chose Allnet. This was to be a stopgap measure until I had received my MCI Cards (TM). (Remember that with equal access, if you want to make calls on a secondary carrier, i.e., not your primary carrier, all you would need to do is dial 10XXX (XXX being the identification code of the secondary carrier) plus the number you wish to reach. The local Bell company would then bill you in the event you didn't have an account with this carrier. It's also interesting to note that this billing cycle is often delayed by several months.)

A few weeks after I had made a bunch of Allnet calls, I got a call from someone who skinned she was from Allnet, saying that her records indicated I had been using Allnet, and would I give her my name and address so Allnet would bill me directly, instead of letting my local Bell company bill me. It sounded like a reasonable request—they wanted to get their funds quicker—so I asked her to recite some of the numbers I dialed to prove her affiliation. Thus convinced, I gave her the information she asked for. At no time did she mention anything about setting me up with Allnet as my primary carrier.

But that is precisely what happened. A few days later, my postman delivered a form letter: "Welcome to Allnet 'Dial-1' Long Distance Service. You now have the benefits.... You are a highly valued Allnet customer...." and a load of other diplomatic rubbish from Allnet's Director of Customer Service, Elaine Delves. It listed a toll free customer service number, 800-982-4422, for questions, changes and "suggestions for improving our service." I felt my blood pressure rise about fifty billion points as I read. I wanted Sprint back!!! Of course, I called their number, and was put on hold for about 20 minutes. The fellow who finally answered said that no one in customer service had switched me over to Allnet, so naturally, there was

A Horror Story

absolutely nothing he could do to remedy the situation. He suggested I call my local Allnet office on 215-567-8080.

Bennett Kolber, who is apparently some sort of big shot in Allnet's Philadelphia office, listened to my story. That Allnet had surreptitiously (and you thought only hackers and the folks in the National Security Council acted surreptitiously) connected me to their network, and I wanted to be reconnected back to Sprint, and that I would not call my local Bell company to make those arrangements due to the principle of the thing, not to mention that they'd charge me five bucks for the change. My plight must have really hit home with him because he said he'd look in to the matter and promised—*promised*—that I'd get connected back to Sprint within a couple of days.

Unfortunately, he did not define the term "couple."

I had spoken with him a "couple" of times to try to resolve the affair in an expeditious manner. I got nowhere. I then spoke with Steve Edmonds, who also seemed sincerely disturbed by my

situation. I thought my fortunes would change.

My fortunes stayed the same. Now I was mad. I spoke to a bigger big shot named Bill Love. He was new on the job, he said, but he would rectify my problem *immediately*. After waiting a week, I called again. And again. He finally said something like this: "I'm sorry, okay, that it's taken us, okay, so long, okay, to get this matter resolved. But since I, okay, don't represent Sprint, okay, or your company, okay, there's no way, okay, that we can switch you back, okay, to Sprint." (He really did talk that way.) In short, I would have to call my local Bell company, arrange to be disconnected from Allnet, and deduct the \$5 charge from my bill.

There have got to be serious internal problems with a company that asserts that I am "a highly valued customer" but seems to go out of its way to make me feel damn sure that I won't do business with them in this century. If I can help it, it took these clowns over a month to tell me that they were indeed powerless to satisfy me, but my local Bell company had the problem fixed in one five-minute phone call.

paging for free

by Bernia S.

Did you ever want a beeper or paging service but decide against it because of the cost? Well, in many areas the local voice paging system can be used without charge!

First, a brief description of how a voice paging system works. Many voice paging systems work by broadcasting all paging traffic on the same radio frequency in the VHF band around 150 MHz. All pagers on that system are tuned to the same radio frequency but each one has an audio tone decoder tuned to a unique sequence of audio tones. Every subscriber is assigned a different local or toll-free phone number that people should call when they want to reach him through his

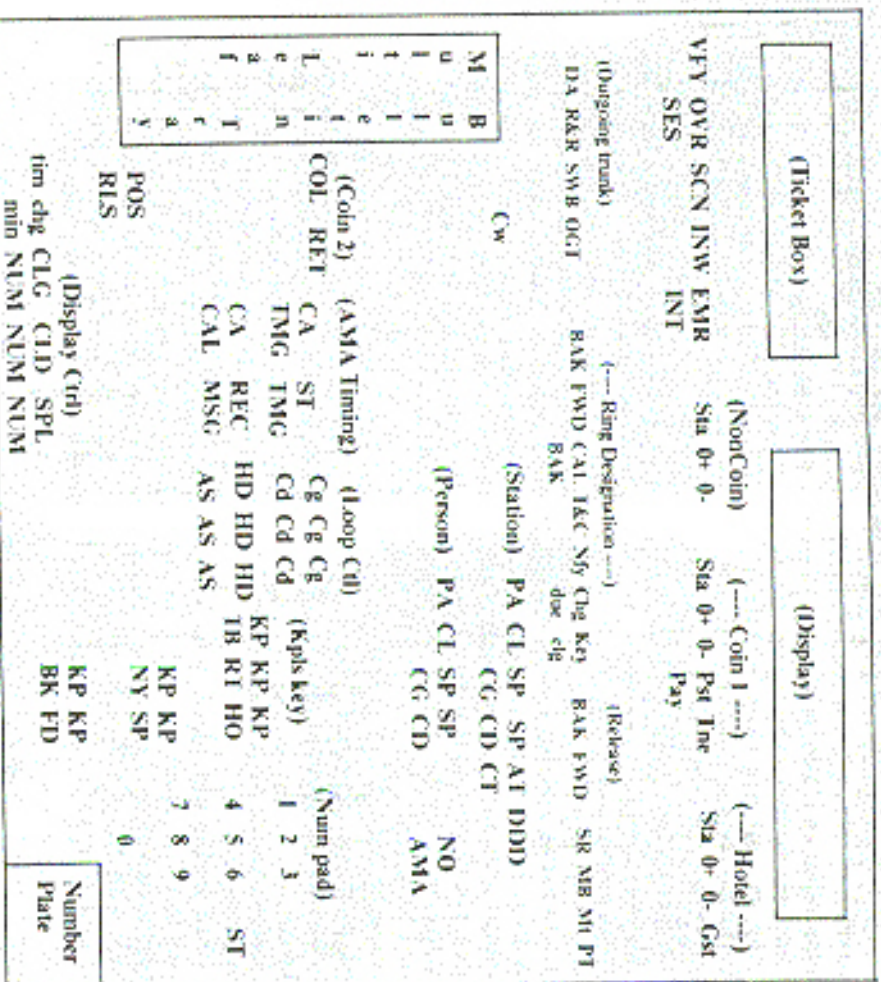
pager. When that number is dialed, the caller hears a tone which prompts him to start his verbal message. This is limited to a few seconds, after which another tone cuts him off. This voice message is then temporarily stored in an audio tape buffer or a digital memory subsystem before being routed to the paging transmitter. A unique tone sequence is broadcast just prior to the voice message which triggers the appropriate paging receiver so the subscriber only hears messages intended for him and not everyone else's on that same frequency. The pager times out after the fixed-length message is over.

A couple of years ago while listening to the



A HACKER'S GUIDE

TO THE TSPS CONSOLE



100-B TSPS Console Layout

Abbreviations in capital letters are illuminated keys

Abbreviations in lower case are non-illuminated keys

Abbreviations in upper and lower case are lamps only

by The Marauder and The Legion of Doom

In this article we will discuss the basic layout, description, and use of the keys found on the standard AT&T 100-B TSPS Console. Possible uses for the information contained herein (besides for just wanting to know about the TSPS Console) are primarily social engineering applications. The more you know about operators and their jobs, the more you can get them to do things for you. Above is the standard AT&T 100-B console layout. While there may be additional or different

a number of routing, the console buffers the KP+illumination digits until the ST (start) key is pressed, at which time it plays the buffered KP+info digits+ST onto the trunk in a uniformly spaced sequence. So if you were somehow able to listen in on a TSO actually routing a call, it would not sound like someone placing a call on a standard touch-tone telephone (or home-made blue box), but more like someone pressing a "redial key" on a touch-tone phone, except that the tones would be MF tones, not touch tones. The duration of the tone and space between the tones are a network-wide standard, although the network in most cases is quite tolerant to deviations of this standard. (This "loose" tolerance is what allows us to simulate in-band signaling with our blue boxes).

