==Phrack Inc.==

Volume One, Issue Six, Phile 1 of 13

Introduction

Welcome to Phrack Inc. VI! We have been somewhat delayed in our release due to problems with my home life (see PWN in this issue for details) but here we go! Right now, Metal Shop Private is down, but when I return to real life, it should re-emerge with a new BBS program and hopefully will be better than ever. Now, with the release of Telecomputist Newsletter, we have the capabilities to have Phrack Inc. printed out.

If you feel you'd like to subscribe to something like this, it would be operated in this manner: being one of our positive points, it will be free to an extent. You, the subscriber, will be paying for postage and if necessary, envelopes as well as P.O. Box rental, but none of this should amount to much. If you are interested in getting this, please contact any member of the Metal Shop Family or Phantom Phreaker of The Alliance with your opinions on this. If we get enough support, we'll get this rolling. Later on.

TARAN KING
Sysop of Metal Shop Private

This issue of Phrack Inc. includes the following philes:

Title by Author (amount in K)

1 Index by Taran King (1k)
2 Pro-Phile on Groups by Knight Lightning (14k)
3 The Technical Revolution by Dr. Crash (4k)
4 Fun with Lighters by The Leftist (2k)
5 Nasty Unix Tricks by Shooting Shark (4k)
6 Smoke Bombs by Alpine Kracker (2k)
7 Cellular Telephones by High Evolutionary (5k)
8 Wide Area Networks by Jester Sluggo (10k)
9-13 Phrack World News by Knight Lightning (16,15,15,16,15K)

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Reported by Jim Byers/Los Angeles and Jerome Cramer/Washington.

Typed for PWN's usage by The Seker

News On Captain Midnight April 28, 1986

"Search for Cable TV Prankster Leads to North Texas"

The search for Captain Midnight, the disgruntled video prankster who briefly commandeered Home Box Office's satellite transmissions over the eastern two-thirds of the country early Sunday, has led federal investigators to North Texas, a Justice Department official said Monday.

John K. Russell, a Justice Department spokesman in Washington, told Knight-Ridder Newspapers that "the perpetrator is believed to be in North Texas." Later he said the search was in Texas "as well as other areas."

Other authorities told Knight-Ridder that investigators in the Dallas field offices of the FBI and the Federal Communications Commission (FCC) have been focusing on a tip that Sunday's four-minute cable interruption originated in North Texas.

FBI and FCC officials in Dallas could not be reached for comment Monday.

Captain Midnight interrupted a movie broadcast Sunday with a message protesting new fees being charged the owners of satellite dishes for access to HBO. The five line message, superimposed on a test pattern, said:

"Good evening HBO from Captain Midnight.
$12.95 a month? No way!
(Showtime-Movie Channel Beware.)"

In January, HBO began scrambling its broadcasts to prevent owners of satellite dishes from unauthorized interception of the signal as it bounced from a satellite to cable television systems.

HBO told dish owners that they would have to buy a descrambler for $395 and pay $12.95 a month.

"While the man on the street may have once thought that Captain Midnight's message was limited to being a prank, it does represent a very serious threat to any company or entity using satellites to transmit information," said Alan Levi, HBO's manager of corporate public relations.

Other:

Alan Levi:	[212] 512-1659	(Cooperate affairs)
David Pritchard:	[212] 512-1413	(Cooperate affairs)
Tim Larker:	[212] 512-5666	(Network scrambler assistant)
New York City FCC:	[212] 620-3438	(Federal Communications Commission)
HBO Cooperate Offices:	[212] 512-1000	

David Lightman:

I have spoken with several people about 'Captain Midnight'. I have spoken to everyone above. This David Pritchard tried to tell me this:

DP = David Pritchard
DL = David Lightman

DL: Where do you think this 'Captain Midnight' is?

DP: Would assume he is in the North Texas region. Possibly 214.

DL: What makes you think this?

DP: We believe this is true due to a tip from a Dallas resident.

DL: How do you know that he was not lying to lead you away from the real

Captain Midnight?

DP: I know he was probably not lying because he left us his mailbox number.

DL: Which is?

DP: I cannot release that information right now.

(This conversation went on for a while. Possibly 10-15 minutes...)

David Lightman earlier had spoken with Alan Levi...

DL: Yes. Do you have any idea who this Captain Midnight might be?

Alan: No, but we are fairly certain it is someone in the 212 area with access to the scrambling offices of HBO. The knowledge necessary for what this guy did could not be gotten very easily without getting it from our departments.

DL: Well, I believe I know who this Captain Midnight is.

Alan: Could you please tell me who you think Captain Midnight is?

DL: No. If it is the person I suspect, I would rather not cause any trouble for them.

Alan: You wouldn't cause much trouble for him.

DL: Isn't what this guy did a federal offense?

Alan: Well, yes it is, but you would be surprised how many people get away with breaking federal laws.

(He actually said that guys!)

DL: Hmm.... What would happen to him?

Alan: We would just let him know that what he did was not a prank. It was very serious. It could possibly change the entire industry and unless he stops transmitting over our satellites, we will ask the Department of Defense to handle it from then on.

DL: Well, I would need to think about it a little more. Can I call you back a little later?

Alan: Could you just give me your number and I will have David Pritchard call you back?

DL: It depends on who else will get my number.

Alan: Just me. I will consider this conversation and all of the conversations that follow to be an anonymous tip.

DL: Sure then. It is (214) 733-5162.

Alan: Thanks. Then I will have David call you if you do not call me back before tomorrow evening.

DL: That would be fine. Thanks.

Alan: Thank you.

----------End of Conversation----------

Well as you may have guessed, my number (mailbox) was given to the FCC, FBI, and David Pritchard as well as Tim Larker. I got pretty pissed so I called David Pritchard. That was the first conversation I posted. We (Alan Levi, David Pritchard, Tim Larker, the FCC, the FBI, Knight-Ridder Newspapers, and I) now have the country believing that the transmission originated in Dallas. Of course it did, but you may see that changed soon. I plan on another conversation with these intelligent people tomorrow 5:00 PM.

If you do call these guys, please do not mention the Administration, Team Hackers'86, any member of either group or me to them as being the transmitter. You have no proof at all about that. I did not say if we were involved or not. That will be left up to your imagination.

Information and Interviews Provided by David Lightman

Captain Midnight Busted! June 6, 1986

Captain Midnight probably isn't sleeping too well these days. His name, still publicly unannounced, is probably known by many, including the FBI. He has already been reported to have been fired from his job at an uplink facility, of which there are only around 100 in this country. The facility is east of the Rockies and does not operate after midnight. Also, a newer type of equipment was used of which there are only a few in the country. We expect charges to be filed any day now, possibly just in time for the June 12th congressional hearings on signal jamming. Penalties could include a one year jail sentence and up to $50,000 in fines; $10,000 maximum of which would be for jamming only.

We expect FM America to come to Captain Midnight's rescue financially by raising defense money. All segments of the TVRO industry condemned the signal jamming. It is interesting to note the grins and smiles while discussing the subject, however, FM America knows who "Captain Midnight" is and even interviewed him live on the air on "FM America." Tapes of FM America including Captain Midnight's interview have been turned over to federal investigators.

Several benefits can be realized by Captain Midnight's signal "interruption." Mainly, the fact is now known by everyone that it can be done. There are no secrets either in that a transponder can easily be confused into locking onto another signal and ignoring the correct signal as interference. Also, the signal that controls the satellite's positioning could also be accessed. The overall possibility that our entire "satellite system" in general can be rendered ineffective from the ground is kind of unnerving.

Signal scrambling did not interfere with the HBO signal lockout because a higher wattage beam over-powered it. The networks all use pretty powerful beams which are used 24 hours-a-day so they would be harder to jam. If we had to guess which uplink was used to jam HBO, we would pick one that was already locked into the same satellite, such as one of the superstations. (Hint, Hint!)

Information provided by Handsomest One

Who is Ralph Meola? May 20, 1986

Ralph Meola is the Head of AT&T Security in New Jersey and theoretically everywhere else as well. He is known to have a computer file on hackers and phreaks, and an investigative team, that rivals John Maxfield's "BoardScan".

How did Meola enter into the public eye? Well, we at Phrack really aren't completely sure but, the general idea is that a friend of Sigmund Fraud (See TelePub'86 in PWN issue III), using social engineering in order to gain information from AT&T, somehow came into contact with Ralph Meola.

Later, Sigmund Fraud was also brought into this and decided to give Ralph Meola a call himself. With Gin Fizz on Sigmund's 3-Way, he got Meola on the phone and said,"Hey! This is Sigmund Fraud!" Typing sounds could be heard in the background and in a few seconds Meola responded with Sigmund Fraud's real name, address, phone numbers, and the names of several BBSes that he was on.

Meola then insisted that Sigmund Fraud give him his account on Stronghold East or at the very least, all of the newuser logon procedures and passwords. Failure to do so would mean big trouble for Sigmund Fraud. Sigmund of course gave Meola the always nice "fuck you!" and hung up on Meola.

Although Sigmund Fraud was (at the time) on Metal Shop Private, Meola didn't know it, or at least he didn't mention it as a BBS that Sigmund was on. This means that Meola has no agents on Metal Shop Private. It is also known that Meola has no agents on Stronghold East. Otherwise he wouldn't have needed the

password information from Sigmund. It is believed that Meola was on Stronghold East before the MASSIVE purge several months ago.

Information Provided by Sigmund Fraud/Gin Fizz/Slave Driver
The assumptions and theories are my own -KL

Slave Driver has since sent Ralph Meola the following letter:

TO: Ralph Meeola
Head AT&T Security

From: Slave Driver

Re: My user.

Hello. I find it rather hard to get in touch with you through normal means, but give me some time.

I was told you have been threatening my users, trying to get access here. That is not good. Ralph, if you want access just ask for it, don't go threatening my users. That was not an intelligent idea, Ralph.

If you are such a big guy [in your mind, and uh, hand] why not give me a call. I'm sure you have my number. I would be very interested in talking to you. So, you decide, Ralph. Either way, we'll talk one day.

Bye Ralph,

Slave Driver

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Bowens says CFCA is intensifying efforts to stop the spread of fraud. Among other things, CFCA is developing educational packages for carriers and the public to promote widespread understanding of telephone fraud and ways to counter the crime.

"Our aim is jointly to prevent, detect, investigate and prosecute any fraudulent use of our long-distance networks," Bowens said.

Authorization codes are obtained by theft from individuals and by "hackers" who randomly try combinations of numbers by telephone or through computer scanning of number combinations until a working code is "hit." Illegally obtained codes are fraudulently used by "boiler room" telemarketing operations, for example, or are passed along for use by individuals.

MCI had developed software to detect illegal entry into its network and it is expected that the spread of dial 1 service, in which authorization codes are not used, will help reduce the incidence of telephone fraud.

Comments from the Bootleg:

You reckon they mean us??????????????

What's wrong with them, can't they take a joke???????????

The Many Faces Of Fraud

The following is an article from the January issue of MCI World, a monthly newsletter published by MCI for it's employees.

This new year will see a stepped up MCI attack on telephone fraud--illegal use of the long distance network through access by stolen authorization codes or electronic devices. The offensive is led by Everick Bowens, senior manager of MCI's security investigations department and president of the industry-wide Communications Fraud Control Association (CFCA). Success in curbing this theft of service has earned MCI security investigators a reputation as super sleuths at headquarters and in the divisions.

New teeth were added to the attack on telephone fraud when the U.S. Secret Service was assigned to augment continuing investigative efforts by the FBI and other law enforcement agencies.

Because telephone fraud is outright theft from the company, MCI is determined to prevent, detect, investigate and prosecute any illicit use of its network. To learn more about how MCI conducts its anti-fraud campaign, MCI World talked with Bowens.

MCI World: Is it true that MCI has systems that can detect fraudulent activity while it is occurring?

Bowens: Yes, our fraud systems detect abnormal usage and hacking. The systems also help us to track down offenders even when we have only the authorization code he or she is abusing. Because we can profile abusers and trace phone calls, it is easier for us to prepare cases for prosecution.

MCI World: Abuses involving computer "hacking" to get authorization codes seem to attract public attention. But there are other types of fraud equally damaging to the telecommunications industry. Would you identify some of these?

Bowens: The primary form of abuse is by "hackers," who use computer programs to derive customers' authorization codes. These codes can be widely disseminated via electronic bulletin boards. Because many of these boards are public, the codes fall into the hands of anyone with access to the boards. We also encounter electronic toll fraud, which involves tone-generating devices that allow offenders to place fraudulent calls.

MCI World: Is one type of fraudulent activity more prevalent than another?

Bowens: Nationwide, fraud most frequently originates from military posts, college campuses, and prisons--places where there are numbers of people far from home, or who have little else to do but manipulate the telephone. This type of abuse prompts the bulk of our investigations.

MCI World: Who is most likely to commit fraud? Is there a general profile of the common offender?

Bowens: Computer crime typically occurs in affluent, metropolitan suburbs and involves juveniles. Electronic fraud also occurs in major metropolitan areas. Other abusers, such as high-pressure tele-marketeers, usually follow the coast lines. California and Florida, for "boiler room" operations in which phone service is used illegally to sell merchandise. However, fraud can't be totally attributed to any specific group at any particular time.

MCI World: How can you keep up with code abuse and fraud? Don't offenders change frequently?

Bowens: Interestingly enough, the patterns don't change much. Those who commit fraud form a finite community that doesn't expand a great a great deal over time. Casual offenders, individuals who may take advantage of a "hot" toll free number, will use the number only when it's hot. Once the number no longer works, they're not likely to repeat the offense. On the other hand, repeat offenders are dedicated to getting something for nothing. They're somewhat easier to identify because they commit the same offense over and over.

MCI World: How does MCI know when it is the target of fraudulent activity?

Bowens: Our systems generally alert us, or an employee or a customer informs us. People know the MCI name. When they recognize something happening illegally with an authorization code, they'll get in touch with us. People generally feel that a cheat is a cheat, a crook is a crook, and if they have to pay full value for a phone call they see no reason why someone else shouldn't. There also are professional tipsters who go from one company to another offering information for a price. However, we rarely deal with them.

MCI World: Which MCI people, by the nature of their jobs, are most likely to detect or at least suspect, fraudulent activity?

Bowens: Our switch technicians have been very instrumental in detecting abuse. They're in a position to identify extensive busy signals on circuits, abnormal calling patterns, and code use. They've identified many hackers just by reviewing their daily call statistics. Employees in our billing department are also good at spotting unusually large bills and abnormal patterns. Though most fraud is detected by the systems we have in place, the human eye continues to be extremely helpful.

MCI World: In addition to working with internal people to help detect fraudulent activity, you also rely on the expertise of external agencies. Which outside agencies assist you with investigations.

Bowens: When fraudulent activity involves the theft or illicit use of authorization codes or credit calling cards, MCI and the Secret Service work together to investigate the case. If other activity is involved, such as the use of our service in furtherance of other crime, MCI works with the FBI. When the U.S. Postal Service is manipulated in a fraud case, MCI and postal inspectors investigate together. Additionally, Bell Operating Companies (BOCs) often provide hard evidence in cases that MCI prosecutes.

MCI World: When you are alerted to suspected fraudulent activity, what steps do you take to open and pursue the case?

Bowens: Security investigators contact the customer whose code is being abused, advise them of MCI's suspicions, and attempt to confirm them. If the response confirms their suspicion of fraud, they open the case.

Normally, an investigation entails much research into toll records to identify abusers, unusual call patterns and the parties who might be involved in illicit activity. We also interview parties receiving the calls and document their statements. Once we collect sufficient evidence, we decide whether a case should be pursued as a criminal or civil action.

MCI World: How long does it normally take MCI's investigators to "crack" a case?

Bowens: Typically, investigators can crack a case within hours. Identifying fraud suspects is the easy part. Amassing the evidence--dotting all of the legal i's and crossing the t's--is tougher. Gathering evidence may take weeks and large cases involving many parties can take months to solve.

MCI World: With fraudulent activity knowing no geographical restrictions, how do you segment the problem divisionally?

Bowens: The security investigations department acts primarily in an advisory capacity, helping investigators in the divisions with procedural matters. The divisions generally take responsibility for investigating fraudulent activity within their jurisdictions and corporate investigators pursue cases that are large in scope or require specific expertise. Corporate also takes on cases involving offenders operating in more than one division.

MCI World: Can you elaborate on MCI's goals for reducing the level of fraudulent activity?