At the upper left hand side of the diagram you will see the **ticket box**. This box has 4 slots marked **New**, **Cancel**, **Scratch**, and **Completed**. I believe this is used for manually filled out trouble and/or trouble tickets. As far as I know, manually filled time tickets are a thing of the past, however in case of equipment failure the tickets are presumably available. The TSO would manually fill out a trouble ticket to report trouble reaching a number out of her LAN (Local Area Network)—or the area directly served by her particular TSPS position), whereas to report trouble with a number in her LAN she would simply key in a trouble code (utilizing the **KP-TRBL** (Trouble) key) to automatically place a trouble report.

To the right of the Ticket box you will see the **display**. The display works in conjunction with certain keys on the console, and is used to display timing information (hours, minutes, seconds), cost per minute, calling number identification (what most people refer to as **TSPS ANI**), numbers called, and various special codes. The console display can be in one of two states, either displaying digits or displaying nothing (dark). Both of these states have different meanings when resulting from certain procedures attempted by a TSO. Lighted keys and lamps on the console can be in one of three states: not illuminated (dark), illuminated, or flashing. Again, the state of a lamp/lamp-key means different things under different conditions. Below the Ticket box you will see a row of 5

keys starting with the key labeled "VIFY" (Verify). These are various special purpose keys used by TSPS that have no real "grouping" unlike the other "key groups". These are:

- (VIFY) — Verify, illuminated key. Used in conjunction with the keypad, it allows the TSO to verify (listen in) on a telephone call that is in progress, although any conversation taking place on that call is scrambled to the TSO, and despite popular belief, the scrambling process is done at the console level, and not on the trunk level. If you were to somehow gain access to a verification trunk from a non-TSPS position, the conversation would not be scrambled.

- (OVR SES) — Overseas, illuminated key. Used in overseas call completion through an Overseas Call Completion Center/Server (OCCC). I believe it also allows the TSO to key in more than 10 digits (standard POTS) for 10DDO call completion.
- (SCHN) — Screen, illuminated key. Lights to notify the TSO that an incoming call has an associated screening code (for example, 74=collect calls only, 93=special billing). Depressing this key causes the code to show on display, and it's up to the TSO to decipher the code and explain its meaning to the customer if he/she is attempting something forbidden by his associated screening code. (For instance, prison phones have a screening code of 74, allowing them to place collect calls only).

- (INNW) — Inward, illuminated key. (Lights to notify the TSO that the incoming call is "Operator to key and saying, "Inward". In most cases inward operators are actually TSPS operators with their inward lamps lit).
- (EMR INT) — Emergency Interrupt, illuminated key. Used in conjunction with the VIFY key to interrupt a call in progress while a line verification is being done. Pressing this key causes an audible "beep" to be applied to the line, and de-activates the console scrambling (for roughly 30 seconds), allowing the TSO to talk to the parties being verified/interrupted. Use of this key and the VIFY key, is constantly kept track of via various security and maintenance TTY's. Any abuse/misuse will set off alarms.

To the right of the above set of keys you will see three groups of lamps/keys labeled "Non-

the telecom informer

BY DAN FOLEY

The passage of the Electronic Privacy Act (see the April column) provides a timely legal barrier to eavesdropping on cellular phone calls. The more logical response to eavesdropping would be encryption. There are many products on the market that encrypt telephone conversations (both cellular and normal wireline). These range from mere audio inverters (which take the voice signal and invert it—with training, one can even understand inverted conversations) to digitalizing the voice and passing the data stream through a DES encryption scheme. However, one then has to buy encryption gear at both ends of the call. Since the area of concern is the cellular link, it seems obvious that the cellular phone companies should provide this, and decrypt the call when it gets to their central switch before being passed to the normal phone lines. So far, only one cellular company does this—Bell Atlantic Mobile Systems. In the Washington and Baltimore area, Bell Atlantic offers central switch based cellular encryption. The cellular phone user, however, must buy the AT&T 1620E encryption device (\$2,550), which has been approved by the National Security Agency. It uses a proprietary digital encryption algorithm, offering data transmission at 300, 1200, and 2400 bits per second. Scanner users will only hear a hissing if they attempt to listen in. This represents a step in the right direction, but until this becomes widespread, cellular phone users can't really depend on the privacy of their calls.

Violations

An outspoken corporate supporter of the new cellular privacy laws is now alleged to engage in illegal cellular interception. In a complaint filed with the FCC, Metroplex Telephone Company charged that its wireline

competitor in Dallas, Southwestern Bell Mobile Systems (SBMS), engages in "deliberate commercial spying" by monitoring data transmissions of the Metroplex network for its own competitive benefit. In its response, SBMS admitted that it monitored Metroplex transmissions, but only to "obtain an estimate of its market share" and "has not used the information for its own or another's benefit." SBMS said that "transmissions that may be intercepted by the use of readily available scanning equipment are not protectable," even though in Congressional testimony it argued for laws to protect communications privacy regardless of the technology used to provide the communications service. SBMS also termed the cellular signals it received "noncommunicative" and contended that Section 705 of the Communications Act (which prohibits unauthorized use of radio transmissions) "does not apply to cellular data transmissions." Metroplex replied that SBMS "presents a totally confused and inaccurate picture of interception law" and said that its competitor has been "caught with its hands in the cookie jar."

Predictions

A market research report by Frost and Sullivan projects a sixfold increase in the number of European cellular subscribers from the 240,000 using the service at the end of 1985. "This optimistic scenario is drawn for Europe in spite of acknowledged pitfalls as high subscriber costs and some poor reception quality," the research firm said in a news release. The report predicts that shipments of mobile phones will reach 510,000 by the end of the decade, amounting to \$566 million. Usage revenues will amount to \$384 million a year by then, yielding a total 1989 cellular market "just shy of \$1.5 billion."

(Continued on page 20)

More Telenet Addresses

41500	10 2305	Atlanta	41522	10 2710	Atlanta	41523	10 2710	Atlanta	41524	10 2710	Atlanta	41525	10 2710	Atlanta	41526	10 2710	Atlanta	41527	10 2710	Atlanta	41528	10 2710	Atlanta	41529	10 2710	Atlanta	41530	10 2710	Atlanta	41531	10 2710	Atlanta	41532	10 2710	Atlanta	41533	10 2710	Atlanta	41534	10 2710	Atlanta	41535	10 2710	Atlanta	41536	10 2710	Atlanta	41537	10 2710	Atlanta	41538	10 2710	Atlanta	41539	10 2710	Atlanta	41540	10 2710	Atlanta	41541	10 2710	Atlanta	41542	10 2710	Atlanta	41543	10 2710	Atlanta	41544	10 2710	Atlanta	41545	10 2710	Atlanta	41546	10 2710	Atlanta	41547	10 2710	Atlanta	41548	10 2710	Atlanta	41549	10 2710	Atlanta	41550	10 2710	Atlanta	41551	10 2710	Atlanta	41552	10 2710	Atlanta	41553	10 2710	Atlanta	41554	10 2710	Atlanta	41555	10 2710	Atlanta	41556	10 2710	Atlanta	41557	10 2710	Atlanta	41558	10 2710	Atlanta	41559	10 2710	Atlanta	41560	10 2710	Atlanta	41561	10 2710	Atlanta	41562	10 2710	Atlanta	41563	10 2710	Atlanta	41564	10 2710	Atlanta	41565	10 2710	Atlanta	41566	10 2710	Atlanta	41567	10 2710	Atlanta	41568	10 2710	Atlanta	41569	10 2710	Atlanta	41570	10 2710	Atlanta	41571	10 2710	Atlanta	41572	10 2710	Atlanta	41573	10 2710	Atlanta	41574	10 2710	Atlanta	41575	10 2710	Atlanta	41576	10 2710	Atlanta	41577	10 2710	Atlanta	41578	10 2710	Atlanta	41579	10 2710	Atlanta	41580	10 2710	Atlanta	41581	10 2710	Atlanta	41582	10 2710	Atlanta	41583	10 2710	Atlanta	41584	10 2710	Atlanta	41585	10 2710	Atlanta	41586	10 2710	Atlanta	41587	10 2710	Atlanta	41588	10 2710	Atlanta	41589	10 2710	Atlanta	41590	10 2710	Atlanta	41591	10 2710	Atlanta	41592	10 2710	Atlanta	41593	10 2710	Atlanta	41594	10 2710	Atlanta	41595	10 2710	Atlanta	41596	10 2710	Atlanta	41597	10 2710	Atlanta	41598	10 2710	Atlanta	41599	10 2710	Atlanta	41600	10 2710	Atlanta	41601	10 2710	Atlanta	41602	10 2710	Atlanta	41603	10 2710	Atlanta	41604	10 2710	Atlanta	41605	10 2710	Atlanta	41606	10 2710	Atlanta	41607	10 2710	Atlanta	41608	10 2710	Atlanta	41609	10 2710	Atlanta	41610	10 2710	Atlanta	41611	10 2710	Atlanta	41612	10 2710	Atlanta	41613	10 2710	Atlanta	41614	10 2710	Atlanta	41615	10 2710	Atlanta	41616	10 2710	Atlanta	41617	10 2710	Atlanta	41618	10 2710	Atlanta	41619	10 2710	Atlanta	41620	10 2710	Atlanta	41621	10 2710	Atlanta	41622	10 2710	Atlanta	41623	10 2710	Atlanta	41624	10 2710	Atlanta	41625	10 2710	Atlanta	41626	10 2710	Atlanta	41627	10 2710	Atlanta	41628	10 2710	Atlanta	41629	10 2710	Atlanta	41630	10 2710	Atlanta	41631	10 2710	Atlanta	41632	10 2710	Atlanta	41633	10 2710	Atlanta	41634	10 2710	Atlanta	41635	10 2710	Atlanta	41636	10 2710	Atlanta	41637	10 2710	Atlanta	41638	10 2710	Atlanta	41639	10 2710	Atlanta	41640	10 2710	Atlanta	41641	10 2710	Atlanta	41642	10 2710	Atlanta	41643	10 2710	Atlanta	41644	10 2710	Atlanta	41645	10 2710	Atlanta	41646	10 2710	Atlanta	41647	10 2710	Atlanta	41648	10 2710	Atlanta	41649	10 2710	Atlanta	41650	10 2710	Atlanta	41651	10 2710	Atlanta	41652	10 2710	Atlanta	41653	10 2710	Atlanta	41654	10 2710	Atlanta	41655	10 2710	Atlanta	41656	10 2710	Atlanta	41657	10 2710	Atlanta	41658	10 2710	Atlanta	41659	10 2710	Atlanta	41660	10 2710	Atlanta	41661	10 2710	Atlanta	41662	10 2710	Atlanta	41663	10 2710	Atlanta	41664	10 2710	Atlanta	41665	10 2710	Atlanta	41666	10 2710	Atlanta	41667	10 2710	Atlanta	41668	10 2710	Atlanta	41669	10 2710	Atlanta	41670	10 2710	Atlanta	41671	10 2710	Atlanta	41672	10 2710	Atlanta	41673	10 2710	Atlanta	41674	10 2710	Atlanta	41675	10 2710	Atlanta	41676	10 2710	Atlanta	41677	10 2710	Atlanta	41678	10 2710	Atlanta	41679	10 2710	Atlanta	41680	10 2710	Atlanta	41681	10 2710	Atlanta	41682	10 2710	Atlanta	41683	10 2710	Atlanta	41684	10 2710	Atlanta	41685	10 2710	Atlanta	41686	10 2710	Atlanta	41687	10 2710	Atlanta	41688	10 2710	Atlanta	41689	10 2710	Atlanta	41690	10 2710	Atlanta	41691	10 2710	Atlanta	41692	10 2710	Atlanta	41693	10 2710	Atlanta	41694	10 2710	Atlanta	41695	10 2710	Atlanta	41696	10 2710	Atlanta	41697	10 2710	Atlanta	41698	10 2710	Atlanta	41699	10 2710	Atlanta	41700	10 2710	Atlanta	41701	10 2710	Atlanta	41702	10 2710	Atlanta	41703	10 2710	Atlanta	41704	10 2710	Atlanta	41705	10 2710	Atlanta	41706	10 2710	Atlanta	41707	10 2710	Atlanta	41708	10 2710	Atlanta	41709	10 2710	Atlanta	41710	10 2710	Atlanta	41711	10 2710	Atlanta	41712	10 2710	Atlanta	41713	10 2710	Atlanta	41714	10 2710	Atlanta	41715	10 2710	Atlanta	41716	10 2710	Atlanta	41717	10 2710	Atlanta	41718	10 2710	Atlanta	41719	10 2710	Atlanta	41720	10 2710	Atlanta	41721	10 2710	Atlanta	41722	10 2710	Atlanta	41723	10 2710	Atlanta	41724	10 2710	Atlanta	41725	10 2710	Atlanta	41726	10 2710	Atlanta	41727	10 2710	Atlanta	41728	10 2710	Atlanta	41729	10 2710	Atlanta	41730	10 2710	Atlanta	41731	10 2710	Atlanta	41732	10 2710	Atlanta	41733	10 2710	Atlanta	41734	10 2710	Atlanta	41735	10 2710	Atlanta	41736	10 2710	Atlanta	41737	10 2710	Atlanta	41738	10 2710	Atlanta	41739	10 2710	Atlanta	41740	10 2710	Atlanta	41741	10 2710	Atlanta	41742	10 2710	Atlanta	41743	10 2710	Atlanta	41744	10 2710	Atlanta	41745	10 2710	Atlanta	41746	10 2710	Atlanta	41747	10 2710	Atlanta	41748	10 2710	Atlanta	41749	10 2710	Atlanta	41750	10 2710	Atlanta	41751	10 2710	Atlanta	41752	10 2710	Atlanta	41753	10 2710	Atlanta	41754	10 2710	Atlanta	41755	10 2710	Atlanta	41756	10 2710	Atlanta	41757	10 2710	Atlanta	41758	10 2710	Atlanta	41759	10 2710	Atlanta	41760	10 2710	Atlanta	41761	10 2710	Atlanta	41762	10 2710	Atlanta	41763	10 2710	Atlanta	41764	10 2710	Atlanta	41765	10 2710	Atlanta	41766	10 2710	Atlanta	41767	10 2710	Atlanta	41768	10 2710	Atlanta	41769	10 2710	Atlanta	41770	10 2710	Atlanta	41771	10 2710	Atlanta	41772	10 2710	Atlanta	41773	10 2710	Atlanta	41774	10 2710	Atlanta	41775	10 2710	Atlanta	41776	10 2710	Atlanta	41777	10 2710	Atlanta	41778	10 2710	Atlanta	41779	10 2710	Atlanta	41780	10 2710	Atlanta	41781	10 2710	Atlanta	41782	10 2710	Atlanta	41783	10 2710	Atlanta	41784	10 2710	Atlanta	41785	10 2710	Atlanta	41786	10 2710	Atlanta	41787	10 2710	Atlanta	41788	10 2710	Atlanta	41789	10 2710	Atlanta	41790	10 2710	Atlanta	41791	10 2710	Atlanta	41792	10 2710	Atlanta	41793	10 2710	Atlanta	41794	10 2710	Atlanta	41795	10 2710	Atlanta	41796	10 2710	Atlanta	41797	10 2710	Atlanta	41798	10 2710	Atlanta	41799	10 2710	Atlanta	41800	10 2710	Atlanta	41801	10 2710	Atlanta	41802	10 2710	Atlanta	41803	10 2710	Atlanta	41804	10 2710	Atlanta	41805	10 2710	Atlanta	41806	10 2710	Atlanta	41807	10 2710	Atlanta	41808	10 2710	Atlanta	41809	10 2710	Atlanta	41810	10 2710	Atlanta	41811	10 2710	Atlanta	41812	10 2710	Atlanta	41813	10 2710	Atlanta	41814	10 2710	Atlanta	41815	10 2710	Atlanta	41816	10 2710	Atlanta	41817	10 2710	Atlanta	41818	10 2710	Atlanta	41819	10 2710	Atlanta	41820	10 2710	Atlanta	41821	10 2710	Atlanta	41822	10 2710	Atlanta	41823	10 2710	Atlanta	41824	10 2710	Atlanta	41825	10 2710	Atlanta	41826	10 2710	Atlanta	41827	10 2710	Atlanta	41828	10 2710	Atlanta	41829	10 2710	Atlanta	41830	10 2710	Atlanta	41831	10 2710	Atlanta	41832	10 2710	Atlanta	41833	10 2710	Atlanta	41834	10 2710	Atlanta	41835	10 2710	Atlanta	41836	10 2710	Atlanta	41837	10 2710	Atlanta	41838	10 2710	Atlanta	41839	10 2710	Atlanta	41840	10 2710	Atlanta	41841	10 2710	Atlanta	41842	10 2710	Atlanta	41843	10 2710	Atlanta	41844	10 2710	Atlanta	41845	10 2710	Atlanta	41846	10 2710	Atlanta	41847	10 2710	Atlanta	41848	10 2710	Atlanta	41849	10 2710	Atlanta	41850	10 2710	Atlanta	41851	10 2710	Atlanta	41852	10 2710	Atlanta	41853	10 2710	Atlanta	41854	10 2710	Atlanta	41855	10 2710	Atlanta	41856	10 2710	Atlanta	41857	10 2710	Atlanta	41858	10 2710	Atlanta	41859	10 2710	Atlanta	41860	10 2710	Atlanta	41861	10 2710	Atlanta	41862	10 2710	Atlanta	41863	10 2710	Atlanta	41864	10 2710	Atlanta	41865	10 2710	Atlanta	41866	10 2710	Atlanta	41867	10 2710	Atlanta	41868	10 2710	Atlanta	41869	10 2710	Atlanta	41870	10 2710	Atlanta	41871	10 2710	Atlanta	41872	10 2710	Atlanta	41873	10 2710	Atlanta	41874	10 2710	Atlanta	41875	10 2710	Atlanta	41876	10 2710	Atlanta	41877	10 2710	Atlanta	41878	10 2710	Atlanta	41879	10 2710	Atlanta	41880	10 2710	Atlanta	41881	10 2710	Atlanta	41882
-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------	---------	---------	-------