Bowens: We want to reduce fraud to the lowest possible level. One of MCI's goals is to cut fraud by more than half in 1986. We want to be the industry leader in curbing this illegal activity.

Broadway Hacker Turned Fed Informant? June 2, 1986

Broadway Hacker recently called Phreakers Quest and left feedback to the sysop of that system (Shawn) saying, "I do believe that some of this information here is illegal." Shawn called Dark Creeper and reported this to him who then later told it to me.

Sometime later, Broadway Hacker called Knight Bandit to voice validate him for The Radio Station. He claimed he was some sort of fed and that KB would be hearing from someone in Bell Security.

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The Radio Station is down because Broadway Hacker has sold his computer, his disks, and everything else and is moving to his new job at an unknown destination. When I spoke with him, he went on that he sold his user log, but would not comment on that any further. He wanted me to print that he was a fed and that all of his former users would soon be receiving visits from the FBI. This is exactly what he told Phantom Phreaker and several others which started a mass riot in the phreak world. One result was the takedown of Alliance for fear of its safety. It since has been put back up.

Broadway justified his actions by saying that by telling rodents he was a fed, it would keep them off his board. Later he said that since he is leaving the phreak world and no one knows where he is going, "To hell with the phreak world, let it fall apart and die for all I care." So this fed scare is an attempt to do just that. Was it a joke? Did he mean that really? I don't know. Maybe he did mean it then but now has changed his mind...

No one should be worried about this, everything is ok, and Broadway is not working with the FBI. He now claims that he needed his line free for business calls and all of the above were attempts to get people not to be calling him as he didn't have the time or patience. Use your own judgement.

Broadway Hacker still has his Vic 20 and an old modem and is attempting to get back on boards. He has also stated that the Radio Station BBS will be put back up at the end of the summer. Where it will be run from is unknown although,

Broadway speculated that when it returns it would be run off of an Amiga.

Information Provided by
Broadway Hacker/Dark Creeper/Knight Bandit/Phantom Phreaker

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Information Provided by Blue Buccaneer

The following is a critical breakdown of the above article.

Blue Buccaneer:

Concerning this law: I always thought it would be more fun to hack for cash, but hey... Anyway, the three new offenses are what I am not to fond of:

1) "forbids unauthorized access to a computer" (Gosh, really?) "and drops a requirement that the government prove information in a computer was used or altered" Now what kinda law is that?! The government can just arrest someone and not have to prove anything? COME ON!

2) "It outlaws 'pirate BBSes'" When will these people learn the correct terminology? Pirates trade warezzzz, not 'secret passwords and codes'. The point is, that because this is a federal law, it will apply to all states. We aren't talking pussy-laws anymore. Wouldn't it be damn awful if just running the stupid BBS was a crime? Besides that, I thought we had a right to freedom of the press. Again, COME ON!

3) "and a $250,000 fine to maliciously cause damage in excess of $1000 to a computer program or data base". Excuse me for asking, but can one "maliciously" destroy data? And isn't a quarter of a million dollars a bit much for a teen-ager on a regular allowance? And that much for $1000 damage? Shit, I wish my insurance company paid like that when I wreck my car. Once again, COME ON!

And then, I guess this is the journalist's fault, but what the hell does that paragraph on Trojan Horses have to do with this shit? I mean really! Do you think Joe Blow in the street is going to go: "Whew, for a minute there I was afraid that new bill might just skip over those Trojan Horse things." I'd kinda assume Trojan Horses were covered under the "maliciously" destroying data rule.

Above written by Blue Buccaneer

Computer Kids, Or Criminals?

Mr. Slippery, age 12, never thought playing on his home computer amounted to much more than harmless fun -- until a mysterious call from a stranger one day proved otherwise. "I got a funny phone call from someone offering me money to destroy a bank's records," said Slippery, identified by his hacker alias. "At that point in time, I realized that that's an incredible way to launder money. That if I was real smart, I would move out of the whole thing, because that was an obvious point at organized crime, to me."

Hacking, or using a personal computer to trespass by phone lines into the private computer systems of corporations, foundations, universities and banks, is a new form of organized crime, say experts. In the last year or two, a new, sophisticated breed of hacker has emerged. Their ages vary, from the early hackers who started at 14, and have now entered college, to adults who operate computerized crime networks, but their motives are similar: criminal.

When Mr. Slippery started hacking seven years ago he as an exception among pimply faced, curious kids whose computers were toys for cheap, and typically harmless, thrills. For four years, he lived up to his alias, eventually penetrating top security government computers at the Department of Defense (DOD) and the National Security Agency (NSA). Mr. Slippery remained undetected until his last several weeks as a hacker. He was never caught, never convicted. Toward the end, he realized government security agents were following him and decided to put away his phone modem for good.

"After about four years of this, though, I started realizing that an entirely new crowd had sprung up," observes Mr. Slippery, now a 19-year-old ex-hacker. "You now have the 14 year olds who were running around destroying things seeing how much trouble they could cause." Computer crime experts say the hacker problem is getting worse, even though industries are increasingly reluctant to discuss the topic. "The malicious hacker problem is continuing to increase drastically and is getting far more serious," said Donn B. Parker, author of

Fighting Computer Crime and a computer and data security consultant at SRI International, a California-based, non-profit research institute.

"The lowering costs of equipment, the attraction of it for new kids coming into it as a rite of passage, points to increasing vulnerability of American business to the hacker problem." Parker's expertise got him hired as a technical consultant to the movie War Games about two teen-age hackers who penetrate government defense computers. Where there is evidence of serious computer hacker crime is on electronic bulletin board systems (BBSes), where hackers share gathered intelligence. "Phone companies have huge investments in their equipment that is highly vulnerable to the hackers, who have figured out how to beat them, and have used pirate boards for their intelligence purposes," said SRI International's Parker.

"A large proportion of these kids are, in fact, juvenile delinquents with other arrest records." Recently, a hacker posted this on a local BBS:

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I live in Cleveland and the Pheds are fucking everywhere. This guy who goes by the alias Lou Zer got caught and they told him if he narced on like 5 people he would get off with probation so he did that. Now like half the 2300 club has been busted and this kid has a lot of problems in the future. Also I have seen cops that I know of dressed as fucking federal express guys. Try and avoid using them. Also, here's some PBXs to fuck with. They belong to Standard Oil.

--Later, Sir Gallahad

- -

Other BBSs post lists of telephone numbers of Fortune 1000 corporations, banks, credit bureaus, universities, and foundations.

Admittedly, many of the numbers are invalid, say experts. Though there are BBSes that admit members only by invitation and operate as part of a computer underground, others can be accessed by anyone with a computer and a phone modem. Often the boards carry foreboding names like The Sanctuary, Future World, Dark Side, Deathtrap and Speed Demon Elite. Computer crime is sometimes called the perfect crime. Its perpetrators are anonymous hackers using aliases like Phantom Phreaker, Big Brother, Bootleg, Sigmund Fraud, and Scan Man.

John Maxfield is a computer security consultant who lives in a downriver suburb. Maxfield spends most of his working hours scanning BBSs, and is known by computer crime experts as a hacker tracker. His investigative work scanning boards has resulted in more prosecutions of computer hackers than anyone else in the field, say sources familiar with his work. Maxfield, who accepts death threats and other scare tactics as part of the job, says the trick is knowing the enemy. Next to his monstrous, homemade computer system, Maxfield boasts the only file on computer hackers that exists. It contains several thousand aliases used by hackers, many followed by their real names and home phone numbers. All of it is the result of four years of steady hacker-tracking, says Maxfield. "I've achieved what most hackers would dearly love to achieve," said Maxfield. "Hacking the hacker is the ultimate hack."

Maxfield estimates there are currently 50,000 hackers operating in the computer underground and close to 1,000 underground bulletin boards. Of these, he estimates about 200 bulletin boards are "nasty," posting credit card numbers, phone numbers of Fortune 500 corporations, regional phone companies, banks, and even authored tutorials on how to make bombs and explosives. One growing camp of serious hackers is college students, who typically started hacking at 14 and are now into drug trafficking, mainly LSD and cocaine, said Maxfield. This is an example of a recent BBS posting:

- -

WANTED: LSD, of any kind. Leave me mail if you're willing to talk prices, I'll take anything up to $5 a hit. $3 is more likely.

--urlord

- -

The BBSs are versatile teaching tools, too. Hackers post detailed tutorials on:

HACKING: Using a personal computer and modem to trespass into the private computer systems of corporations, foundations, universities, and banks.

CARDING: Using valid credit card numbers obtained from discarded carbons, accounts posted at video rental stores, or even by hacking credit bureau computers.

TRASHING: Sifting through trash to find discarded credit card carbons, receipts, computer passwords, code words, confidential phone company directories.

PHREAKING or FONING: Manipulating phone systems, usually to make long-distance calls at no charge.

Below is an excerpt from a four-part tutorial on credit card fraud posted on an exclusive East Coast BBS for elite advanced hackers:

- -

Carding! By Music Major. Believe it or not, without carding, a damper would be put on the computer users of America (and especially Canada). Can you imagine trying to save enough money to BUY a 2400 baud modem and a 30 meg drive for a BBS? Oh, of course it can be done, but considering that a majority of the active computer users are still in school, and most do not have a steady job, it will take too long, and cost too much for this average person to spend on a BBS. Working at minimum wage at a part-time job, it would take 30 weeks of CONSTANT saving to put up the BBS (with good modem and good drive). Not a pretty thought! When the going gets tough, the tough go carding!

Music Major goes into more detail on later, he warns younger hackers about the possible risks of trying a method he claims he invented: "I have called this method foning for cards. To be convincing, you MUST have a fluent tongue and a semi-deep voice (skip this part if your voice is still cracking--refer back when you get a real voice)."

- -

Maxfield's operation is called BoardScan. He is paid by major corporations and institutions to gather and provide them with pertinent intelligence about the computer underground. Maxfield also relies on reformed hackers. Letters of thanks from VISA and McDonald's decorate a wall in his office along with an autographed photo of Scottie, the engineer on Star Trek's Starship Enterprise.

Often he contacts potential clients about business. "More often I call them and say, I've detected a hacker in your system," said Maxfield. "At that point, they're firmly entrenched. Once the hackers get into your computer, you're in trouble. It's analogous to having roaches or mice in the walls of your house. They don't make their presence known at first. But one day you open the refrigerator door and a handful of roaches drop out."

Prior to tracking hackers, Maxfield worked for 20-odd years in the hardware end of the business, installing and repairing computers and phone systems. When the FBI recruited him a few years back to work undercover as a hacker and phone phreak, Maxfield concluded fighting hacker crime must be his mission in life.

"So I became the hacker I was always afraid I would become," he said. Maxfield believes the hacker problem is growing more serious. He estimates there were just 400 to 500 hackers in 1982. Every two years, he says, the numbers increase by a factor of 10. Another worrisome trend to emerge recently is the presence of adult computer hackers. Some adults in the computer underground pose as Fagans, a character from a Charles Dickens novel who ran a crime ring of young boys, luring young hackers to their underground crime rings.

Courtesy of Galaxy Girl and Silicon Thief
Major Editing by Knight Lightning
Written by Lisa Olson (News Staff Writer for Detroit News)

A few notes: from KL

It is my assumption that Music Major's Carding Tutorial was actually four posts made on the Carding Subboard on Stronghold East. If this is true then it would mean that at the time or previous to the time of this article Maxfield was on SE. This post was probably taken in before the MASSIVE user purge on Stronghold East.

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CONNECTED NODES AS OF 10/05/88
TOTAL NODES = 2491

Node	Site	System
DOCCRC		OS CP6
UNCACDC		
UNCAMULT		
EWC		VMS
DKATS11	Aarhus Tek Skole (ATS)	IBM VM/SP R4
DKJAU11	Aarhus Tekniske Skole, Denmark	IBM VM/SP R4
DKAAUCHE	Aarhus Univ	VMS
ACUVAX	Abilene Christian Univ	VMS
FINABO	Abo Akademi	DEC VMS 4 3
ACADIA	Acadia U	NOS
IMIAGIP1	AGIP S p.A.	IBM MVS/XA V 2 1.5
ALBION	Albion College	VMS
ALCANKTN	Alcan Int Ltd KRDC	VMS
FINALKO	Alko Research Lab , Finland	IBM MVS/XA
ALLEGVM	Allegheny Col	VM/SP
EB0UAB51	Altes Energies-U A. Barcelona	DEC VMS
APSEDOFF	American Physical Soc	UNIX BSD
AUVM	American University	VM/SP HPO
AUVM2	American University	VM/SP
AMHERST	Amherst College Acad Comp Ctr	VMS
TRANAVM1	Anadolu Univ	VM/SP R 5
TRANAVM2	Anadolu University, Eskisehir	IBM VM/SP R5
ANNENRES	Annenberg Res Instit	UNIX
APPSTATE	Appalachian State U	VMS
ANLCMT	Argonne Chemical Tech Div	VMS
ANLCHM	Argonne Chemistry Division	VMS
ANLHEP	Argonne High Energy Physics Div	VMS
ANLMST	Argonne Materials Sci and Tech	VMS
ANLNBI	Argonne Nat Lab Admin NBI	UNIX BSD
ANLADM1	Argonne Nat Lab Admin NBI 1	OASYS
ANLADM2	Argonne Nat Lab Admin NBI 2	OASYS
ANLEES1	Argonne Nat Lab EES NBI	OASYS
ANLNBI2	Argonne Nat Lab EES NBI	UNIX BSD
ANLEES2	Argonne Nat Lab EES NBI	OASYS
ANLEES3	Argonne Nat Lab EES NBI	OASYS
ANLEL	Argonne Nat Lab Elec Div	VMS
ANLEES	Argonne Nat Lab Ener & Environ	VMS
ANLNESC	Argonne National Energy Sfw Ctr	VM/SP
ANLOS	Argonne National Lab	MVS/SP
ANLVM	Argonne National Lab	VM/SP
ANLVMS	Argonne National Lab	VMS
ANLCV1	Argonne National Lab Cluster VAX	VMS
ANLEMC	Argonne National Lab Electron Mic Ctr	VMS
ANLVG	Argonne National Lab VAX Gateway	VMS
ANLPHY	Argonne Physics Division	VMS
ANLPNS	Argonne Pulsed Neutron Src Proj	VMS
ASUIC	Arizona St U Info Ctr	VM/SP
ASUCP1	Arizona State - U Chem/Phys/Solid State Sc	VMS
ASUACAD	Arizona State U	VM/SP
ASUERC	Arizona State U Eng Comp Ctr	VM/HPO
ASUCP2	Arizona State U Lib Arts & Sci Res Cmpt Fa	VMS
ASUACVAX	Arizona State Univ Acad VAX	VMS
FRIHAP31	Assistance Publique	IBM MVS/SP
ACMVM	Assoc Computing Machinery	VM/SP
AUDUCVAX	Auburn Univ	VMS
AEARN	Austria EARN	VM/SP
BABSON	Babson Coll	VMS
BSUVAX1	Ball State Univ	VMS
BARILAN	Bar Ilan U Comp Ctr	IBM MVS/SP 1 3.5
BARILVM	Bar Ilan Univ CC	IBM VM/SP R4
BIMACS	Bar llan Univ Math & CS	UNIX BSD 4 2