Letters, po box 99,

A Mystery

Dear 2600:

When we in Grand Blanc, MI had crossbar in the 694 and 695 exchange, we could simply pick up the phone and dial 930. If I fused two lines together you could enter a phone number after a short code that was shortly hacked out, and listen to anything on that line. Could you explain just exactly what that was, and/or how it worked? Now on ESS-5 it is busied out.

Silicon Rat and the Mice
We don't know what it was you did, but if anyone out there has knowledge on the subject, we'd be most happy to hear about it. Numbers such as the one you've mentioned have long been rumored to exist, but conclusive proof simply hasn't been presented.

In Reply

Dear 2600:

This letter is to reply to your review of *ATM III* in the February issue of 2600. A few of the comments made about *ATM III* were valid. However, the review contains so many gross and unfair distortions that I must question the reviewer's agenda. The reviewer's flippancy attitude about our freedoms and privacy reinforces this suspicion. Our response to some of his complaints are:

(1) The size of the print used in *ATM III* is 75 percent of elite type, and is larger than the print used in many national publications. It is very readable. *ATM III* is compactly and concisely written and contains more info in 18 pages than many books 100+ pages long. *ATM III* is one of a kind—this info is not found in any other publication available to the general public!

(2) *ATM III* is reproduced on a Canon NP-155 copier. Some variations in quality may exist, but to make a blanket

statement that *ATM III* consists of 18 badly xeroxed pages is a gross exaggeration! A copier allows us to economically make a smaller number of copies so that we can update publications when important new information arrives.

(3) *ATM III* has one "cartoon" and does not contain "cartoons". Another gross distortion made is the reviewer's assertion that most of the newspaper clippings provided in *ATM III* have nothing to do with ATM fraud. *ATM III* summarizes 31 news articles. Of these, 28 relate to ATM and debit fraud, one to ATM networking, one to night depository crimes, and one to PAC contributions.

(4) This reviewer badly glosses over the three-page feedback questionnaire, which, in itself, contains many, many ATM security insights. And it permits anyone to systematically make an in-depth security analysis of ATMs. And, by way of feedback, it provides us more specific info for future editions of *ATM*.

(5) While the reviewer felt that my statement, "ominous risks to our freedoms and privacy" was "enter-taining reading" to him, many people regard the impact of EFT devices upon our freedoms and privacy as extremely grave. About 75 percent of the feedback we receive regarding these "ravings" are favorable. About 25 percent are not. They add to the seriousness of the work because they make it clear that ATMs are a serious threat to average, law-abiding citizens.

(6) The current price of *ATM III* is \$20. If anyone wants to produce his own, unique ATM publication at a lower price, he's certainly entitled to do so.

(7) 90+ percent of the material that goes into our publications is contributed by readers. We are not afraid to publish anything on ATMs—

middle island, ny 11953-0099

no matter how lengthy, detailed, or shocking. But only if we can obtain that info. We are working on *ATM IV*. Please contribute info to it. Our publications are what you make of them!

John J. Williams

President, Consumertronics
P.O. Drawer 537
Alamogordo, NM 88310

Military Madness

Dear 2600:

I recently ordered a book that was confiscated by the military. Apparently they feel 2600 is safe to read, so I don't mind the lack of an envelope. I do like the new format.

Thanks for the info on TAP and Computer! I lost money on TAP.

I'd like to see more hardware info. I am fairly competent on computer architecture (I built a home-brew using a Z-80 and have started on a robot), but I can't find telecommunications stuff. I'd like to build a modem for my home-brew. Any suggestions?

MDLP

Ads in the 2600 Marketplace usually yield quick results. And they're free to subscribers.

More Publications

Dear 2600:

As an avid info junkie, I suggest you print a list of recommended readings in a future issue. You often refer to publications that seem interesting and related to the info/telecom enthusiast, but are usually unobtainable at my local newsstand or library. Addresses and subscription/sample copy information for magazines like *The Ace*, *Monitoring Times*, *Pay Phone Magazine* and no doubt many others which you receive would be appreciated. (How about contacting Mark Tobias and printing an unexpurgated version of his payphone article?)

I look forward to your reply.

Best wishes from 216

Tabula Rasa

The Ace and Monitoring Times provide a great look at the exciting and subversive world of radio. The Ace costs \$12 a year and their address is PO Box 46199, Baton Rouge, LA 70895-46199 (first 10-digit zip we've ever encountered). Monitoring Times is \$15 a year and you can write to: Grove Enterprises, PO Box 98, Brasstown, NC 28902. Payphone Magazine is in its third year now. They print lots of neat articles and advertisements on payphones. Subscriptions are \$33 a year and their address is P.O. Box 42371, Houston, TX 77242. Let us know about any other good magazines out there.

Additional Facts

Dear 2600:

Regarding the mini-review of *Who, What, and Where in Communications Security* (page 21, April issue), here are a few additional facts your readers might find useful:

(1) The 1981 edition was mostly a compilation of information from manufacturers' brochures about security-related products, along with a "selected bibliography", a section explaining commonly-used acronyms, a glossary of communications terms, and some introductory articles about various aspects of communications security. It's nice to have all that information in one place (even though it contained nothing that you couldn't have learned by reading easily-available trade journals, or attending any of the comsec conventions or trade shows), but the price for this convenience was a bit steep—\$175.

(2) The above book was actually a minor revision of a study first done for Uncle. It first appeared as a National Telecommunications and Information Administration Contractor Report, # NTA-CR-80-9, "Users' [sic] Guide, Voice and Data Communications

(continued on page 18)

Telenet

At 10:00 AM on 6/28/87, your Telenet system temporarily cut off service. If at any address you receive this message, please call your Telenet host, or call 1-800-370-7272 or your other access to connect to the system. No additional charges will be assessed for this operation. All charges will be assessed as at the end of service.

Page 14 June 1987 2600

1012554: Security Suspended. Please enter your security code?
 1012555: 1012554
 1012556: 1012555
 1012557: 1012556
 1012558: 1012557
 1012559: 1012558
 1012560: 1012559
 1012561: 1012560
 1012562: 1012561
 1012563: 1012562
 1012564: 1012563
 1012565: 1012564
 1012566: 1012565
 1012567: 1012566
 1012568: 1012567
 1012569: 1012568
 1012570: 1012569
 1012571: 1012570
 1012572: 1012571
 1012573: 1012572
 1012574: 1012573
 1012575: 1012574
 1012576: 1012575
 1012577: 1012576
 1012578: 1012577
 1012579: 1012578
 1012580: 1012579
 1012581: 1012580
 1012582: 1012581
 1012583: 1012582
 1012584: 1012583
 1012585: 1012584
 1012586: 1012585
 1012587: 1012586
 1012588: 1012587
 1012589: 1012588
 1012590: 1012589
 1012591: 1012590
 1012592: 1012591
 1012593: 1012592
 1012594: 1012593
 1012595: 1012594
 1012596: 1012595
 1012597: 1012596
 1012598: 1012597
 1012599: 1012598
 1012600: 1012599

1012601: 1012600
 1012602: 1012601
 1012603: 1012602
 1012604: 1012603
 1012605: 1012604
 1012606: 1012605
 1012607: 1012606
 1012608: 1012607
 1012609: 1012608
 1012610: 1012609
 1012611: 1012610
 1012612: 1012611
 1012613: 1012612
 1012614: 1012613
 1012615: 1012614
 1012616: 1012615
 1012617: 1012616
 1012618: 1012617
 1012619: 1012618
 1012620: 1012619
 1012621: 1012620
 1012622: 1012621
 1012623: 1012622
 1012624: 1012623
 1012625: 1012624
 1012626: 1012625
 1012627: 1012626
 1012628: 1012627
 1012629: 1012628
 1012630: 1012629
 1012631: 1012630
 1012632: 1012631
 1012633: 1012632
 1012634: 1012633
 1012635: 1012634
 1012636: 1012635
 1012637: 1012636
 1012638: 1012637
 1012639: 1012638
 1012640: 1012639
 1012641: 1012640
 1012642: 1012641
 1012643: 1012642
 1012644: 1012643
 1012645: 1012644
 1012646: 1012645
 1012647: 1012646
 1012648: 1012647
 1012649: 1012648
 1012650: 1012649
 1012651: 1012650
 1012652: 1012651
 1012653: 1012652
 1012654: 1012653
 1012655: 1012654
 1012656: 1012655
 1012657: 1012656
 1012658: 1012657
 1012659: 1012658
 1012660: 1012659
 1012661: 1012660
 1012662: 1012661
 1012663: 1012662
 1012664: 1012663
 1012665: 1012664
 1012666: 1012665
 1012667: 1012666
 1012668: 1012667
 1012669: 1012668
 1012670: 1012669
 1012671: 1012670
 1012672: 1012671
 1012673: 1012672
 1012674: 1012673
 1012675: 1012674
 1012676: 1012675
 1012677: 1012676
 1012678: 1012677
 1012679: 1012678
 1012680: 1012679
 1012681: 1012680
 1012682: 1012681
 1012683: 1012682
 1012684: 1012683
 1012685: 1012684
 1012686: 1012685
 1012687: 1012686
 1012688: 1012687
 1012689: 1012688
 1012690: 1012689
 1012691: 1012690
 1012692: 1012691
 1012693: 1012692
 1012694: 1012693
 1012695: 1012694
 1012696: 1012695
 1012697: 1012696
 1012698: 1012697
 1012699: 1012698
 1012700: 1012699

1012701: 1012700
 1012702: 1012701
 1012703: 1012702
 1012704: 1012703
 1012705: 1012704
 1012706: 1012705
 1012707: 1012706
 1012708: 1012707
 1012709: 1012708
 1012710: 1012709
 1012711: 1012710
 1012712: 1012711
 1012713: 1012712
 1012714: 1012713
 1012715: 1012714
 1012716: 1012715
 1012717: 1012716
 1012718: 1012717
 1012719: 1012718
 1012720: 1012719
 1012721: 1012720
 1012722: 1012721
 1012723: 1012722
 1012724: 1012723
 1012725: 1012724
 1012726: 1012725
 1012727: 1012726
 1012728: 1012727
 1012729: 1012728
 1012730: 1012729
 1012731: 1012730
 1012732: 1012731
 1012733: 1012732
 1012734: 1012733
 1012735: 1012734
 1012736: 1012735
 1012737: 1012736
 1012738: 1012737
 1012739: 1012738
 1012740: 1012739
 1012741: 1012740
 1012742: 1012741
 1012743: 1012742
 1012744: 1012743
 1012745: 1012744
 1012746: 1012745
 1012747: 1012746
 1012748: 1012747
 1012749: 1012748
 1012750: 1012749
 1012751: 1012750
 1012752: 1012751
 1012753: 1012752
 1012754: 1012753
 1012755: 1012754
 1012756: 1012755
 1012757: 1012756
 1012758: 1012757
 1012759: 1012758
 1012760: 1012759
 1012761: 1012760
 1012762: 1012761
 1012763: 1012762
 1012764: 1012763
 1012765: 1012764
 1012766: 1012765
 1012767: 1012766
 1012768: 1012767
 1012769: 1012768
 1012770: 1012769
 1012771: 1012770
 1012772: 1012771
 1012773: 1012772
 1012774: 1012773
 1012775: 1012774
 1012776: 1012775
 1012777: 1012776
 1012778: 1012777
 1012779: 1012778
 1012780: 1012779
 1012781: 1012780
 1012782: 1012781
 1012783: 1012782
 1012784: 1012783
 1012785: 1012784
 1012786: 1012785
 1012787: 1012786
 1012788: 1012787
 1012789: 1012788
 1012790: 1012789
 1012791: 1012790
 1012792: 1012791
 1012793: 1012792
 1012794: 1012793
 1012795: 1012794
 1012796: 1012795
 1012797: 1012796
 1012798: 1012797
 1012799: 1012798
 1012800: 1012799