BAYLOR	Baylor Univ	VMS
BAYLRHSB	Baylor Univ HSB	VM/IS
BCIT	BCIT Computer Resources	VM/HPO
BCSC02	BCSC	VM/SP HPO 4 2
NOBIVM	Bedrifts Instit	VM/SP HPO R5
BEARN	Belgium EARN	VM/SP
BGUNOS	Ben Gurion U Comp Ctr	CDC NOS 2 3
BGUVMS	Ben Gurion University	DEC VMS 4 5
BGUVM	Ben Gurion University	IBM VM
BENGUS	Ben-Gurion U Math Comp Sci	UNIX BSD 4 3
BENTLEY	Bentley College	PRIMOS
CBEBDA3T	Berne University	IBM MVS/SP
CBEBDA3C	Berne University	IBM MVS/SP
BGUEE	BGU Electrical Eng.	DEC VMS 3 7
TRBILUN	Bilkent University, Ankara	AOS/VS V 7.57
TECHMAX	Biomed Engineering Technion	DEC VMS
BRCVAX	Biotech Res Ctr	VMS
BITNIC	BITNET NIC	VM/SP
INTERBIT	BITNET-Internet Gateway	VM/SP/HPO
BITNETDC	BITNIC Demo	VM/SP
BNR	BNR Information Systems	VM/SP
TRBOUN	Bogazici Univ	NOS
BCCHEM	Boston College Chem Dept	VMS
BCVAX3	Boston College Computer Center	VMS
BCVMCMS	Boston College Computer Center	VM/HPO
BCVMS	Boston College Computer Center	VMS
BCVAX1	Boston College Computer Center	VMS
BCVAX2	Boston College Computer Center	VMS
BCVAX4	Boston College Computer Center	VMS
BOSTONU	Boston U Acad Comp Ctr	VM/SP HPO
BUACCA	Boston U Acad Comp Ctr	VM/SP HPO
BUISA	Boston U Admin Ctr	MVS/XA
BUASTA	Boston U Astronomy VAX A	VMS
BUCHMB	Boston U Chem Dept VAX B	VMS
BUCHMC	Boston U Chem Dept VAX C	VMS
BUCHMA	Boston U Chemistry VAX A	VMS
BUENGA	Boston U Engineering VAX A	VMS
BUMETA	Boston U Met Coll VAX A	VM
BUPHYA	Boston U Physics VAX A	VMS
BOSTCIML	Boston Univ CIML	VM/SP
BUMFGA	Boston Univ MFG ENG A	VM/SP
BUPHYC	Boston Univ Physics VAX C	VMS
BOWDOIN	Bowdoin College	VMS
BGSUSTAT	Bowling Green State Univ	VM/SP
BGSUOPIE	Bowling Green State Univ	VMS
BRANDLOG	Brandeis Univ Administration (LOGOS)	VMS
BRANDEIS	Brandeis Univ Feldberg Comp Ctr BINAH	VMS
BYULAW	Brigham Young U Law Sch	VMS
BYUSTAT1	Brigham Young Univ	VMS
BYUADAM	Brigham Young Univ	UNIX
BYUSTAT2	Brigham Young Univ	VMS
BYUSTAT3	Brigham Young Univ	VMS
BNLDAG	Brookhaven Nat Lab	VMS
BNL	Brookhaven National Lab	UNIX BSD
BNLVMA	Brookhaven National Lab	VM/SP
BNLCHM	Brookhaven National Lab	VMS
BNLCL1	Brookhaven National Lab	VMS
BNLUX0	Brookhaven National Lab	ULTRIX
BROWNCOG	Brown U Cognitive Sci	VMS
BROWNVM	Brown U Comp Ctr	VM/SP
BROWNCS	Brown U Computer Science Dept	UNIX
BROWNHEP	Brown U Physics	VMS
BRYNMAWR	Bryn Mawr College	VMS
IDBSU	BSU	VM/SP
BUCKNELL	Bucknell U Comp Services	CP6
BKNLVMS	Bucknell U Comp Services	VMS
BYUCOAL	BYU Combust Lab VAX	VMS
BYUETIBM	BYU Eng College	VM/SP
BYUADMIN	BYU ISS	VM/SP
BYUVAX	BYU ISS VAX	VMS

BYULIB	BYU Library	VM/SP
IPVCCN	C.C.N. Pavia, Italy	IBM VM/SP R5
FRCCSC21	C.C.S.C, Strasbourg	MVS
FRCCSC13	C.C.S.C, Strasbourg, France	IBM VM/SP5
FRCCSC12	C.C.S.C, Strasbourg, France	IBM VM/XA SF2
FRCICB71	C.I.C.B. Rennes	BULL MULTICS
FRCICB81	C.I.C.B., Rennes, France	CDC/NOS/VE
FRCIME51	C.I.M.E., Grenoble, France	DEC VMS
FRCIIL71	C.I.R.I.L., Nancy, France	BULL MULTICS
ICSCRAI	C.R.A.I., Rende, Italy	IBM MVS/SP 3 8
IPACRES	C.R.E.S. - Palermo, Italy	DEC VMS
INAMVSXA	C.R.I.A.I. Napoli - Italy	IBM MVS/XA
INACRIAI	C.R.I.A.I. Napoli - Italy	IBM VM/SP
FRIHBO11	C.R.I.H.	VM/SP
FRIHMA21	C.R.I.H. de Marseille, France	IBM MVS
IBACSATA	C.S.A.T.A. - Bari, Italy	IBM VM/SP R3 1
FRCTN11	C.T.N.	IBM VM
IMIUCCA	Calcolo Autom Milano, Italy	UNIX 4 3
CALPOLY	Calif Poly State Univ	VM/SP
CALSTATE	Calif State U	NOS
CALTECH	Caltech	VMS
CITXRAY	Caltech	VMS
CIT4381	Caltech	VM/SP
CITDEIMO	Caltech Astronomy DEIMOS	
CITPHOBO	Caltech Astronomy PHOBOS	VMS
CITJULIE	Caltech CCO	VMS
CITROMEO	Caltech CCO	VMS
CITIAGO	Caltech CCO IAGO	VMS
HAMLET	Caltech C3P/CCO	VMS
CITHEX	Caltech HEP	VMS
CITCHEM	Caltech XHMEIA	VMS
CANISIUS	Canisius College CC	VMS
CARLETON	Carleton U	CP-6
CMASV1	Carnegie Mellon U Comp Srvs	VMS
DRYCAS	Carnegie Mellon Univ Comp Clb	VMS
CMUCCVMA	Carnegie-Mellon U Comp Ctr	VM/SP
CWRU	Case Western	VMS
CUA	Catholic Univ of America CC	VMS
CUAVAXB	Catholic Univ of America CC	VMS
CUAVAXA	Catholic Univ of America CC	VMS
CATCC	Catonsville Comm Coll	VM/SP
FRMRS11	CCSJ, Marseille, France	IBM VM/SP
FRCCUB11	CCUB	IBM VM/SP5
FRCCUP51	CCUP, Marseille, France	DEC VMS
CDCCENTR	CDC Demo Ctr	NOS
CEBAFVAX	CEBAF Computer Center	VMS
FRSAC12	CEN-SACLAY DPhPE, Gif/Yvette	IBM VM/SP
BIBLIO31	Centennial College	VM/SP
CENCOL	Centennial College	VM/SP 4
CFR	Central Florida Reg Data Ctr MVS	MVS/SP
CFRVM	Central Florida Reg Data Ctr VM	VM/SP
CMUVM	Central Michigan Univ	VM/HPO 4.2
FRAIX11	Centre de Calcul Aix-Marseille	IBM VM/CMS
FRBDX11	Centre IC Bordeaux	VM/SP
FRSAC11	Centre Scientifique CEA Saclay	IBM VM/SP
FRPOI11	Centre Scientifique IBM Paris	IBM VM/SP
EMDCSIC1	Centro de Calculo	NOS 2-5-3
IPGCUIC	Centro U Itialia Centrale	IBM VM/SP R3 1
LUXCEP11	CEPS, Walferdange	VM/SP
FRTLS12	CERFACS	VM/SP
CERNADP	CERN	IBM VM/SP
CEARN	CERN	VM/SP
CERNVAX	CERN	UNIX BSD
CERNVM	CERN	IBM VM/SP HPO R4 2
GEN	CERN	IBM MVS/SP 1 3.3
CRVXP173	CERN P173 Exp	VMS
CRUXNMC	CERN P173 Experiment	DEC VMS
CRUXNMCE	CERN P173, Geneva, Switzerland	DEC VMS
CRUXNMCD	CERN P173, Geneva, Switzerland	DEC VMS
CRUXNHD	CERN P173, Geneva, Switzerland	DEC VMS

CRUXHYPM	CERN P173, Geneva, Switzerland	DEC VMS
CRUXNMC1	CERN P173, Geneva, Switzerland	DEC VMS
CRUXNMC2	CERN P173, Geneva, Switzerland	DEC VMS
CRUXHYPD	CERN P173, Geneva, Switzerland	DEC VMS
UNICC	CERN, Geneva, Switzerland	IBM MVS/SP
CERNEMU1	CERN, Geneva, Switzerland	IBM VM/SP
CEARNV2	CERN, Geneva, Switzerland	IBM VM/SP
AECLCR	Chalk River Nuclear Labs	NOS
CAS	Chemical Abstracts Srv	ULTRIX-32
FRCICG71	CICG, Grenoble	BULL MULTICS
FRGREN81	CICG, Grenoble, France	CDC
FRNICE51	CICNT, Nice, France	VMS
FRCIRP71	CICRP, Paris, France	BULL MULTICS
FRTOU71	CICT - Toulouse	BULL MULTICS
FRCICT81	CICT Toulouse, France	CDC/NOS/VE
EMDCIE51	CIEMAT	DEC VMS 4 7
EMDJEN11	CIEMAT (Junta Energia Nuclear)	VM/SP
IMICLVM	CILEA	VM/HPO
IMICLVX	CILEA, Segrate - Milano, Italy	DEC VMS 4 5
IMIVMHEP	CILEA, Segrate - Milano, Italy	IBM VM/HPO R4 2
ICINECA2	CINECA	DEC VMS 4 7
IBOINFN	CINECA - Bologna	RSX11-M
ICINECA3	CINECA - Bologna, Italy	IBM VM/SP HPO R4 0
ICINECA	CINECA Bologna	IBM VM/SP HPO R4 2
ICINECA1	CINECA, Bologna	CDC NOS 2 4.1
FRORS31	CIRCE, Orsay, France	MVS/SP
FRORS12	CIRCE, Orsay, France	IBM VM/SP R4
FRORS13	CIRCE, Orsay, France	IBM VM/SP R4
IMICISE	CISE - Milano, Italy	IBM VM/SP HPO R3
CITADEL	Citadel Military Co of SC	VMS
CITADEL1	Citadel Military Co of SC	VMS
CITADEL2	Citadel Military Co of SC	VMS
FRCITL71	CITI Lille	BULL MULTICS
FRCITI51	CITI 2	VAX VMS
CLARGRAD	Claremont Grad School Comp Ctr	VMS
CLARMATH	Claremont Grad School Math Dept.	VMS
CLARKU	Clark Univ Off of Info Sys	VMS
CLVM	Clarkson U ERC	VM/SP
CLVMS	Clarkson U ERC	VMS
CLUTX	Clarkson U ERC	UTX/32
CLGW	Clarkson U ERC	UNIX
CLMIE	Clarkson Univ MIE	VMS
CLEMSON	Clemson U Comp Ctr	MVS/SP
CSUOHIO	Cleveland State U Computer Svcs	VM/SP
UTORCLSC	CLSC	VMS
UTORSCS1	CLSC	VMS
CMCHEM	CMU Chemistry Dept	VMS
CMCCVB	CMU Computing Services	VMS
ANDREW	CMU Computing Services	UNIX
CGECMU51	CMU Geneve	DEC VMS
CMPHYSME	CMU Med Energy Physics	VMS
CMPHYS	CMU Physics Dept	VMS
WACES	CMU Physics Dept	VMS
FRCRPE51	CNET/CRPE	VMS
IPDCNR	CNR - Area di Ricerca, Padiva	DEC VMS
IRMITSE	CNR ITSE Roma, Italy	IBM VM/SP R3
FRCGM51	CNRS - CGM	VAX VMS
FRCECM51	CNRS Ctr Metallurgique	VMS
FRUNIP11	CNRS-LITP, Paris, France	VM/SP R5
FRPOLY11	Cntr Info Ecole Polytech	VM/SP
ICNUCEVB	CNUCE - C N.R. Pisa, Italy	IBM VM/SP HPO R4 0
ICNUCEVX	CNUCE - C N.R. Pisa, Italy	VMS 4 7
FRMOP22	CNUSC - Montpellier	MVS/XA
FRMOP11	CNUSC Montpellier	VM/SP
FRMOP12	CNUSC, Montpellier	VM/SP
WMMVS	Col William and Mary Comp Ctr	MVS/SP
WMHEG	Col William Mary Enrgy Grp	VMS
CSHLAB	Cold Spring Harbor Lab	VMS
COLGATEU	Colgate Univ	VMS
FRCDF51	College de France, Paris	DEC VMS

CMR001	College militaire royal	CP-6
CODVM1	College of DuPage Comp. Srvs	VM/SP
HLYCRSS1	College of the Holy Cross	VM/SP
HLYCROSS	College of the Holy Cross	VMS
MINES	Colorado Sch Mines	VMS
CSUGREEN	Colorado State U	
CSUGOLD	Colorado State U	
CSU205	Colorado State U	VSOS 2.3
COLOSTAT	Colorado State U	
CUCCVX	Columbia U Admin Dept	VMS
CUGSBVAX	Columbia U Bus Sch Futures Ctr	VMS
CUCHEM	Columbia U Chemistry Dept	VMS
CUCHMB	Columbia U Chemistry Dept	VMS
CUCEVX	Columbia U Civil Eng.	VMS
CUCCA	Columbia U Cluster Ctrl A	UNIX BSD
CUCSVM	Columbia U Comp Sci	VM/SP
CUNIXC	Columbia U Ctr Cmptng. Act.	ULTRIX
CUVMC	Columbia U Ctr for Comp Activities	VM/SP
CUVMA	Columbia U Ctr for Comp Activities	VM/SP
CUVMB	Columbia U Ctr for Comp Activities	VM/SP
CUMIN	Columbia U Ctr for Comptng Act	VMS
CUGSBVM	Columbia U Grad Sch Business	VM/SP
CUCCFA	Columbia U Health Sciences	VMS
CUHSDA	Columbia U Health Sciences	VMS
CUMBG	Columbia U Molecular Biophy. Graph	VMS
CUORCA	Columbia U Orthopaedic Res Clust A	VMS
CUORMB	Columbia U Orthopaedic Res Clust A	VMS
CUORMA	Columbia U Orthopaedic Res Micro A	VMS
CUPHYD	Columbia U Physics Dept	VMS
CUSB	Columbia U Stony Brook Exp - CESR	VMS
CUTCV1	Columbia U Teachers Coll	VMS
CUTHRY	Columbia U Theoretical Phys	VMS
CUCISA	Columbia Univ Ctr for Clinical Res	VMS
UTKVX	Computing Center	VMS
CONU1	Concordia U Computing Ctr	NOS
CONU2	Concordia U Computing Ctr	VMS
CONNCOLL	Connecticut Coll	ULTRIX
CTSTATEU	Connecticut State Univ Sys	VMS
IRMCNR	Consig Naz Richerche - Roma	IBM VM/SP R3
DKCBS01	Copenhagen Business School, DK	PRIMOS
DKTC11	Copenhagen Technical College	IBM VM/SP
CRNLION	Cornell Lab of Plasma Stud	ULTRIX
CORNELLA	Cornell U Computer Services	VM/SP/HPO
CORNELLC	Cornell U Computer Services	VM/SP/HPO
CRNLASTR	Cornell U Dept of Astronomy	VMS
CRNLCS	Cornell U Dept of Computer Science	UNIX BSD
CRNLGSM	Cornell U Grad Sch of Mgmt	VMS
CRNLNS	Cornell U Lab of Nuclear Studies	VMS
CRNLIMAP	Cornell U Mech Eng	VM/SP
CUMC	Cornell U Medical College	VM/SP
CORNELLF	Cornell U Production Supercomp Facil	VM/XA/SF
CORNELLD	Cornell U Supercomputer Facil	VM/SP/HPO
CRNLCAM	Cornell Univ CAM	UNIX BSD
CRNLVAX2	Cornell Univ Comp Servs	UNIX BSD
CRNLVAX3	Cornell Univ Comp Servs	ULTRIX
CRNLVAX4	Cornell Univ Comp Servs	ULTRIX
CRNLVAX1	Cornell Univ Comp Srvs	UNIX BSD
CRNLVAX5	Cornell Univ Comp Svcs	VMS
CRNLMVS	Cornell Univ Computer Srvs	MVS/SP
CRNLDEV	Cornell Univ Ctr Theory & Simul in Sci & E	UNIX BSD
CRNLCHES	Cornell Univ HESS	VMS
CRNLASSP	Cornell Univ LASSP	UNIX BSD
CRNLNUC	Cornell Univ LNS	SUNOS UNIX
CRNLMSC2	Cornell Univ Materials Sci Ctr	CONVEX UNIX
CRNLMSC3	Cornell Univ Materials Sci Ctr	CONVEX UNIX
CRNLEE	Cornell Univ Sch Elec Eng	UNIX BSD
CRNLTHRY	Cornell Univ Theory Ctr.	UTX/32
FRIHRO21	CRIH de Haute Normandie	MVS
FRIHVG11	CRIH de Villeneuve St. George	VM/SP
FRCRN51	CRN - DIHE, France	DEC VMS

ITOCSIP	CSI Piemonte, Torino, Italy	IBM MVS/SP 3 8
ILCTEHOL	CTE, HOLON	VMS
SECTHF51	CTH Gothenburg, Sweden	DEC VMS
FRCTHO11	CTHO, Orsay, France	IBM VM/SP
GRPATVX1	CTI, Computer Engineering Dept	VMS
CATE	Ctr for Adv Tech Educ	VM/SP
BBADMIN	CUNY - Baruch Col Admin Comp Ctr	VM/SP
BBADMIN2	CUNY - Baruch Col Admin Comp Ctr	VM/SP
BARUCH	CUNY - Baruch College	VM/SP
BMACADM	CUNY - Bor of Manhattan Comm Col	VM/SP
BM002	CUNY - Bor of Manhattan Comm Col Adm	VM/SP
BX001	CUNY - Bronx Community College	VM/SP
BKLYN	CUNY - Brooklyn College	VM/SP
BKLYNMVS	CUNY - Brooklyn College	MVS/SP
BKLYNCIS	CUNY - Brooklyn College	UNIX
CCNY	CUNY - City College of New York	VM/SP
CCNYVME	CUNY - City College of New York	VM/SP
CCNYSCI	CUNY - City College of NY	UNIX
CCNYVAX1	CUNY - City College of NY	VMS
SI001	CUNY - Col of Staten Island	VM/SP
CUNYVMS1	CUNY - Graduate Center	VMS
HUNTER	CUNY - Hunter College	VM/SP
KB001	CUNY - Kingsborough Comm Col	VM/SP
LEHMAN	CUNY - Lehman College	VM/SP
NY001	CUNY - New York City Tech Col	VM/SP
QUEENS	CUNY - Queens College	VM/SP
QB001	CUNY - Queensborough Comm Col	VM/SP
CUNYJES3	CUNY - University Computer Ctr	MVS/SP
YORK	CUNY - York College	VM/SP
CUNYVM	CUNY University Computer Ctr	VM/SP/HPO
CUNYVMV2	CUNY University Computer Ctr	VM/SP/HPO
HOSTOS	CUNY University Hostos Comm. Coll	VM/SP
JJAYVM	CUNY University John Jay. Coll	VM/SP
LAGCC	CUNY University LaGuardia Comm. Coll	VM/SP
MEDGAR	CUNY University Medgar Evers Coll	VM/SP
MCVAX	CWI Amsterdam	UNIX
FRDRFG01	D.R.F. , Grenoble, France	PRIMOS REV 21
SDNET	Dakota State College	VM/SP
DAL	Dalhousie U Comp Cntr	NOS
DALAC	Dalhousie University UCIS	VMS
DALADM	Dalhousie University UCIS	MVS/SP
DKDHI11	Danish Hydraulic Inst	IBM VM/SP
DKSFI11	Danish Ntl Inst Social Res	IBM VM/SP R3
DARTCMS1	Dartmouth College Kiewit CC - CMS1	VM/SP
DAVIDSON	Davidson Coll	VMS
DEPAUL	De Paul Univ	VMS
DEPAULC	De Paul Univ	VMS
DEPAULO	De Paul Univ	VMS
DECUSA	DECUS Symposium Demo Node	VMS
DECUSB	DECUS Symposium Demo Node	VMS
DECUSC	DECUS Symposium Demo Node	VMS
DECUSD	DECUS Symposium Demo Node	VMS
DECUSE	DECUS Symposium Demo Node	VMS
DECUSF	DECUS Symposium Demo Node	VMS
DECUSG	DECUS Symposium Demo Node	VMS
DECUSH	DECUS Symposium Demo Node	VMS
DECUSI	DECUS Symposium Demo Node	VMS
DECUSJ	DECUS Symposium Demo Node	VMS
D00DEMO	Demo Node Germany	
DENISON	Denison Univ	VMS
FRULM63	Dept Math ENS Paris	UNIX
JPNKBUDS	Dept of Systems Eng	VM/SP
DHHDESY3	DESY	MVS/SP
DFVLROP1	Deutsche FVLR Oberpfaffenhofen	IBM VM/SP HPO
DHDDKFZ1	Deutsches Krebsforschungszentr	IBM VM/SP HPO R4 2
DFNGATE	DFN Gateway at GMD DA, Germany	IBM VM/SP R4
DFVLRBS1	DFVLR Braunschweig	IBM VM/SP HPO
DFVLRGO1	DFVLR Goettingen	IBM VM/SP HPO
DFVLRKP1	DFVLR Koeln-Porz	IBM VM/SP HPO
DFVLRLA1	DFVLR Lampoldshausen, Germany	IBM VM/IS

DFVLROP2	DFVLR Oberpfaffenhofen	IBM MVS/XA
DFVLRST1	DFVLR Stuttgart	IBM VM/SP HPO
DKDHI12	DHI, Horsholm, Denmark	IBM VM/SP
DICKINSN	Dickinson College	VMS
IFICHIM	Dip. di Chimica Firenze, Italy	VM/SP
ITOINFO	Dip. Informatica Torino, Italy	UNIX 4 2
IPIINFO	Dip. Informatica Univ Pisa	UNIX BERKELEY
IRM2CIV	Dip. Ingen. Civile Univ Roma 2	VM/SP
IPIFIDPT	Dipartimento di Fisica, Pisa	IBM VM/SP HPO R5
DB0DIW11	DIW Berlin	VM/SP
HLSDNL50	DNL Leidschendam	VMS 4 6
HLSDNL5	DNL Leidschendam, Netherlands	VMS 4 6
HLSDNL51	DNL Leidschendam, Netherlands	VMS 4 6
DKDOU01	DOU, Odense, Denmark	SPERRY OS 1100
DRAKE	Drake Univ	VMS
DREW	Drew Univ	VMS
DRUNIVAC	Drew Univ	VMS
DUPR	Drexel Univ Off Cmptng Srvs	PRIMOS
DUVM	Drexel University	VM/SP
DUPHY1	Drexel University	VMS
DUKEFSB	Duke U FUQUA Bus Sch	VM/SP
DUKE	Duke University	MVS/SP
FREMBL51	E.M.B.L. Grenoble, France	VMS
FRERB51	E.N.S.E.R.B., Talence, France	DEC VMS
FRENSL61	E.N.S.L	UNIX BSD 4 2
EBESADE0	E.S.A.D.E. Barcelona - Spain	AOS/VS
EARNWRLD	EARN Demonstration node	VAX/VMS
ECUVM1	East Carolina Univ Comp & Info Sys	VM/HPO
ETSU	East Tennessee St. Univ	VM/SP
ETSUACE	East Tennessee St. Univ	VM/SP
EWCN	East-West Center	VMS
ECLACSVM	ECLA, Computer Center	VM
FRECCL11	Ecole Centrale de Lyon, France	IBM VM/SP R4
FRECP11	Ecole Centrale de Paris	IBM VM/SP R4
FREMP11	Ecole des Mines Paris	VM/SP
FRHEC11	Ecole Hautes Et Commer Paris	IBM VM/SP R4 0
FRULM11	Ecole Normale Super Paris	IBM VM/SP
FRULM52	Ecole Normale Superieure Paris	VMS
POLYTEC1	Ecole Polytechnique	MUSIC
POLYTEC2	Ecole Polytechnique	MUSIC
POLYTEC3	Ecole Polytechnique	MUSIC
POLYTECA	Ecole Polytechnique VM	VM/SP
FRESCR51	Ecole Sup de Commerce	DEC VMS
FRESE51	Ecole Super d'Elec	DEC VMS
IECSEC	ECSEC IBM Rome	IBM VM/SP HPO 3 4
RUIPC1E	EDS Deutschland GmbH, Germany	IBM MVS/XA 2 1.3
ECNCDC	Edu Computing Network of IL	NOS
CIEARN	Educat & Research, Ivory Coast	VM/SP
EDUCOM	EDUCOM	VMS
EDUCOM2	EDUCOM	VM/SP
AMBER88	EDUCOM '88 Prime Demo	PRIMOS
EDUCOMDW	EDUCOM 88 Conf. Demo Node	VMS
EDUCOM88	EDUCOM 88 Conf. Demo Node	VMS
AWIUNI11	EDV Zentrum U Wien	IBM VM/SP HPO R4 2
AWIBOK01	EDV-Zentrum Boku Wien	PRIMOS
AWITUW02	EDV-Zentrum TU Wien	NOS/VE 1 3.1
AWITUW01	EDV-Zentrum TU Wien	NOS/VE 1 3.1
AINUNI01	EDV-Zentrum Uni Innsbruck	NOS/VE 1 3
TREARN	Ege Univ	VM/SP
CLSEPF51	Eid Tech Hoch Lausanne	DEC VMS
CZHETH5A	Eidgen Tech Hoch Zuerich	VMS
CAGEIR5A	EIR, Wuerenlingen, Switzerland	VMS
EPRI	Electric Power Res Inst	VM/SP
DHHEMBL5	EMBL Hamburg, Germany	DEC VMS 4 6
DHDEMBL	EMBL Heidelberg, Germany	VMS
EMUVM1	Emory U Comp Ctr - VM1	VM/SP
EMUVM2	Emory U Comp Ctr - VM2	VM/SP
EMORYU1	Emory U Comp Ctr UNIX1	UNIX BSD
EMORY	Emory U Math and CS	BERKELEY UNIX
EMRYCC	Emory Univ Comp Ctr VMS VAX	VMS

EMORYU2	Emory Univ Comptng Ctr	UNIX
EMRCAN	Energy Mines & Resources Can	VMS
HPEENR51	ENR, Petten, Netherlands	VAX VMS
HROEUR5	Erasmus U Rotterdam	VMS 4
ESOC	ESA ESOC, Darmstadt, Germany	IBM VM/SP HPO R5 0
HNOESA10	ESA Europ Space Res Tech Ctr	VM/SP 4 2
IFRESA10	ESA/ESRIN Frascati, Italy	IBM VM/SP R4
FRESA10	ESA, France	IBM VM/SP R3 1
DGAESO51	ESO, Garching	VMS
ESASTSP	ESTEC / STSP Project	VM/SP HPO4 2
FRESTP11	ESTP, Paris, France	VM/SP
CZHETH1I	ETH und Uni Zuerich IBT	IBM VM/SP HPO 5 0
CZHETH1B	ETH Zuerich Bibliotek	IBM VM/SP HPO 5 0
CZHETH1C	ETH Zuerich IKB	IBM VM/SP HPO 5 0
CZHETH1A	ETHZ/IHP	IBM VM/SP HPO 4 2
ROSEDALE	ETS	VMS
DHDEMBL5	European Molecular Biology Lab	VMS
ITSOGS	Exp. Geophys. Observ. Trieste	IBM VM/SP R4
ERENJ	Exxon Res & Eng Co	VM/SP
EREVAX	Exxon Res & Eng Co	VMS
FRFUPL11	F.U.P.L. de Lille, France	IBM VM/SP R4
IFISTAT	Fac. Econ e Comm Firenze	IBM VM/SP R5
DAAFHT1	Fachhochschule Aalen	VM/SP
DHNFHS1	Fachhochschule Heilbronn	IBM VM/SP R3
DKAFHS1	Fachhochschule Karlsruhe	IBM VM/SP R4
DMAFHT1	Fachhochschule Technik Mannheim	IBM VM/SP R4 0
DWIFH1	Fachhochschule Wiesbaden	IBM VM/SP R3
BNANDP11	Facultes U Notre Dame de la Paix Namur Bel	VM/SP R5
BNANDP10	Facultes U Notre Dame Namur	VM/SP R5
IRMFAO00	FAO	IBM VM/SP R4 2
DULFAW1A	FAW Ulm, Germany	VM/SP R4 5
DS0FBD11	FBD - Schulen Gemein GMBH	IBM VM/SP R3
FDACFSAN	FDA, CFSAN	VM/SP
FNALA	Fermi Natl Accelerator Lab	VMS
FNALDBG	FERMI Natl Accelerator Lab	VMS
FNAL	Fermilab	VMS
FNALB	Fermilab	VMS
FNALBSN	Fermilab	VMS
FNALB0	Fermilab	VMS
FNALC	Fermilab	VMS
FNALCDF	Fermilab	VMS
FNALNET	Fermilab	VMS
FNALVM	Fermilab	VM/SP
FNMFE	Fermilab	VMS
FNALG	Fermilab	VMS
FNALJ	Fermilab	VMS
FNALF	Fermilab	VMS
FNALE	Fermilab	VMS
FNALMDTF	Fermilab	VMS
FNAL01	Fermilab	VMS
FNAL03	Fermilab	VMS
FNAL05	Fermilab	VMS
FNAL17	Fermilab	VMS
FNAL26	Fermilab	VMS
FNAL27	Fermilab	VMS
FNACP	Fermilab	VMS
FNBIT	Fermilab	VMS
FNALH	Fermilab	VMS
FNALI	Fermilab	VMS
FNALK	Fermilab	VMS
FNCCF	Fermilab	VM
FNALAD	FERMILAB Ntl Lab	VMS
DHAFEU51	Fern-Uni Hagen (Informatik)	VMS
DHAFEU61	Fern-Uni Hagen (Informatik)	UNIX BSD
DHAFEU11	Fernuniversitaet Hagen	IBM VM/SP R4
DHAFEU52	Feruniversitaet Hagen	DEC VMS 4 7
FINFUN	Finnish S Comp Ctr Espoo	DEC VMS 4 1
TRFIRAT	Firat Univ	VM/SP R 3
FSUSFS	Fl St U Spr-comp Frnt-end Sys	NOS
FSURAI	FL State U Rsrch Instrtnl Sys	NOS

FSUSUP	FL State U Super Comp Sys	VSOS
NERVM	Florida NE Reg Data Ctr	VM/SP
NER	Florida NE Reg Data Ctr	MVS/XA
FSU	Florida State U	VM/SP
BEARN2	FNRS/NFWO, Brussels, Belgium	VM/SP
FORDMULC	Fordham Univ	VMS
FORDMURH	Fordham Univ	VMS
FANDM	Franklin and Marshall Coll	VMS
FANDMA	Franklin and Marshall Coll	VMS
FANDMB	Franklin and Marshall Coll	VMS
FANDMC	Franklin and Marshall Coll	VMS
FHCRCVM	Fred Hutchinson Cancer Res Ctr	VM/SP
FHCRCVAX	Fred Hutchinson Cancer Res Ctr Div Clin Re	VMS
DB0DSS81	Freie Universitaet Berlin	SIEMENS BS2000
DB0FHI01	Fritz Haber Institut der Max Planck Gesell	CDC NOS/BE 1 5
FIPORT	FSCC, Espoo, Finland	DEC VMS
DB0FUB03	FU Berlin ZEDAT CDC	CDC NOS/BE 1 5
DB0FUB11	FU Berlin ZEDAT CDC, Germany	IBM VM/SP
GALLUA	Gallaudet Univ Comp Svcs	VMS
GALLUB	Gallaudet Univ Comp Svcs	VMS
GALLUE	Gallaudet Univ Comp Svcs	VMS
FRGAN01	GANIL, Caen, France	MAX32 REV A 1
GECRDVM1	GE R&D	VM/SP
CGEHCU61	Geneva Hospital, Switzerland	UNIX
GMUVAX	George Mason U	VMS
GWUVM	George Washington U Comp Ctr	VM/SP
GUVM	Georgetown U Acad CMS	VM/SP
GUVAX	Georgetown U Acad VAX	VMS
GSUMVS1	Georgia State U - MVS1	MVS/XA
GSUVM1	Georgia State U - VM1	VM/SP
GSUVM2	Georgia State Univ CC VM2	VM/SP
GITVM2	Georgia Tech CAE/CAD Lab	VM/SP
GITCDC1	Georgia Tech Comp Svcs	NOS
GITCDC2	Georgia Tech Comp Svcs	NOS
GITNVE2	Georgia Tech Comp Svcs	NOS/VE
GITATT1	Georgia Tech Computing Svcs	UNIX SYSTEM V
GITVM1	Georgia Tech Computing Svcs	VM/SP/HPO
GTRI01	Georgia Tech Research Inst.	VM/SP
DBNGMD21	Ges. Mathematik Datenv Bonn	MVS/SP
DDAGMD11	Ges. Mathematik Datenv Darmstadt	IBM VM/SP R4
DEARN	Gesellschaft fuer Schwerionenf	IBM VM/SP R5
DDAGSI3	Gesellschaft fuer Schwerionfor	IBM MVS/XA 2 1.3 VFE
FRGETA11	GETA	VM/SP
GBURG	Gettysburg Coll	VMS
DGHGKSS4	GKSS, Geesthacht, Ger	SIEMENS BS3000 E 40
DBNGMD12	GMD Bonn, Germany	IBM VM/SP R5
SEGUC11	Gothenburg U Comp Ctr	IBM VM/SP R2
SEGUC21	Gothenburg U Comp Ctr	IBM MVS/SP 1 3.3
UKACRL	Great Britain EARN London	IBM VM/SP R3
FRPROG61	GRECO Programmation Bordeaux	UNIX
GRIN2	Grinnell College - Admin	VMS
GRIN1	Grinnell College Academic	VMS
FRGAG51	Groupe Astrophysique Grenoble	VMS
DGAGRS2A	GRS Garching	IBM MVS/XA
DK0GRS11	GRS Koein	VM/SP
DM0GSF11	GSF Muenchen	VM/SP
DM0GSF51	GSF-MEDIS	VMS
DDAGSI5	GSI Darmstadt VAX	DEC VMS 4 3
DDAGSI1	GSI Darmstadt, Germany	IBM VM/SP R4 0
DDAGSI1O	GSI Darmstadt, Germany	IBM VM/SP R4 0
GACVAX1	Gustavus Adolphus Coll	VMS
DGOGWDG1	GWD Goettingen, Germany	IBM VM/SP R4
DGOGWDG5	GWD Goettingen, Germany	DEC VMS
GWUVAX	GWU - School of Eng.	VMS
SEASVM	GWU - School of Eng. IBM	VM/SP
HADASSAH	Hadassah U Hospital	DEC VMS
DB0HMI41	Hahn-Meitner-Institut Kerforschung	SIEMENS BS3000 MSP 10
HAIFAUVM	Haifa University	IBM VM/SP R4 1
HAMPVMS	Hampshire College	VMS
KRHYUCC1	Hanyang Univ	VMS