1012801: 1012800
 1012802: 1012801
 1012803: 1012802
 1012804: 1012803
 1012805: 1012804
 1012806: 1012805
 1012807: 1012806
 1012808: 1012807
 1012809: 1012808
 1012810: 1012809
 1012811: 1012810
 1012812: 1012811
 1012813: 1012812
 1012814: 1012813
 1012815: 1012814
 1012816: 1012815
 1012817: 1012816
 1012818: 1012817
 1012819: 1012818
 1012820: 1012819
 1012821: 1012820
 1012822: 1012821
 1012823: 1012822
 1012824: 1012823
 1012825: 1012824
 1012826: 1012825
 1012827: 1012826
 1012828: 1012827
 1012829: 1012828
 1012830: 1012829
 1012831: 1012830
 1012832: 1012831
 1012833: 1012832
 1012834: 1012833
 1012835: 1012834
 1012836: 1012835
 1012837: 1012836
 1012838: 1012837
 1012839: 1012838
 1012840: 1012839
 1012841: 1012840
 1012842: 1012841
 1012843: 1012842
 1012844: 1012843
 1012845: 1012844
 1012846: 1012845
 1012847: 1012846
 1012848: 1012847
 1012849: 1012848
 1012850: 1012849
 1012851: 1012850
 1012852: 1012851
 1012853: 1012852
 1012854: 1012853
 1012855: 1012854
 1012856: 1012855
 1012857: 1012856
 1012858: 1012857
 1012859: 1012858
 1012860: 1012859
 1012861: 1012860
 1012862: 1012861
 1012863: 1012862
 1012864: 1012863
 1012865: 1012864
 1012866: 1012865
 1012867: 1012866
 1012868: 1012867
 1012869: 1012868
 1012870: 1012869
 1012871: 1012870
 1012872: 1012871
 1012873: 1012872
 1012874: 1012873
 1012875: 1012874
 1012876: 1012875
 1012877: 1012876
 1012878: 1012877
 1012879: 1012878
 1012880: 1012879
 1012881: 1012880
 1012882: 1012881
 1012883: 1012882
 1012884: 1012883
 1012885: 1012884
 1012886: 1012885
 1012887: 1012886
 1012888: 1012887
 1012889: 1012888
 1012890: 1012889
 1012891: 1012890
 1012892: 1012891
 1012893: 1012892
 1012894: 1012893
 1012895: 1012894
 1012896: 1012895
 1012897: 1012896
 1012898: 1012897
 1012899: 1012898
 1012900: 1012899

(continued from page 7)

coin", "Coin 1", and "Hotel". The TSO utilizes the condition of these lamps to identify the status of incoming calls. There are three lamps that are common to each of the three groups. These are:

- (SIN) "Non-coin" lamp lights when a non-coin caller requires TSPS assistance in placing an otherwise direct-dialable call (in some rural areas that have limited DDD features). "Coin 1" lamp lights on direct-dialable coin calls that are sent to TSPS for payment collection. "Hotel" lights on Hotel originated DDD calls. The TSPS also receives the room number the call is being originated from.
- (0+) Lights to signify that the incoming call was originated by a customer dialing a "0+ telephone number" for an operator assisted call in each of the three groups (coin, non-coin, hotel/motel). (Example: if a customer were to place a "person-to-person (operator assisted) call from a payphone, this would cause the "0+" lamp in the "coin" group to light, one placed from a residential phone would cause the "0+" lamp in the "non-coin" group to light, etc.)
- (0)- aka "Dial Zero". Lights to signify that the incoming call was originated by a customer simply dialing 0 (zero). In each of the three categories (non-coin, coin, hotel/motel).
- (PST PAY)—Post Pay, illuminated key. This shows up in the coin group only. It's depressed by the TSPS operator when a customer requests a "post pay" call from a payphone, allowing him to deposit the full charge at the completion of the call.
- (TIN)—Tone, lamp. This shows up in the coin group only. I believe this lamp lights to inform the TSO that a coin customer has flashed his/her switchhook during a call in progress, requesting operator assistance.
- (GSI)—Guest, illuminated key. This lights on all hotel-originated calls.

Below the above rows of keys and to the far left you will see a row of keys labeled "Dialing Trunk". TSPS utilizes this group of keys to select various outgoing trunk groups. The keys are used as follows:

- (DA)—Directory Assistance, illuminated key. Used by TSO to place calls to the directory assistance group.
- (RA)—Rate and Route, illuminated key. Used

to place calls to rate and route. The Universal Rate and Route position known to all you boxers is found at KP+900+141+1212+ST. (Editor's note: This has just been phished out. TSPS operators can now get this information without calling another operator.)

- (SWB)—Switchboard, illuminated key. I believe this key is used to reach a cord-board position, although I have no evidence of this.
- (OBT)—Outgoing Trunk, illuminated key. Depressed by the TSO to select an outgoing trunk to be used to place operator assisted calls, special purpose calls (such as inward), etc.

To the right of this row of keys you will find the group labeled "Ring". These keys are utilized by TSPS to activate special purpose ring features and line handling.

- (BAK)—Ring Back, illuminated key. Used by the TSO to ring the originating party's line while holding the forward line in the event that the originating party loses his connection.
- (FWD)—Ring Forward, illuminated key. Exactly the opposite of ring back.
- (CAL BAK)—Call Back, illuminated key. Used in special operator call back situations on person-to-person calls where the called party is not available but a message is left anyway. I really don't understand its full potential and most positions I have spoken with don't either.
- (TBC)—Time and Charges, illuminated key.
- (MY)—lamp. Used in Non-ACTS (Automatic Coin Toll Service) originated calls and lights to inform the TSPS to notify caller of expiration of initial minute period (in being number of minutes entered via the KP MY key at the origination of the call).
- (DNG DNG)—lamp. Lights to inform the TSO that more money is needed at the completion of a TSO assisted coin call. The usual procedure is to ring the coin station back and attempt to frighen the customer into making the proper deposit ("If you don't pay we'll bill the called party...").
- (Key Chg)—Key Calling, lamp. This lamp is used by TSPS to determine the status of an incoming "Operator Number Identification" (ONI) marked caller or an incoming caller that was routed to TSPS due to an "ANI (Automatic Number Identification) Failure" (ANIF). Both call conditions show up as a "0+" call (hotel, non-coin, coin—see above). If the calling party is

(continued on next page)

2600 June 1987 Page 15

marked as "ONI Required" the appropriate "0+" lamp will light, and the "Key Calling" lamp will be lit steady. If the incoming call was due to an ANIF, the "0+" lamp will be lit, and the "Key Calling" lamp will be lit and flashing.

Directly to the right of the "Ring" group of keys you will find the "Release" set of keys. These two illuminated keys allow the TSO to selectively release (disconnect from) either the calling, or called parties by pressing either the "Release Back" (BAK), or "Release Forward" (FWD) key respectively.

To the right of the release set, you will see a group of four keys with no particular "group designation". These again are various multi-purpose keys that do the following:

(SA) — Service (assistance) Required, illuminated key. Pressed by the TSO to forward the calling party to a supervisory console (i.e. rate customers demanding supervisor). It can also be used if the TSO is confused and needs assistance.

(MB) — Make Busy, illuminated key. Used to "busy out" the console lights when pressed. The console will not take any incoming calls until it is pressed again. (This is useful when gabbing, doing nails, or filling out time/trouble tickets.)

(MI) — Maintenance, lamp. This lamp illuminates to warn the TSO that her console has been placed into remote maintenance/testing mode. A flashing MIMC lamp indicates a faulty console.

(PT) — Position Transfer, illuminated key. A TSO depresses this key to transfer the call in progress from her console (position) to another console.

Below the "Outgoing Trunk" keygroup, you will see a lamp marked "CW" — Call Waiting. This lamp lights on every active console to inform the TSO that there are incoming calls waiting.

To the far right of the "CW" lamp, you will find the AMA group of keys, broken into two sub-groups, which are "Station" and "Person". A complete description of each key in this group would require more room than is available here. Basically these keys are used in conjunction with the "KP" and "AMA Timing" groups of keys (see below) for attaching the appropriate class of charge to the call being originated. The keys in the "Station" sub-class from left to right are "Pad" (PA), which is used to attach a "Station-

to-Station" or originating caller paid class of charge; "Collect" (CL) to attach "Station-to-Station" Collect Call; "Special Calling" (SP CB), and "Special Called" (SP CD) which are both used in "Special" Station-to-Station billing procedures, such as third party, or credit card calls. "Auto Collect" (AT CT), used in coin billing procedures and "Direct Distance Dialing" (DDD), attaches a DDD class of charge in cases where you have trouble dialing a number and require operator assistance in completing a call. Below this row of keys you will find the "Person" sub-group of AMA keys. Their uses are identical to those in the "Station-to-Station" group only they attach a "Person-to-Person" rate of charge. The "NOAMA" key is pressed to eliminate a charge for a person-to-person call where the called party is unavailable. Although all the keys in this group can take on different meanings under different conditions, the above definitions are suitable for the sake of this article. All keys in this group are illuminated keys.

Below the "CW" lamp you will find two keys under the heading "Coin 2". Their uses on "coin originated" (payphone) calls are: "Coin Collect" (COL) — which causes the payphone to collect coins and the "Coin Return" (RET), which causes it to return a coin. Both are illuminated keys.

To the right of the "Coin 2" group, you will find the "AMA Timing" group. These keys are used in conjunction with the "AMA" and "KP" groups for:

(CA TM6) — Cancel Timing, illuminated key. Cancels AMA timing charges and also allows the TSO to change the class of charge on a call.

(ST TM6) — Start Timing, illuminated key. Used to start AMA timing after the appropriate class of charge has been entered, and the calling party has reached the called party in person-to-person calls (or in station-to-station DDD calls, when the destination ring has been established).

(CA CAL) — Cancel Call, illuminated key. Used in conjunction with the Cancel Timing key to Cancel a call and mark a "non-completed" call on the AMA tapes (such as a person-to-person call where the called party is not available).

(REC MSG) — Record (AMA) Message, illuminated key. Used at the completion (meaning calling and called party are done

talking), to record the time of the call and the appropriate class of charge onto the AMA tapes and to release their forward connection.

To the right of the AMA timing group you will see three columns of four buttons under the heading of "Loop Control". These allow the TSO to access any of the three loops available to her for placing calls. The keys have identical meaning in each set. They are used in the following manner: (CLB) — Calling Party, lamp. Lights to signify person on said loop is a calling party.

(CLD) — Called Party, lamp. Lights to signify person on loop is a called party.

(HLD) — Hold, illuminated key. Places a loop into a hold state. The calling and called party can talk to each other, and AMA timing can be started. The call is held at the console.

(ACS) — Access, illuminated key. Used by the TSO to initially access a loop. Pressing this key selects an outgoing loop, and reads the console for placing a call onto it. It is also used to allow the TSO back into a loop or loops in a hold state.

To the right of the loop control group you will see the "Keypad Key" group. These keys are pressed by the TSO to initialize the keypad parser into the proper mode for entering information, which is completed/entered by pressing the ST key (to the right of keypad). Their uses are as follows:

(KP TB) — KP Trouble, illuminated key. Used to enter various TSO-encountered trouble codes such as noisy line, customer(s) were cut off, couldn't complete call, etc. I believe the format for entering a trouble code is as follows: "KP TBL + TC + NTE + CN + ST" where KP TBL is the KP Trouble Key, TC is the 2 Digit trouble code, NTE is the number of times trouble was encountered (1 Digit), CN is the caller's phone number, and ST is the start key. A record of the trouble is made on the AMA tapes and the calling party is usually given credit.

(KP RT) — KP Rate, illuminated key. Used to enter and display rate (charge) information. Can also be used to display rate information at a customer request.

(KP HD) — KP Hotel, illuminated key. Used for manually entering a verbally requested room number on hotel/motel originated calls.

(KP NY) — KP Notify, illuminated key. Used for

entering time in minutes on a non-ACT5 originated Coin call. When entered time duration is up, it causes the NY lamp (see above) to flash.

(KP SP) — KP Special, illuminated key. Used for entering special numbers such as credit card IDs and third party billing numbers. It causes TSPS software to automatically query the BWA (Billing Validation) database to check the validity of the number or credit card and will flash if billing to an illegal card or number is attempted.

(KP BK) — KP Back, illuminated key. Used in entering the calling number in ANI failures (ANIF), and ONI (Operator Number Identification) required situations.

(KP FD) — KP Forward, illuminated key. This is the most commonly used KP key. It's used to enter the called party's number on all TSO-assisted calls. Pressing the ST (Start) key causes the entered number to be applied onto the accessed burks in MF tones.

(ST) — Start, illuminated key (found to the right of the keypad). Used in completing all KP+number sequences listed above.

Below the "Coin 2" set of keys you will see the (POS RLS) — Position Release Key. This key is used by the TSO to release her position from the call. She would hit POS RLS after completing a call, and also to release a person calling to ask her questions and not actually requesting that a call be placed (name/place requests, etc.)

Below the Position Release key you will see a set of 5 keys labeled "Display Control". These keys are used to make the console display show assorted information. Their use is as follows: (HM) — Time, unlighted key. Displays time of day in military format.

(chg min) — Change per Minute, unlighted key. Displays the charge per minute on a call in progress.

(CLG NUM) — Calling Number, illuminated key. Displays the number of the calling party.

(CLD NUM) — Called Number, illuminated key. Displays the number of the called party.

(SPL NUM) — Special Number, illuminated key. Displays various special numbers such as Calling Card numbers and third party billed numbers. Use

(continued on page 20)

Protection Equipment," and cost around \$10 or \$20.

Many firms and individuals who contract with Uncle to put together these reports later re-package the information so they can sell it on their own. This is especially true of companies within 75 miles or so of Washington, DC.

Uncle is a wonderful source of information. Many agencies and departments of the government will happily send to anyone who asks for a list of publications which they have published. The complete catalog is the GPO Monthly Catalog, put out by the Government Printing office. This catalog is also available as a database on several of the leading database services. You can do a search in a minute or two that will save you tons of time, and it's one of the most reasonably-priced databases around—only \$35 per hour.

The Librarian

Dear 2600:

There seems to be a passing fancy with Autovon in your "letters" column. The rumours and disinformation that you have printed in the past have been amusing, but maybe it's time for a few straight facts.

The AUTOMATED VOICE Network was conceived by DoD in the early sixties to eliminate the high cost of the redundant networks that each of the armed services was operating. In addition to providing a uniform dialing plan for DoD installations worldwide, Autovon allows off-net calls to other ("commercial") phone numbers. By calling the local Autovon switchboard, you can also place an off-net to off-net call, but you will need a special 8 character authorization code (these change quarterly).

From an Autovon-capable line you

may place "Routine" precedence calls. But since all the Washington desk-bound paper pushers clog the network with their endless jabbering, a "Routine" call frequently gets blocked.

A very select few Autovon lines ("4-wire") or the Autovon operator can select a higher precedence by pressing one of the keys in the fourth column of the touch-tone pad. This is done by dialing the precedence before the number: D for "Priority", C for "Immediate", B for "Flash" and A for "Flash Override". Autovon operators don't object to giving you a "Priority" or "Immediate" trunk, but asking for anything higher will require special keywords and brass balls. If you dial one of these precedence keys on a normal ("Routine") Autovon line you'll get a recorded announcement from the Autovon switch telling you that the precedence you selected is not available on the line you're using. When you call another Autovon switchboard using "Priority" or higher precedence you hear a "Priority ring," which is a 3 to 4 second ring followed by a one second pause. This usually succeeds in getting Emma's attention at the distant switchboard.