HUSC5	Harvard HASCS	VMS
HUSC2	Harvard HASCS	BSD UNIX 2.9
HUARP1	Harvard U Atmos Res Project	VMS
HARVBMB	Harvard U Biochem & Molecul Bio	UNIX BBN
HARVJMMY	Harvard U Biostat Res Cmptng	ULTRIX
HARVBUS1	Harvard U Bus Sch	VM/SP
HUCHE1	Harvard U Chemistry VAX1	VMS
HARVARD	Harvard U Computer Science	UNIX BSD
CFA2	Harvard U Ctr Astrophysics	VMS
CFA3	Harvard U Ctr Astrophysics	VMS
CFA	Harvard U Ctr Astrophysics	VMS
CFAAMP	Harvard U Ctr Astrophysics	VM/SP
CFA4	Harvard U Ctr Astrophysics	VMS
CFA5	Harvard U Ctr Astrophysics	VMS
CFA6	Harvard U Ctr Astrophysics	VMS
CFA7	Harvard U Ctr Astrophysics	VMS
CFA8	Harvard U Ctr Astrophysics	VMS
CFAPS2	Harvard U Ctr Astrophysics	VMS
HARVPCNA	Harvard U Faculty Arts & Sciences	MS-DOS
HUGSE1	Harvard U Grad Sch of Ed	VMS
HARVHEP	Harvard U High En Physics Lab	VMS
HUHEPL	Harvard U High Energy Physics	VMS
HUXTAL	Harvard U Mole Bio Cmptng.	VMS
HARVARDA	Harvard U OIT	VM/SP
HUSSLE	Harvard U Physics Dept	VMS
HARVUNXW	Harvard U Psychology Dept	UNIX BSD
HARVUNXC	Harvard U Psychology Dept	UNIX
HARVUNXU	Harvard U Science Center	UNIX BSD
HUSC6	Harvard U Science Ctr	UNIX
HULAW1	Harvard U Science Ctr	VMS
HUSC3	Harvard U Science Ctr	VMS
HUMA1	Harvard U Science Ctr	UNIX BSD
HUSC7	Harvard U Science Ctr	ULTRIX
HUSC8	Harvard U Science Ctr	ULTRIX
HUSCGW	Harvard U Science Ctr BITNET Mail Gtwy	VMS
HARVUNXT	Harvard U Sociology Dept	UNIX BSD
HARVSPHA	Harvard Univ Health Sci. Cmptng. Fac.	ULTRIX
HARVSPHB	Harvard Univ Health Sci. Cmptng. Fac.	ULTRIX
FOURCC	Harvey Mudd Col Comp Services	VMS
HMCVAX	Harvey Mudd Col Comp Srvs	VMS
ECHMC	Harvey Mudd Col Eng Dept	VMS
FROSH	Harvey Mudd Col Eng Dept	VMS
YMIR	Harvey Mudd Col Math Dept	VMS
HECMTL01	Hautes Etudes Commerciales	
HVRFORD	Haverford Col Acad Comp Ctr	VMS
DKHHA	HDC Aarhus	VMS
HUJINIX	Hebrew U Comp Cnt Unix	UNIX BSD 4 2
HBUNOS	Hebrew U Comp Ctr	NOS
HUJIVMS	Hebrew U Comp Ctr	DEC VMS
HUJICS	Hebrew U Computer Sci	UTX 32
HUJIAGRI	Hebrew U Faculty of Agriculture	DEC VMS
HUJIFH	Hebrew U Fritz Haber Molec Dyna Ctr	UNIX BSD 4 2
HUMUS	Hebrew U Jerusalem Comp Sc	UNIX BSD 4 2
HUJINOS2	Hebrew U Jerusalem, Israel	NOS
HUJIMD	Hebrew U Medical School	DEC VMS
BATATA	Hebrew U Molecular Ctr	UNIX BSD 4 2
HUJIPRMA	Hebrew U Mount Scopus Comp Ctr	PRIMOS
HUJIPRMB	Hebrew U Mount Scopus Comp Ctr	PRIMOS
HUJIVM1	Hebrew University	VM/CMS
FINGATE	Helsinki U Tech	UNIX
FINHUTA	Helsinki U Tech	IBM VM/SP R4
FINHUTC	Helsinki U Tech Finland	IBM VM/SP R4
FINHUT	Helsinki Univ of Tech	IBM VM/SP R5
FINHUTCS	Helsinki University of Techn	UNIX 4 3 BSD
FINHUTEE	Helsinki University of Techn	UNIX 4 3 BSD
FINHUTIT	Helsinki University of Techn	UNIX 4 3 BSD
JPNHIROA	Hiroshima Univ	VM/HPO
DDATHD21	Hoch TH Darmstadt	MVS/SP
DDOHRZ11	Hoch U Dortmund	IBM VM/SP R3
DHDIHEP5	Hochenergiephysik	VMS

DHIURZ1	Hochschule Hildesheim Germany	IBM VM/SP R4
HOFSTRA	Hofstra Univ	VMS
HUMAIN	Howard Univ Central Comp	MVS
HSETC	HSETC	VM/SP HPO
HUJIDS	HUJI Dental School	DEC MICROVMS
HUMBER	Humber College	VM/SP
IRMIAS	I Astrofisica Spaziale	VM/SP
IFIIDG	I Document Giurid Firenze	VM/SP
ITOIMGC	I Meteorologia Colonnetti	VM/SP
IRMCRA	I Richerche Aerospaziali	IBM VM/SP
IPVIAN	I.A.N.-CNR, Pava, Italy	VM/SP
IGEICE	I.C.E.-CNR, Genova, Italy	CDC NOS 2 4.2
FRILL52	I.L.L. , Grenoble, France	DEC VMS
FRILL	I.L.L. , Grenoble, France	DEC VMS
FRIMFT11	I.M.F.	VM/SP
FRURBB51	I.N.S.E.R.M.	DEC VMS
FROPT11	I.O.T.A	IBM VM/IS
TRITU	I.T.U	VM/SP R3
FRPGM11	I.U.T. Progem	VM/SP
AWIIAE21	IAEA	IBM MVS/XA 2 1.3
IRMIASI	IASI CNR Roma, Italy	DEC VMS V4 5
ALMCSVM1	IBM Almaden Res Ctr	VM/SP
ALMCSVM2	IBM Almaden Res Ctr	VM/SP
ALMCSVM6	IBM Almaden Res Ctr	VM/SP
ALMCSVS5	IBM Almaden Res Ctr	VM/SP
ALMVMA	IBM Almaden Res Ctr	VM/SP
ALMVMB	IBM Almaden Res Ctr	VM/SP
ALMVMC	IBM Almaden Res Ctr	VM/SP
ALMVMZ	IBM Almaden Res Ctr	VM/SP
IBMLABNN	IBM Canada Labs	
ISRAEARN	IBM Israel SC - Haifa	IBM VM/SP R3
DS0LILOG	IBM LILOG Project Stuttgart	IBM VM/SP R3
ZURLVM1	IBM Research Lab Zurich	IBM VM/SP
EMDCCI11	IBM Scientific Center Madrid	IBM VM/SP R4
JPNTSCVM	IBM Tokyo Research	VM/SP
VNET	IBM VNET Gateway	VM/SP
YKTVMV	IBM Watson Sci Res Ctr	VM/SP
WATSON	IBM Watson Sci Res Ctr	VM/SP
YKTVMT	IBM Watson Sci Res Ctr	VM/SP
YKTVMH	IBM Watson Sci Res Ctr	VM/SP
YKTVMX	IBM Watson Sci Res Ctr	VM/SP
YKTVMZ	IBM Watson Sci Res Ctr	VM/SP
TJWATSON	IBM Watson Sci Res Ctr	VM/SP
YKTVMH2	IBM Watson Sci Res Ctr Yorktwn	VM/SP
DHDIBM1	IBM Wissenschaftliches Zentrum	VM/SP
DHDIBM1W	IBM WZH & ENC Heidelberg	VM/SP
FRIBCP51	IBMC, Strasbourg, France	DEC VMS
DKIBT	IBT	IBM VM/IS VER 1 5
SELIUI51	IDA Linkoping, Sweden	DEC VMS
SELIUIDA	IDA Linkoping, Sweden	DEC VMS
BBRIBM11	IEC, La Hulpe, Belgium	VM/SP HPO R4 2
AWIIEZ11	IEZ Numerischer Rechner, Wien	IBM VM/SP R4
DHVIFW1	IFW, Univ Hannover, Germany	IBM VM/SP R5
IITVAX	Illinois Inst Tech/ACC	VMS
FRINA11	INA-PG	IBM VM/IS
INDST	Indiana State Univ	VM/SP
IUBACS	Indiana U Bloomington ACS	VMS
IUP	Indiana U of Penn	HONEYWELL CP-6 C00
IUBVM	Indiana Univ Bloomington VM	VM/XA SF RELEASE 2
IUCF	Indiana Univ Cyclotron Facil	VMS
IUBUS	Indiana Univ Sch of Business	VM/SP
INSTEPS	Indiana Univ Stwde Teah Elec Prod Sys	VM/SP
INDYVAX	Indiana/Purdue U	VMS
INDYCMS	Indiana/Purdue U	VM/SP
INDYMED	Indiana/Purdue U	VM/SP
IUIS	Indiana/Purdue U	MVS/XA
FRINED51	INED	DEC VMS
IRMEMU	INFN - EMU, Roma, Italy	IBM VM/SP R4
IPIVAXIN	INFN - Pisa	DEC VMS
IPIINFN	INFN Pisa	IBM VM/SP R4

IRMLNF	INFN/LNF	DEC VMS 4 4
ITIVAX	Information Technology Inst	VMS
ILNPL	INPL, Israel	DEC VMS
FRINRA11	INRA - CTIG	IBM VM/SP R4
FRINRA72	INRA - CTIS	BULL MULTICS
FRIRTS71	INRETS	BULL MULTICS
FREIBA51	INSEAD	DEC VMS
FRCCRM51	INSERM, Villejuif, France	DEC VMS
FRIAP51	Inst d'Astrophysique Paris	VMS
PTIFM	Inst de Fisica e Matematica	DEC VMS
IMISIAM	Inst Fisica Cosmica Milano	VM/SP
IASSNS	Inst for Advan Study	VMS
IASSUN	Inst for Advan Study	UNIX BSD
DBNMEB1	Inst fuer Med Statistik / Med Einrichtunge	IBM VM/SP R5
AWIIMC11	Inst Med Computwiss Uni Wien	IBM VM/SP HPO R4 2
IRMISS	Instit Superiore di Sanita	VM/SP
EBRIEC01	Institut d'Estudis Catalans	38 CPF
DHDIHEP1	Institut fuer Hochenergiephysi	IBM VM/SP R4
FRILL51	Institut Laue-Langevin	VMS
FRPSTR01	Institut Pasteur	AOS/VS
FRINT51	INT	VMS
FRCPN11	IN2P3 Ctr de Calcul	VM/SP
IONAACAD	Iona College Comp Ctr	VM/SP
IONA	Iona College Music Sys	VM/SP
ALISUVAX	Iowa S U Ames Lab Dept Energy	VMS
ISUMVS	Iowa State U Comp Ctr	MVS/SP
ISUCARD	Iowa State U Ctr. Agricul. & Rural Dev	VM/SP
ISUEVAX	Iowa State U Eng. VAX Cluster	VMS
ISUVAX	Iowa State VAX Cluster	VMS
DMZNAT51	IPH KCH KPH Uni Mainz, Germany	DEC VMS 4 6
DGAIPP5N	IPP (MPI f. Plasmaphysik)	VMS
IRIS	IRIS	UNIX
IRUCCVAX	IRUCCVAX	VMS
FRISIO11	ISIO - MIAGE	VM/IS
IRMISRDS	ISRDS CNR Roma, Italy	IBM VM/SP R5
TRIUVM11	Istanbul Univ	IBM VM/SP R3
ITHACA	Ithaca College	VMS
ICUNIX	Ithaca College	ULTRIX
FRIUTO11	IUT Orsay	IBM VM
JAXLAB	Jackson Lab	UNIX BSD
JMUVAX1	James Madison Univ VAX1	VMS
JPNJAERI	Japan Atomic Energy Res Inst	VM/SP
JCSVAX1	Jersey City St Co	VMS
ILJCT	Jerusalem Col Tech	DEC VMS
JHUNIX	JHU HCF	UNIX
JHUVM	JHU HCF	VM/SP
JHUVMS	JHU HCF	VMS
JHHMVS	JHU HCF	MVS/XA
JHHVM	JHU Hosp Info Sys Dept	VM/SP
JHUHYG2	JHU School of Public Health	ULTRIX
JNETDEMO	JNETDEMO, RAI, Netherlands	VMS 4 6
ALIJKU21	Johannes Kepler U Linz	IBM MVS/SP 1 3.8
JCUVAX	John Carroll Univ	VMS
JCVAXA	John Carroll Univ	VMS
JVNCC	John Von Neumann Ctr	VMS
JVNCD	John Von Neumann Ctr	VMS
JVNC	John Von Neumann Ctr	VMS
JHUHYG	Johns Hopkins U	VM/SP
JHUP	Johns Hopkins U High En Phys	VMS
JHUIGF	Johns Hopkins Univ - IGF	VMS
APLVM	Johns Hopkins Univ App Phys Lab	VM/SP
JILA	Joint Inst for Lab Astrophysics	VMS
FINJYU	Jyvaskyla Univ , Finland	DEC VMS 4 4
JPNKIT	Kanazawa Inst. of Tech.	VM/SP
KSUVAX1	Kansas St U Comp Sci Dept	UNIX BSD
KSUVM	Kansas State U CC	VM/SP
HRDKSW5	Kapteijn Sterrenwacht Roden	VMS 4 3
BLEKUL11	Kath U Leuven	VM/SP R4
BLEKUL60	Kath Univ Leuven	UNIX
BLEKUL21	Kath. Univ Leuven, Belgium	MVS/XA 2 2.0

BLEKUL12	Kath. Univ Leuven, Belgium	VM/SP R4
BLEKUL10	Katholieke U Leuven Mech Eng	VM/SP R3 1
HNYKUN55	Katholieke U Nijmegen	VMS
HEARN	Katholieke U Nijmegen	VM/SP R5
HNYKUN11	Katholieke U Nijmegen	VM/SP HPO 4 2
HNYKUN22	Katholieke U Nijmegen	MVS/SP 1 3 -TSO/E-
HNYKUN51	Katholieke U Nijmegen	VMS
HNYKUN53	Katholieke U Nijmegen	VMS 4 1
HTIKUB5	Katholieke Uni Brabant	VMS 4
HNYKUN52	Katholieke Universiteit Nijmegen	VMS
JPNKEIO	Keio Univ	OS IV/F4 MSP
JPNKEKVX	KEK Network	VMS
JPNKEKTR	KEK TRISTAN	OS IV/F4 MSP
KENTASHT	Kent S U Ashtabula	VMS
KENTELIV	Kent S U East Liverpool	VMS
KENTGEAU	Kent S U Geauga	VMS
KENTVM	Kent S U Info Services	VM/SP
KENTVMS	Kent S U Info Services	VMS
KENTGOLD	Kent S U Info Services	VMS
KENTSALM	Kent S U Salem	VMS
KENTSTAR	Kent S U Stark	VMS
KENTTRUM	Kent S U Trumbull	VMS
KENTTUSC	Kent S U Tuscarawas Cmpus	VMS
DJUKFA11	Kernforsch Juelich	IBM VM/SP HPO R4 2
DJUKFA21	Kernforsch Juelich	IBM MVS/XA
DKAKFK3	Kernforsch Karlsruhe	MVS/SP
DJUKFA53	Kernforschungsanlage Juelich G	VMS
HGRRUG51	Kernfysisch Versn Inst	VMS 4 2
DJUKFA54	KFA Juelich - IFF	VMS
DJUKFA52	KFA Juelich - IPP	VMS
DKAKFK11	KFK Karlsruhe	IBM VM/SP
DB0ZIB21	Konrad Zuse Zentrum Infor	IBM MVS/SP 1 3.4
JPNKEKVM	Kou Enerugi Ken, Tsukuba Japan	VM/SP
SEKTH	KTH	UNIX BSD4 3
BLEKUL13	KUL CME	VM/SP R3
JPNKUHEL	Kyoto U HEPL	OS IV/F4 MSP
JPNKUDPC	Kyoto Univ	OS IV.F4 MSP
JPNKYOTO	Kyoto Univ Dept Info Sci	VM/SP
JPNKISCT	Kyushu Institute of Tech	VM/HPO
JPNKISCI	Kyushu Institute of Tech - Iizuka	VM/HPO
JPNCCKU	Kyushu Univ	OSR/F4 MSP
FRSOL11	L.P.S.O., Orsay, France	IBM VM/SP
FRLAAS61	LAAS Toulouse France	UNIX
LNCC	Lab Nat'l Comp Cientificia	VM/SP
FRUPS51	Lab physique des solides	VAX VMS
FRPOLY52	Labo Physique Nucl Haute Eng	VMS
LAFAYETT	Lafayette College	UNIX
LAKEHEAD	Lakehead U	UNIX
LUSUN	Lakehead U	SUN UNIX
LUVMS	Lakehead U	MICROVMS 4 5
FRLAL51	LAL, Orsay, France	DEC VMS 4 5
HWALHW5	Landbouwhogeschool Wageningen	VMS 4 3
HWALHW50	Landbouwuniv Wageningen	VMS 4 3
FRLAPP51	LAPP, Annecy, France	DEC VMS
FRLASM51	LAS Marseille France	DEC VMS
FRLASH51	LASH-ENTPE	DEC VMS
LAUVAX01	Laurentian University	VMS
LAUCOSC	Laurentian University	VMS
LAUADMIN	Laurentian University	VMS
LAVALVM1	Laval U	VM/SP
LAWRENCE	Lawrence Univ	VMS
SELDC51	LDC Lund, Sweden	DEC VMS
SELDC52	LDC Lund, Sweden	DEC VMS
LEMOYNE	Le Moyne College	VMS
LEHICDC1	Lehigh Univ CC - Cyber 850	NOS
LEHICIM1	Lehigh Univ CIM Lab VM1	VM/SP
LEHIIBM1	Lehigh Univ Comp Ctr - IBM4381	VM/SP
LEHIGH	Lehigh Univ Comp Ctr - Ntwk Server	MUSIC/SP
LCVAX	Lehman Col Acad Comp Ctr	VMS
DM0LRZ01	Leibniz Rechenzentrum Muenchen	CDC NOS 2 5

LCLARK	Lewis & Clark College	BERKELEY UNIX 4.3
SELIUC51	LIDAC Linkoping, Sweden	DEC VMS
DHHLILOG	LILOG-R, Uni Hamburg, Germany	IBM VM/SP R4
FRLIM51	LIMSI-CNRS, Orsay, France	DEC VMS
FRLMCP61	LMCP	SUNOS 3 4
FRFLU51	LMFA	DEC VMS
LIUVAX	Long Island Univ	VMS
LAMPF	Los Alamos Nat'l Lab	VMS
LSUENG	Louisiana St U Coll Eng	NOS
LSUMVS	Louisiana St U Comp Ctr	MVS/SP
LSUVM	Louisiana St U Comp Ctr	VM/SP
LSUVAX	Louisiana St U Comp Ctr	VMS
LSUCHE	Louisiana State Univ Chem Eng VM	VM/SP
LOYVAX	Loyola College, MD	VMS
LUCCPUA	Loyola U of Chicago	MVS/SP
FRLRI61	LRI-Orsay	SUN OS 3 4
NNOMED	LSU Med Ctr - New Orleans	MVS/XA
NSHMED	LSU Med Ctr - Shreveport	MVS/XA
BDILUC11	LUC, Diepenbeek	VM/SP
IRMLUISS	LUISS Roma	IBM VM/SP R3 1
FRLURE51	LURE	VMS
LBL	Lwrce Berkly Lab Comp Serv	VMS
LEPICS	L3, CERN, Geneva, Switzerland	IBM VM/SP HPO 4 2
FRMNHN11	M.N.H.M	IBM VM-IS
MACALSTR	Macalester College	VMS
MCCVM1	Macomb Comm Co	VM/SP
FARMNTON	Maine - Farmington Comp Ctr	VM/SP
MANVAX	Manhattan Coll	VMS
MARICOPA	Maricopa Cty Comm Coll Dist	VMS
MARIST	Marist Col	VM/SP
MARISTC	Marist Col	MUSIC
MARISTA	Marist Col	MUSIC
MARISTB	Marist Col	MUSIC
MARFSHVM	Marist Col	VM/SP
MARISTF	Marist Col	MUSIC
MARMVS	Marist Col	MVS/XA
MARVMXA	Marist Col	VM/XA/SP
MUCSD	Marquette Univ	VMS
MUVMS1	Marshall U Comp Ctr	VMS
MITFBNML	Mass Inst of Tech FB Nat'l Magnet Lab	VMS
MITVMA	Mass Inst of Tech Info Sys	VM/SP
MITRLEVM	Mass Inst of Tech Res Lab Elec	VM/SP
MITLNS	Mass Inst of Tech.	VMS
SLOAN	Mass Inst Tech Sloan Sch of Mgmt	VM/SP
DK0UMI1	Mathem Institut Univ Koein	IBM VM/SP R4
DM0MPI11	Max Planck I Physik Astrophysi	IBM VM/SP R4 1
DGAMPE5D	Max Planck Inst Extraterr Physik	VMS
HNYMPI51	Max Planck Inst Nijmegen	VMS
DM0MPF11	Max Planck Inst Psych Forsch	IBM VM/SP R3 1
HNYMPI52	Max Planck Inst., Nijmegen, NL	VMS 4 3
DGAIPP1S	Max-Planck-Institut fuer Plasm	IBM VM/SP R5
MCGILLB	McGill U	MUSIC
MCGILLC	McGill U	MUSIC
MCGILLA	McGill U Comp Centre	MUSIC
MCGILL2	McGill U Comp Centre	VM/HPO
MCGILL1	McGill U Comp Ctr	VM/SP
MCGILLM	McGill U MUSIC Prod Group	MUSIC
MCGILL3	McGill U MUSIC Prod Group	VM/SP
MCGILLVS	McGill Univ CC	MVS/SP
MUSOCS	McGill Univ Comp Sci	UNIX
MCMASTER	McMaster U CIS	VMS
MCMVM1	McMaster U Inf Proc Svcs	VM
TANDEM	McMaster Univ	VMS
MCOIARC	Med Col Ohio Img Anal Res Ctr	VMS
MUSC	Med U S Carolina - csx/irm	VMS
MCO	Medical College of Ohio	VM/SP
MEDCOLWI	Medical College of Wisconsin	VMS
MUN	Memorial U. of NF	VMS
MERIT	Merit Comp Net	VM/SP
MIAMIU	Miami U Academic Comp Service	VM/SP

MIAVX2	Miami Univ Hamilton Campus VAX	VMS
MIAVX3	Miami Univ Middletown Campus VAX	VMS
MIAVX1	Miami Univ Oxford Campus VAX	VMS
MSU	Mich State Univ. Computer Lab	VM/SP
MSUEGR	Mich State Univ. Engineering	VMS
MTUVAXC	Michigan Tech Univ Comp Sci Res VAX	UNIX
MTUVAXB	Michigan Tech Univ Computer Sci	UNIX
MTUVAXA	Michigan Tech Univ Ctr for Exper Comp	VMS
MTUS5	Michigan Tech Univ Sys 5	VM/SP/HPO
TRMETU	Middle East Tech Uni Ankara	MCP
MIDD	Middlebury College	VMS
MILLERSV	Millersville Univ of PA	VM
TWNMOE10	Ministry of Ed Taiwan	VM/SP HPO
TWNMOE20	Ministry of Ed Taiwan	VM/SP
MSSTATE	Mississippi State Univ CC 1100	OS1100
MITWCCF	MIT - Whitaker College Health Sci, Tech &	VMSt
MITVMC	MIT Admin VM/CMS	VM/SP/HPO
MITVMD	MIT Admin VM/CMS	VM/SP
MITVBUD	MIT Budget, Actng, & Sponsos Programs	VMS
MITWIBR	MIT Whitehead Institit for Biomed Res	VMS
MITBATES	MIT Wm. Bates Linear Accel Lab	VMS
MTSUNIX1	Montana State Univ	ULTRIX
TECMTYVM	Monterrey Inst of Tech	VM/SP
TECMTYSB	Monterrey Inst of Tech	VM/SP
VMTECMEX	Monterrey Instit of Tech	VM/SP
VMTECQRO	Monterrey Instit of Tech Queretaro	VM/SP
MONTCOLA	Montgomery Coll	VM/SP
MONTCOLB	Montgomery Coll	VM/SP
MONTCOLC	Montgomery Coll	MUSIC/SP/VM
MTAM	Mount Allison U	MUSIC
MTA	Mount Allison U Comp Ctr	VM/SP RELEASE 3
DS0MPA52	MPA Stuttgart, Germany	DEC VMS 4 7
DM0MPB51	MPI Biochemie Muenchen	DEC VMS 4 6
DTUMPI51	MPI Biologie Tuebingen	DEC VAX VMS 4 7
DMZMPI5P	MPI Chemie	VMS
DHHMPI5D	MPI Fuer Meteorologie Hamburg	VMS
DM0MPI12	MPI fuer Physik, Muenchen	IBM VM/SP R5 0
DM0MPI53	MPI fuer Physik, Muenchen	DEC VMS 4 6
DHDMPI50	MPI Kernphysik Heidelberg	DEC VMS 4 7
DHDMPI5	MPI Kernphysik Heidelberg	DEC VMS 4 7
DHDMPI5U	MPI Kernphysik Heidelberg	DEC VMS 4 6
DHDMPI5V	MPI Kernphysik Heidelberg	DEC VMS 4 7
DHDMPI5H	MPI Kernphysik Heidelberg	DEC VMS 4 7
DHDMPI5D	MPI Kernphysik Heidelberg	DEC MICROVMS 4 5
DHDMPI52	MPI Kernphysik Heidelberg	DEC VMS 4 7
DGAIPP5D	MPI Plasmaphysik Garching	DEC VMS 4 5
DS0MPI11	MPI Stuttgart, Germany	IBM VM/SP R5
MSUCEM	MSU Dept. Chemistry	VMS
MSUKBS	MSU KBS	VMS
MSUNSCL	MSU NSCL	VMS
MSUPA	MSU Physics Dept	VMS
MSVU	Mt St Vincent U	VMS
MSRCVAX	Mt. Sinai Sch of Med Res Comp of CUNY	VMS
NCSUNE	N Caro S U Dept of Nucl Eng	VMS
NIU	N Ill U	MVS
NIUENG	N Ill U	VM/SP
UMDNJVM1	N J Univ. Med & Dent	VM/SP
CANADA01	N.A.C.	VM/SP
JPNNUHEP	Nagoya U HEPL	OS IV/F4 MSP
JPNNUCBA	Nagoya Univ of Commerce	VM/SP
NTIVAX	Nanyang Technological Inst	VMS
JPNCUN10	Nanzan Univ	VM/SP
JPNCUN20	Nanzan Univ	VM/SP
NASAGISS	NASA Goddard Inst Space Stud	VM/SP
IAFBIT	NASA GSFC Image Analysis Fac	VMS
SCFMVS	NASA Space & Earth Sci CC	MVS/SP
SCFVM	NASA Space & Earth Sci CC	VM/HPO
VPFMVS	NASA Space & Earth Sci CC	MVS/SP
VPFVM	NASA Space & Earth Sci CC	VM/SP
AOVAX1	Nat'l A & I Ctr - Arecibo Observ	VMS

NAS	Nat'l Acad of Sci PC/Netwrk	PC DOS
NASVM	Nat'l Acad of Sci VM/SP	VM/SP
TWNCTUCS	Nat'l Chiao-Tung Univ	VMS
NCARIO	Nat'l Ctr for Atmosph Res	VM/SP HPO
NIEHS	Nat'l Instit of Environ Health Sci	VMS
NIEHSC	Nat'l Instit of Environ Health Sci	VMS
NIEHSD	Nat'l Instit of Environ Health Sci	VMS
NRAO	Nat'l Radio Astronomy Observ.	VMS
TWNCTU01	National Chia-Tung Univ	VMS
NIHCUDEC	National Institutes of Health (DEC-10)	TOPS-10
NIHCU	National Institutes of Health (IBM 370)	MVS/XA
NIHCULSU	National Institutes of Health (LSU)	VMS
NIHCUSV1	National Institutes of Health (Server 1)	VM/SP
NIHCUTST	National Institutes of Health (Test/Dev)	MVS/XA
NIHDCRT	National Institutes of Health DCRT	3PLUS
NIHKLMB	National Institutes of Health, NIDDK/LMB	VMS
TSSNRC00	National Res Council	TSS/370
NRCNET	National Research Council	VAX/VMS
NRCCAD	National Research Council	VAX/VMS
MVSNRC00	National Research Council	MVS/XA
ICNUCEVM	National U Comp Ctr - Pisa	VM/SP
ICNUCEVS	National U Comp Ctr - Pisa	IBM MVS
NUSVM	National Univ of Singapore	VM HPO 4.2
NUSEEV	National Univ of Singapore	VMS
NUSDISCS	National Univ of Singapore	VMS
NUS3090	National Univ of Singapore	VM HPO 4.2
ILNCRD	Natl Cncl Res Dev MSD	DEC VMS
ILNITE	Natl Inst for Test and Eval	DEC VMS
NRCVM01	Natl Res Cncl Canada Comp Ctr	VM/SP
NAVPGS	Naval Postgrad Sch	VM/SP
GUNBRF	NBRF/ Georgetown Univ Med Ctr	VMS
CMEAMRF	NBS Adv. Mfg. Res Fac.	VMS
NBS	NBS Consolidated Scie Comp Sys	NOS
NBSENH	NBS Ex. Networks Host	VMS
NBSMICF	NBS Mgmt. Info. Comp. Fac.	VM/SP
MSMFVM	NBS Molecular Structure Model Fac	VM
NCSUPHYS	NC State Univ	VMS
NCSUMAEV	NCSI Mech & Aerospace Eng	VMS
NCSUMAE	NCSU Mech & Aerospace Eng	VM/SP
NCSUCE	NCSU Civil Eng	VMS
NCSUVAX	NCSU Computing Center	VMS
NCSUVM	NCSU Computing Center	VM/SP4
NCSUECE	NCSU Elec & Comp Eng	VMS
NCSUIE	NCSU Industrial Eng	VMS
NCSUMTE	NCSU Materials Eng	VMS
NDSUVM1	ND Higher Ed Computer Net	VM/SP
NDSUVAX	ND Higher Ed Computer Net	UNIX
NEVIS	Nevis Lab, Columbia U	VMS
NJECNVM	New Jersey Edu Computer Net	VM/SP
NJECNVS	New Jersey Edu Computer Net	MVS/SP
NJECNVM1	New Jersey Edu Computer Net	VM/SP
NJECNVM2	New Jersey Edu Computer Net	VM/XA
ORION	New Jersey Inst of Tech Conf Ctr	VM/SP
MERCURY	New Jersey Inst of Tech Conf Ctr	VM/SP
NMSUMVS1	New Mexico St U Comp Ctr	MVS/SP
NMSUVM1	New Mexico St U Comp Ctr	VM/SP
NMSU	New Mexico St U Comp Ctr	SUNOS
NYSPI	New York Psych Inst	VM/SP
NYUACF	New York U Academic Comp	VMS
NYUACF7	New York U Academic Comp	VMS
NYUACF1	New York U Academic Comp	VMS
NYUACF6	New York U Academic Comp	VMS
NYUCIMSA	New York U CIMS	VM/SP
NYUCCVM	New York U Comp Ctr	VM/SP
NYUCMCL1	New York U Courant Math & Comp. Lab	VMS
NYUMED	New York U Med Ctr	VMS
DKNBI51	Niels Bohr Institute, Denmark	DEC VMS 4 6
JPNNIHOC	Nihon U Col of Commerce	VM/SP
UMDNJPW1	NJ Univ Med & Dent	VSE/SP
UMDNJVM2	NJ Univ of Med & Dent	VM/SP