The Autovon-10 commercial translations you've printed in the past would be more interesting if you added the FTS translation, too. A collaboration among your readers might result in a compendium that would be a handy desk reference for military and federal employees.

Rusty Diode

It's always time for this kind of information in these pages. Let's hear some Autovon stories—experiences and problems people have had with the system!

Visions of Doom

Dear 2600:

I live in Pasadena, a few miles from

(continued on page 22)

2600 marketplace

BEST HACKER AND PHREAKER written public domain software for the Apple II family. Two double sided diskettes full of communication and deprotection utilities. These programs were combed from the best 885 and clubs nationwide. Send \$10 cash, check or MO to Mark B., 1486 Murphy Rd., Wilmington, OH 45177-9338.

WANTED: Technical data for pay phones, dot matrix printers, and/or modems. Looking for schematics and theory of operation. Call (205) 293-6333/6395, 7 to 4 CST. Ask for Airman Parochellis. Cannot accept collect calls.

TAP BACK ISSUES—complete collection, vol. 1-84 plus supplemental reports and schematics. Approx. 400 pages of quality copies sent via UPS or US Mail. \$100 includes delivery. Send cash, check or MO (payable to P.E.J.). Cash sent same day, others allow 4 weeks. to Pete G., Post Office Box 463, Mt. Laurel, NJ 08054.

DOCUMENTATION on electronic & digital PBX's and switching systems. Willing to trade/purchase. Also looking for Bell System Practices and other such paraphernalia. Write to Bill, c/o 2600, PO Box 7528, Middle Island, NY 11953.

32K MODEL 100, U1-Rom II, drive, TS-DOS, spreadsheet, modem cables, AC adaptors, briefcase included, good condition, \$1200. New, make an offer. Tandy 2000 version of WordPerfect 4.0 \$150 or trade for 1200 or 2400 baud external modem, IBM PC & XT & AT version of WordPerfect 4.1 and MathPlan 2.1. \$250 or trade for 1200 or 2400 baud external modem. Call (803) 244 6429 or (803) 733 5753. Ask for Paul.

WANTED: Looking for a good used 5 or 10 megabyte hard drive for the Apple II series of computers. If you are selling one or know of anyone that is then send replies to: Brian F., 10031W, Main, Apt. 3, Ottawa, IL 61350, TAIWAN! All Taiwan computers and accessories available for direct shipment for cost plus shipping plus 3% (quantities of 50 or more). Giles, PO Box 12556, El Paso, TX 79913

2400 BAUD MODEMS. Internal, for PC's and clones. \$200. 516-751-2600, Randy.

I NEED INFO on a power supply made for Western Electric by ACME Electric Corp in 1971. It is designated: Rectifier Semiconductor Type—J87233A-2 LI Input is 208/240v, output 48v/30a using SCR's as control elements. Any info would be appreciated. A schematic would be wonderful. I'll be glad to reimburse copying costs. J. Klein, 12330 Takima Rd., Cave Junction, OR 97523.

FOR SALE: Texas Instrument "Ataris printer" (Silent 700 series) intelligent data terminal. Many uses. Reasonable. Contact Ted K., PO Box 533, Auburn, NY 13021-0533.

SCHEMATICS—BUY, SELL, TRADE. We are interested in enlarging our collection of circuit diagrams for interesting electronic devices. Send list of what you want/have and a SASE to: J.R. "Bob" Dobbs, PO Box 444, Shawnee Mission, KS 66202.

PRIVATE INVESTIGATOR Ben Harroll would like to hear from other P.I.'s and/or ANY other "specks" i.e. N.S.A., C.I.A., F.B.I., etc. for purposes of exchanges in ideas, techniques, sources, and equipment. (619) 239-6991, 425 "F" St., San Diego, CA 92101.

TAP BACK ISSUES. Reprints of complete collection. Quality copies. Delivery included. Send cash, cheque, or MO (Payable to FPS), \$60. John L., P.O. Box 722, Station A, Downsview, Ontario M3M 3A9.

2600 MEETINGS. Fridays at 5 pm at the Citicorp Center in the Atrium—153 East 53rd Street, New York City. Come by, drop off articles, ask questions. We'll be in Philadelphia on July 31. Check July issue for exact location or call 516-751-2600 after July 1.

GOT SOMETHING TO SELL? Looking for something to buy? Or trade? This is the place! The 2600 Marketplace is free to subscribers! Just send us whatever you want to say (without making it too long) and we'll print it! Only please please, no businesses!

Deadline for July issue: 7/5/87.

Letters

(Continued from page 18)

L.A., and have been having trouble with the local 818-350-1028 Metrophone port. They have just upgraded to better software making it almost impossible to hack the system. I have heard that U.S. Sprint has bought the company and they're going through serious changes that may affect us all. Rumours are that prefixes will be added to the codes and maybe more than that. I also have found some weird codes that give carriers, call unknown homes/businesses and the Metro operator. If you or anyone could explain what is happening or list some local ports I would be very thankful.

Hex Converter

First of all, GTE Sprint bought U.S. Tel and thus changed their name to U.S. Sprint. As far as we know, they're not interested in acquiring Western Union's Metrophone service. Second, every independent carrier has gone through a phase of making their authorization codes a little harder to guess. Metrophone is simply one of the last to finally get around to it. It doesn't mean the end of the world by any stretch of the imagination. And finally, almost all long distance companies have "weird" codes that hook you up to special numbers. In most cases, it's either an internal office at the company itself or a special "toll free" service provided to the people whose phone you wind up ringing. Simply ask customer service what kind of "toll free" service they provide to understand it better.

Words of Praise

Dear 2600:

I received the March issue of 2600 and was delighted by the poem about Captain Crunch. In fact, I would like to see a "bio" piece done on him, similar to the one done recently on TAP.

Let me also say that I support a magazine like 2600 because it allows

people to decide for themselves how they will interact with the world's expanding electronic networks. I work for a large cable company, and can say that the whole issue of scrambling is repugnant. The networks earn plenty of money from subscribers' fees and the reason scrambling was initiated was purely money-oriented—it had nothing to do with the Captain Midnight affair. Our system uses Videocipher II hardware, which I have heard has been breached in the Caribbean and illegal decoders are currently being manufactured there. Our management knows this, and despite this it is buying more descramblers to complete its set-up, since all the major services will be scrambled by the end of next year (at least in theory). It should surprise no one, then, if these devices begin to be distributed in the United States—all that is needed is a clever legal euphemism (just as infinity transmitters quickly became "Electronic Babysitters" when the surveillance laws became stricter). I am not in a highly technical position, but should any interesting data appear I will send it in.

BBD

WRITE FOR 2600!

SEND ARTICLES

TO:

2600

PO BOX 99

MIDDLE ISLAND,

NY 11953-0099

ATTENTION

Does your address label say "Time to Renew"? Don't miss an issue. Renew your subscription today and enjoy peace of mind.

\$15	1 year subscription or renewal
\$28	2 year subscription or renewal
\$41	3 year subscription or renewal
\$40	1 year corporate subscription or renewal
\$75	2 year corporate subscription or renewal
\$110	3 year corporate subscription or renewal
\$25	overseas subscription or renewal (1 year only)
\$55	overseas corporate subscription or renewal (1 year only)
\$260	lifetime subscription

BACK ISSUES are available. Prices are:

\$25	1984, 1985, or 1986 issues (12 per year)
\$50	Any two years
\$75	All three years (36 issues)

(Overseas orders add \$5 for each year ordered)
Allow 4 to 6 weeks for delivery.

Send all orders to:

2600

PO Box 752

Middle Island, NY 11953 U.S.A.

(516) 751-2600