NOFDB	NLH-Aas, Norway	VM/SP R5
NCSUMEAS	North Carolina St U	VMS
NCSUSTAT	North Carolina St U	VMS
NCSUCHE	North Carolina St U Chem Engr	VMS
NCSUMATH	North Carolina State U	VM/SP4
NCSUADM	North Carolina State Univ Admin Comp Ctr	MVS/SP
NEMOVM	Northeast Missouri State Univ	VM/SP
NEMOMUS	Northeast Missouri State Univ	VM/SP
NUHUB	Northeastern U Comptng Res Ctr	VMS
NEUVMS	Northeastern U Dept Physics	VMS
NAUVM	Northern Arizona Univ	VM/SP HPO
NAUVAX	Northern Arizona Univ	VMS
NUACC	Northwestern Univ Vogelback Comp Ctr	VMS
NUCYB	Northwestern Univ Vogelback Comp Ctr	NOS
NRCBSP	NRC Bilogical Sciences Protein	VAX/VMS
NRCCIT	NRC Cd	
NRCHEM	NRC Chemistry Division	VAX/VMS
NRCDRA	NRC Dominion Astrophysical Obs	VAX/VMS
NRCDAO	NRC Dominion Radio Astro Obs	VAX/VMS
NRCHEP	NRC High Energy Physics	VAX/VMS
NRCHYD	NRC Hydraulics Lab	VAX/VMS
NRCIDO	NRC Industry Development Off	VAX/VMS
NRCPHY	NRC Physics Division	VAX/VMS
NSF	NSF	UNIX
CRNLAES	NYSAES	PRIMOS
CERAMICS	NYSC of Ceramics at Alfred Univ	VMS
NYBVX1	NYU Graduate Business School	VMS
FROCF51	O.P.G.C, Clermont-Ferrand, FR	DEC VMS
ORNLSTC	Oak Ridge Nat'l Lab	VMS
CESARVAX	Oak Ridge Natl Lab Ctr Engg Sys Adv Res	VMS
OCC	Oakland Comm Co	VM
OBERLIN	Oberlin College	VMS
FRONI51	Observatoire - Nice	VMS
FROBES51	Observatoire de Besancon, Fran	DEC VMS
FROBOR51	Observatoire de Boreaux	DEC VMS
FROMRS51	Observatoire de Marseille, Fr	DEC VMS
FRMEU51	Observatoire de Paris, Meudon	VMS
FRNEAB51	OCDE	DEC VMS
OCLCRSUN	OCLC	UNIX 4.2 BSD
OHSTVMB	Ohio State U CAD/CAM	VM/SP
OHSTCH	Ohio State U Chem Dept VAX	VMS
OHSTHR	Ohio State U Ctr for Human Resource Res	VMS
OHSTMVSA	Ohio State U IRCC	MVS/SP
OHSTVMA	Ohio State U IRCC	VM/SP
OHSTPY	Ohio State U Physics Dept.	VMS
OHSTPHRM	Ohio State Univ Coll of Pharm	VM/SP
OUACCVMB	Ohio Univ Athens	VM/SP
OUACCVMA	Ohio Univ, Athens	VM/SP
OWUCOMCN	Ohio Wesleyan Univ	VMS
JPNONRI	Okazaki Nat'l Res Instit	VMS
OSUCC	Oklahoma State Univ CC	MVS/XA
UCCVMS	Oklahoma State Univ CC	VMS
ODUVM	Old Dominion U	VM/SP
UTOPVM	OPAL, CERN, Geneva,Switzerland	IBM VM/SP HPO 4 2
HHEOUH51	Open Universiteit Heerlen	VMS 4 4
HHEOUH54	Open Universiteit Heerlen	VMS 4 4
HHEOUH53	Open Universiteit Heerlen	VMS 4 4
HHEOUH52	Open Universiteit Heerlen	VMS 4 4
DBNUOR1	Operations Research Bonn	IBM VM/SP R4
ORSTATE	Oregon State UCS	NOS 2.5.1-678
ORSTVM	Oregon State Univ.	VM
JPNDENTU	Osaka Electro-Comm Univ	UNIS 4.2 BSD
JPNOIT10	Osaka Inst of Tech	VM/SP
JPNOSKFM	Osaka U HEPL	OS IV/F4 MSP
JPNOSAKA	Osaka Univ Ed Ctr	VM/SP
FINOU	Oulu Univ	IBM VM/SP HPO R3 4
FINOUC	Oulu University, Finland	MICROVMS 4 6
FRPQT51	P.Q.T., Toulouse, France	DEC VMS
PACEVM	Pace Univ Pleasantville-Briarcliff Camp	VM/SP
PLU	Pacific Lutheran Univ	VMS

IPDUNIV	Padova U Comp Ctr	VM/SP RELEASE 5
PANAM2	Pan American Univ	VMS
PANAM1	Pan American Univ	VMS
PANAM	Pan American Univ	VMS
PSUVALM	Penn S U Comp Sci VLSI Dev	UNIX BSD
PSUARCH	Penn St U Arch Comp Lab	VMS
PSUACL	Penn St U Arch Computer Lab	VMS
PSU2020	Penn St U Engr Comp Lab	TOPS-20
PSUECLC	Penn St U Engr Comp Lab	VMS
PSUECLA	Penn St U Engr Comp Lab	VMS
PSUECLB	Penn St U Engr Comp Lab	VMS
PSUHCX	Penn St U Engr Comp Lab	UNIX
PSUCEMD	Penn St U Engr Comp Lab	VMS
PSUMEV	Penn St U Mech. Engr.	VMS
PSUCHEM	Penn State - Chemistry	VM/SP
PSUARLB	Penn State Applied Res Lab	VMS
PSUARLC	Penn State Applied Res Lab	VMS
PSUARLA	Penn State Applied Res Lab	VMS
PSULEPSI	Penn State Elmnt. Particle Lab	VMS
PSULEPSR	Penn State Elmnt. Particle Lab	VMS
PSULEPSA	Penn State Elmnt. Particle Lab	VMS
PSULEPSH	Penn State Elmnt. Particle Lab	VMS
PSUECL2	Penn State Engin. Computer Lab	VM/SP
PSUVAXG	Penn State U	UNIX BSD
PSUVAXS	Penn State U	UNIX BSD
PSUDG1	Penn State U	AOS/VS
PSUPENA	Penn State U Agric Ext Net	VMS
PSUPENB	Penn State U Agric Ext Net	VMS
PSUALT	Penn State U Altoona	VMS
PSUVMXA	Penn State U CAC	VM/XA SP1
PSUSUN01	Penn State U CAC	SUN OS 4.0
PSUED1	Penn State U Coll of Ed	VMS
PSUCES1	Penn State U Comm. Ed Sys	VMS
PSUCES3	Penn State U Comm. Ed Sys	VMS
PSUVM	Penn State U Comp Ctr	VM/XA
PSUCURT	Penn State U CompSci	ACIS UNIX 4.3
PSUDEC10	Penn State U Eng Comp Lab	TOPS-10
PSUNUCE	Penn State U Eng. Dept.	VM/SP
PSUHMC	Penn State U Hershey Med Ctr. Res. Cmptng	VM/SP
PSUHMED	Penn State U Hershey Med Ctr. Res. Cmptng	VMS
PSUMVS	Penn State University	MVS/XA
PSUPDP1	Penn State University	UNIX R6
PSUVALP	Penn SU Comp Sci VLSI Dev	UNIX BSD
PSUVAX1	Pennsylvania State U	UNIX BSD
PEPVAX	Pepperdine Univ Acad Comp VAX	ULTRIX
PEPPCDRM	Pepperdine Univ Admin Cmptng IBM MVS	MVS/XA
CPWPSCA	Pgh Supercomputer Ctr	VMS
CPWPSCB	Pgh Supercomputer Ctr	VMS
DMRHRZ11	Philipps-Universitaet Marburg	IBM VM/SP R4 0
DHDPHY5	Physikalisches Institut	VMS
DBNPIB5	Physikalisches Institut der U Bonn	DEC VMS 4 6
ITOPOLI	Politecnico di Torino	VMS
ITOPOLI3	Politecnico di Torino	VMS
ITOPOLI4	Politecnico di Torino	VMS
ITOPOLI1	Politecnico di Torino	VMS
ITOPOLI2	Politecnico di Torino	VMS
IMIPOLI	Politecnico Milano	IBM VM/SP R4 1
POLYTECH	Polytechnic U Comp Ctr	VM/SP
POLYGRAF	Polytechnic U Comp Ctr	VM/SP
POMONA	Pomona Col Comp Ctr	VM/SP
PCMATH	Pomona Col Mathematics Dept	VMS
PSUORVM	Portland State Univ CC	VM/SP
PRATT	Pratt Institute Comp Ctr	PRIMOS
PPLCATS	Princeton Univ PLasma Phys. Lab	VM/SP
PUCC	Princeton University	VM/SP
PUFORBES	Princeton University	VM/SP
PUNFS	Princeton University	VM/SP
PU1879	Princeton University	VM/SP
PUMIS	Princeton University	VM/SP
DHIAVM	PSU Dairy Herd Improv. Assn.	VM/SP

PSULIAS	PSU Library Info Access Sys	HONEYWELL CP-6
PSUADMIN	PSU Mgmt. Srvs	MVS/XA
PURCHE	Purdue U Chem Engr Dept	VM/SP
PURCCVM	Purdue U Comp Ctr	VM/SP
PURVLSI	Purdue U EE VLSI Lab	VM/SP
QUCDNEE1	Queen's Electrical Engineering	VMS
QUCDNTRI	Queen's Electrical Engineering	VMS
QUCDNEE	Queen's Electrical Engineering	VMS
QCVAXA	Queens College CUNY	VMS
QCVAXB	Queens College CUNY	VMS
QCVAXC	Queens College CUNY	VMS
QCUNIX	Queens College CUNY	ULTRIX
QCVAX	Queens College CUNY	VMS
QUCDNCMC	Queens U Can Microelec Corp	VMS
QUCDNAST	Queens Univ Astronomy	VMS
QUCIS	Queens University	UNIX
QUCDN	Queens University	VM/SP
QUCDNSUR	Queens University Surgery	VMS
AWIRAP01	RA-Physik	VMS 4 5 LAVC
AWIRAP02	RA-Physik	VMS 4 5 LAVC
DACTH51	Rechenzentrum der RWTH Aachen	VMS
DKAUNI11	Rechenzentrum U Karlsruhe	IBM VM/SP R4
DKAUNI46	Rechenzentrum U Karlsruhe	SIEMENS BS3000 MSP 20
DKAUNI48	Rechenzentrum U Karlsruhe	SIEMENS BS3000 MSP 20
REED	Reed College	BERKELEY UNIX
RCN	Regents Computer Network	NOS
IRTCORK	Regional Tech College Cork	VM/IS
GREARN	Research Ctr of Crete	VM/SP
RLG	Research Libraries Grp	MVS/SP
RHODES	Rhodes College CC	VMS
DKLUNI01	RHRK Kaiserslautern	SIEMENS BS3000 MSP
DKLUNI85	RHRK Kaiserslautern, Germany	SIEMENS BS2000
DKLUNI86	RHRK Kaiserslautern, Germany	SIEMENS BS2000
DBNUZR1A	RHRZ Uni Bonn, Germany	IBM VM/SP HPO R4.2
RICECSVM	Rice U Comp Sci Dept.	VM/SP
RICE	Rice Univ ICSA	VM/SP
ITORIPTO	Ricerch e Progetti Torino	VM/SP
BGERUG51	Rijks Univ	VMS
HLERUL52	Rijksuniver Leiden Gorl Lab	VMS 4 1
RITVM	RITISC	VM/SP HPO
RITVAXA	Rochester Inst of Tech	VMS
RITVAXB	Rochester Inst of Tech	VMS
RITVAXC	Rochester Inst of Tech	VMS
RITVAXD	Rochester Inst of Tech	VMS
RITVAXN	Rochester Inst of Tech	VMS
RITVAX	Rochester Inst of Tech	VMS
RITVAXO	Rochester Inst of Tech (NTID)	VMS
RITVAXL	Rochester Inst of Tech.	VMS
ROCKVAX	Rockefeller University	UNIX BSD
ROHVM1	Rohm & Haas Co	VM/HPO
RHIT	Rose-Hulman Inst.	VMS
RMC	Royal Military College	CP-6
RPICMPVM	RPI Ctr Mfg Prod	VM/SP
RPICICGD	RPI Graphics Center	VM/SP
RPICICGE	RPI Graphics Center	VM/SP
RPITSMTS	RPI Info Tech Srvs	MTS/XA DIST 5.1C
RPITSGW	RPI Info Tech Srvs	UTX
DHVRRZN0	RRZN, Univ Hannover, Germany	CDC NOS
DHVRRZN1	RRZN, Univ Hannover, Germany	IBM VM/SP R4 0
BANRUC01	RUCA, Antwerpen, Belgium	NOS 2 5
DBORUB01	Ruhr-Univ Bochum	CDC NOS/VE
NORUNIX	RUNIT	ULTRIX 2 0
RUTHEP	Rutgers U High Energy Physics	VMS
DRACO	Rutgers Univ CCIS	VMS
RUTGERS9	Rutgers Univ CCIS MVS	MVS/SP
CANCER	Rutgers Univ CCIS VAX	VMS
ZODIAC	Rutgers Univ CCIS Vax Clust	VMS
RUTVM1	Rutgers Univ CCIS VM1	VM/SP
BIOVAX	Rutgers Univ Molecular Bio Comp Lab	VMS
DACTH01	RWTH Aachen, Germany	CDC NOS 2 4

RYERSON	Ryerson	VM/SP
DWUUNI21	RZ Uni Wuerzburg, Germany	IBM MVS 3 8
YUBGSS21	RZS SR Srbije, Yugoslavia	IBM MVS/SP 1 3.8
SERVAX	S Reg Data Ctr	VMS
SER	S Reg Data Ctr Tamiami Campus	OS 1100
SLUVCA	Saint Louis Univ	VMS
SALK	Salk Instit	VMS
SHSUTHOR	Sam Houston State Univ	VMS
SHSU	Sam Houston State Univ	VMS
SHSUODIN	Sam Houston State Univ	VMS
SAMFORD	Samford Univ	VM/SP
SDSC	San Diego Supercomputer Ctr	VMS
SCU	Santa Clara Univ	VMS
HASARA11	SARA Amsterdam, Netherlands	VM/SP R4
JPNSUT50	Scienc U Tokyo Y J Coll	VM/SP
JPNSUT00	Science U of Tokyo	VM/SP
JPNSUT40	Science U of Tokyo	VM/SP
JPNSUT31	Science U of Tokyo Noda	VMS
JPNSUT10	Science U Tokyo - Japan	VM/SP
JPNSUT20	Science U Tokyo - Japan Kagurazaka	VM/SP
JPNSUT30	Science U Tokyo - Japan, Noda	VM/SP
JPNSUT3A	Science U Tokyo - Japan, Noda	MUSIC
JPNSUT01	Science Univ of Tokyo	VM/SP
JPNICEPP	Science Univ of Tokyo ICEPP	VM/SP
BMLSCK11	SCKCEN Mol Belgium	VM/SP R4
IPISNSVA	Scuola Normale Superiore	DEC VMS 4 3
IPISNSIB	Scuola Normale Superiore	VM/SP
SENECA	Seneca College	VMS
KRSNUCC1	Seoul Nat'l Univ CC	VM/HPO
SETONVM	Seton Hall U CC	VM/SP
SETONMUS	Seton Hall Univ CC	VM/SP
JPNSNU10	Setsunan Univ	VM/SP
JPNSNU20	Setsunan Univ	VM/SP
SHERCOL1	Sheridan College	VMS
JPNSWU10	Showa Women's Univ	VM/SP
IMISIAM3	SIAM IFC, Milano, Italy	IBM VM/SP HPO 4 0
IMISIAM2	SIAM IFC, Milano, Italy	IBM VM/SP HPO 4 0
SFU	Simon Fraser U Comp Svcs	MTS
SFUVM	Simon Fraser U Comp Svcs	VM/SP
ITSSISSA	SISSA, Trieste, Italy	UNIX UTX
SKIDMORE	Skidmore College	VMS
SLACASP	SLAC ASP Experiment	VMS
SLACVM	SLAC Computer Center	VM/SP
SLACESA	SLAC End Station A	VMS
SLACHRS	SLAC High Res Spectrometer	VMS
SLACMAC	SLAC Magnetic Calorimeter	VMS
SLACMKII	SLAC Mark-II Detector	VMS
SLACM2	SLAC Mark-II Detector	VMS
SLACMK3	SLAC Mark-III Detector Exp	VMS
SLACPCR	SLAC PCR	VMS
SLACSLC	SLAC SLC	VMS
SLACSLD	SLAC SLD Detector	VMS
SLACTBF	SLAC TBF	VMS
SLACTWGM	SLAC TCP/Two-Gamma Experiment	VMS
SLACUCSD	SLAC TCP/2-Gamma Expt (UCSD)	VMS
SLACTPCS	SLAC TPC/Two-Gamma Experiment	VMS
SLACPHYS	SLAC TPC/Two-Gamma Experiment	VMS
SMITH	Smith College	VMS
SIVM	Smithsonian Instit	VM/SP
TWNSCU10	Soochow Univ	VM/SP
SDSUVM	South Dakota State Univ	VM/HPO SP
SEMASSU	Southeastern Mass Univ	VMS
SIUCVMB	Southern Illinois U - Carbondale	VM/SP
SIUEVM	Southern Illinois Univ Edwardsvl	VM/SP
SMUVM1	Southern Methodist U ACC	VM/SP
SMSVMA	Southwest Missouri State Univ	VM/SP
SMSVMB	Southwest Missouri State Univ	VM/SP
SMSVAXA	Southwest Missouri State Univ	VMS
SWTEXAS	Southwest Texas State Univ	VMS
SWTNYSSA	Southwest Texas State Univ	VMS

SWTTEGAN	Southwest Texas State Univ	VMS
STSCI	Space Telescope Science Instit	VMS
SLCSL	St. Lawrence College	VM/CMS
STLAWU	St. Lawrence Univ	VM/SP
STMARYS	St. Mary's U	VMS
STMARYTX	St. Mary's Univ of San Antonio	VMS
SMCVAX	St. Michael's Coll	VMS
SPCVXA	St. Peter's Co	VMS
SESTAK	Stacken, KTH Sweden	TOPS-10/7
SSRL750	Stanford Synchrotron Rad Lab	VMS
STANFORD	Stanford University	MVS/XA
SUSOLAR	Stanford University	UNIX
SUWATSON	Stanford University	VM/SP HPO 4.2
OBERON	Stanford University	VM/SP HPO 5.0
MSUS1	State Univ System of Minnesota	VMS
SFAUSTIN	Stephen F. Austin State Univ	CP-6
SITVXB	Stevens Inst Tech	VMS
SITVXC	Stevens Inst Tech	VMS
HASARA5	Stichting Academ Reken Amsterdam	VMS 4
SEQZ11	Stockholm U Comp Ctr	IBM VM/SP R4
SEQZ21	Stockholm U Comp Ctr	IBM MVS/SP 1 3.1
SEQZ51	Stockholm U Comp Ctr	DEC VMS
SESUF51	Stockholm Univ	DEC VMS
QZCOM	Stockholm Univ CC	TOPS-10/7
SEQZ01	Stockholm Univ CC	CDC NOS 2 4.1 LEVEL 642
SEQZ02	Stockholm Univ CC	CDC NOS 2 4.1 LEVEL 642
QZKOM	Stockholm Univ CC	TOPS-10/7
DBNISKP5	Strahlen-Kernphysik Uni Bonn	DEC VMS 4 4
SEGATE	SUNET	UNIX BSD4 3
FRSUN12	SUNIST,	IBM VM/SP
ALBNY1VX	SUNY Albany CC VAX VMS	VMS
UBVMSC	SUNY Bflo CC	VMS
UBVMSD	SUNY Bflo CC	VMS
BINGVAXA	SUNY Binghamton	VMS
BINGVAXB	SUNY Binghamton	VMS
BINGVAXC	SUNY Binghamton	VMS
BINGVMA	SUNY Binghamton	VM/SP
BINGVMB	SUNY Binghamton	VM/SP
SUNYBING	SUNY Binghamton	VM/SP
BINGTJW	SUNY Binghamton Sch of Engr	VM/SP
SUNYBCS	SUNY Buffalo Comp Sci Dept	UNIX BSD
SNYCENVM	SUNY Central Admin CC	VM/SP
SNYDELBA	SUNY Coll of Technol at Delhi	MCP
SNYBROBA	SUNY College at Brockport	MCP
BROCK1P	SUNY College at Brockport - ACS	PRIMOS
SNYBUFBA	SUNY College at Buffalo	MCP 3.6.2
SNYBUFVA	SUNY College at Buffalo	VMS
SNYCANBA	SUNY College at Canton	MCP
SNYCOBBA	SUNY College at Cobleskill	MCP
SNYCORBA	SUNY College at Cortland	MCP
SNYFREBA	SUNY College at Fredonia	MCP
SNYGENBA	SUNY College at Geneseo	MCP
GENESEO	SUNY College at Geneseo	VMS
SNYNEWBA	SUNY College at New Paltz	MCP
SNYOLDBA	SUNY College at Old Westbury	MCP
SNYONEBA	SUNY College at Oneonta	MCP
SNYOSWBA	SUNY College at Oswego	MCP
SNYPLABA	SUNY College at Plattsburgh	MCP
SNYPLADG	SUNY College at Plattsburgh	AOS/VS
SNYPOTBA	SUNY College at Potsdam	MCP
SNYFARBA	SUNY College Farmingdale	MCP
SNYMORBA	SUNY College Morrisville	MCP
ADMBROOK	SUNY Health Science Ctr Brooklyn	VM/SP
SACBROOK	SUNY Health Science Ctr Brooklyn	VM/SP
SNYBKADM	SUNY Health Science Ctr Brooklyn	VM/SP
SNYBKSAC	SUNY Health Science Ctr Brooklyn	VM/SP
SNYALFBA	SUNY of NY College of Tech at Alfred	MCP
SBBIOVM	SUNY Stony Brook Biol Sci Comp	VM/SP
SBCCVM	SUNY Stony Brook Comp Ctr	VM/HPO
SBCCMAIL	SUNY Stony Brook Comp Ctr Mail	VMS

SUNYSBNP	SUNY Stony Brook Physics Dept	VMS
UBVMSA	SUNY/Bflo CC	VMS
UBVM	SUNY/Bflo CC	VM/SP
UBVMSB	SUNY/Bflo CC	VMS
UBVMS	SUNY/Bflo CC	VMS
ALBNYMVS	SUNYA EETR MVS	MVS/JES2
ALBNYVM1	SUNYA EETR VM	VM/HPO
HUTSUR51	SURFnet, Netherlands	VMS 4 6
SWATPRM	Swarthmore College	VMS
SEARN	Sweden EARN	IBM VM/SP R4
SUNSET	Syracuse U	VMS
SUNRISE	Syracuse U	VMS
SUAIS	Syracuse U AIS	MVS
SUCAD1	Syracuse U CAD/CAM	VMS
SUHEP	Syracuse U High Energy Phys	VMS
SUZEUS	Syracuse Univ Comp. Sys.	VM/SP HPO
SUVM	Syracuse University	VM/HPO
SUMVS	Syracuse University	MVS
JPNTAMA0	Tamagawa Univ	VM/SP
FINTUTA	Tampere U Tech	DEC VMS 4 2
FINTUT	Tampere University of Techn	UNIX 4 3 BSD
TAMODP	TAMU ODP	VMS
TAMAGEN	TAMU/AG Eng	VMS
TAMMVS1	TAMU/CSC	MVS/SP
TAMVM1	TAMU/CSC	VM/SP/HPO
TAMENTO	TAMU/ENTO	VMS
TAMGEOP	TAMU/GEOP	VMS
TARLETON	Tarleton State Univ - DPC	NOS
HDETUD2	Tech Hoogeschool Delft	MVS/SP 1 3.4
HDETUD5	Tech Hoogeschool Delft	VMS 4 4
DB0TUI6	Tech U Berlin Infor KBS	UNIX 4 2 BSD
DBSINF6	Tech U Braunschweig Info	ULTRIX
DM0TUI1S	Tech U Informatik, Muenchen	IBM VM/SP R5 06
DDADVS1	Techn Darmstadt Fachber Inform	IBM VM/SP R3
TUNS	Technical Univ of Nova Scotia	VMS
TECHCDC	Technion - CDC	NOS 2.4.3
TECHMVS	Technion - Haifa	MVS/SP
TECHNION	Technion - Haifa	IBM VM/SP HPO 4 2
TECHSEL	Technion Dept Math - Haifa	UNIX
TECHUNIX	Technion Dept of Math	UNIX BSD 4 3
TECHDPD	Technion, Haifa	MVS/JES2
HENTHT5	Technische Hogeschool Twente	VMS 4 2
DB0TUI11	Technische U Berlin	IBM VM/SP
DB0TUM11	Technische U Berlin Maschinen	IBM VM/SP
DB0TUZ01	Technische U Berlin Rechenzentrum	NOS
DB0TUS11	Technische U Berlin Schiffs	IBM VM/SP
ICSATAXA	Tecnopolis CSATA Novus Ortus	IBM MVS/XA
TAUNIVM	Tel Aviv U Comp Ctr	IBM VM/SP HPO R4 2
TAUNOS	Tel Aviv U Comp Ctr	CDC NOS 2 5.3
TAURUS	Tel Aviv U Comp Ctr	UNIX BSD 4 2
TAUENG	Tel Aviv U Eng Sch	DEC VMS 4 2
TAUPHY	Tel Aviv Univ Nuc Phys	DEC VMS 3 7
TAUVE	Tel Aviv University	CDC NOS/VE 1 2.3
TEMPLEVM	Temple U Comp Activity	VM/SP
TMPLSUPR	Temple U Computer Activity	VM/SP
TMPLCIS	Temple U Computer Activity	VMS
TMPLNOS	Temple University Computer Activity	NOS
TNTECH	Tennessee Tech Univ	VMS
TAMCGF	Texas A&M Engineering Graphics	VMS
TAMCBA	Texas A&M U Acad Comp Ctr	VM/SP
TAMBIGRF	Texas A&M U Biochem	VMS
TAMCHEM	Texas A&M U Chemistry Dept	VMS
TAMSTAR	Texas A&M U Comp Srvs Ctr	VMS
TAMVENUS	Texas A&M U Comp Srvs Ctr	VMS
TAMUNIX	Texas A&M U Computing SC	UNIX
TAMLSR	Texas A&M U CS/LSR	VMS
TAMTCSL	Texas A&M U EE-TCSL	VMS
TAMVXEE	Texas A&M U Electrical Engr	VMS
TAMNIL	Texas A&M U Learning Tech Ctr	VMS
TAMMEACA	Texas A&M U ME/CAD	VMS

TAMVXRSC	Texas A&M U MML	VMS
TAMVXOCN	Texas A&M U Oceanography Dept	VMS
TAMPHYS	Texas A&M U Physics Dept	VMS
TAMCOMP	Texas A&M Univ Cyclotron Inst	VMS
TAMSIGMA	Texas A&M Univ ECS	VMS
TAMLMSB	Texas A&M Univ LMSB	VMS
TAMTURBO	Texas A&M Univ TURBO	VMS
TCUAVM	Texas Christian Univ	VM/SP
TCUAMUS	Texas Christian Univ	MUSIC/SP
TCUAVMS	Texas Christian Univ	VMS
TCUBVM	Texas Christian Univ	VM/SP
TTACS1	Texas Tech U Acad Comp Srvs	VMS
TTACS2	Texas Tech U Acad Comp Srvs	VMS
TTUVM1	Texas Tech U Comp Facil	VM/SP
TTUHSCVM	Texas Tech U Health Sci Ctr	VM/HPO
DTUPEV5A	Th Astrophysik Univ Tuebingen	DEC VMS 4 3
HDETUD1	TH Delft, Netherlands	VM/SP
JPNTOHOK	Tohoku Univ	VM/SP
JPNTHKVX	Tohoku Univ	VMS
JPNTIU01	Tokyo Intern'tl Univ	VM/SP
JPNTKUVM	Tokyo Keizai U	VM/SP
TOWSONVX	Towson State Univ	VMS
TOWSON1	Towson State Univ	VMS
TOWSON2	Towson State Univ	VMS
TRANSY	Transylvania Univ	MUSIC/SP
TRENT	Trent University	VMS
TSCVM	Trenton State Co	VM/SP
TUCC	Triangle U Comp Ctr	MVS/SP
TUCCVM	Triangle U Comp Ctr	VM/SP
TUNL	Triangle Univ. Nuclear Lab	VMS
TRINCC	Trinity College	VMS
TRINCC2	Trinity College	VMS
TRINITY	Trinity Univ Computing Ctr	VM/SP
TRIUMFCL	TRIUMF Research	VMS 4 5
TRIUMFRG	TRIUMF Research	VMS 4 5
TRIUMFER	TRIUMF Research - ERICH	VMS 4 5
DB0TUI0	TU Berlin	XEXOX
DB0PTZ1A	TU Berlin	VM/SP
DB0TUI62	TU Berlin Informatik SWT	UNIX 4 3 BSD
DBSTU1	TU Braunschweig, RZ, Germany	IBM VM/SP R4 SSI
DBSNRV0	TU Braynscgweug, NRV-Gateway	XOS
DCZTU1	TU Clausthal	VM/SP
HDETUD53	TU Delft	VMS 4 5
HDETUD52	TU Delft	VMS 4 4
HDETUD51	TU Delft	VMS V4 4
HEITHE5	TU Eindhoven CC, Netherlands	VMS 4 5
HEITUE51	TU Eindhoven CC, Netherlands	VMS 4 5
HEITUE1	TU Eindhoven CC, Netherlands	VM/SP
HEIIPO5	TU Eindhoven IPO, Netherlands	VMS 4 5
DGATUM5P	TU Muenchen Physik	VMS
DB0TUI66	TUB Informatik ISTI	UNIX 4 2 BSD
TUFTS	Tufts U	VMS
TULIPS	Tufts Univ	VMS
TCSVM	Tulane U Comp Svcs - VM	VM/SP
TCSMUSA	Tulane U Comp Svcs Music A	MUSIC
TCSMVS	Tulane U Comp Svcs MVS	MVS/SP
AKRON	U Akron	MVS/XA 2 1.7
AKRONVM	U Akron	VM/SP HPO 5
AKRONVAX	U Akron	ULTRIX
UABCMC	U Alabama B'ham - CMC	VMS
UABTUCC	U Alabama Birmingham	MVS/SP
UABCVSR	U Alabama Birmingham	VM/IS
UA1VM	U Alabama Comp Ctr	VM/SP HPO
UALTAMTS	U Alberta Comp Svcs MTS	MTS
UALTAVM	U Alberta Comp Svcs VM	VM/SP
EMDUAM11	U Autonoma Madrid Ctr Calc	VM/SP
EB0UB012	U Barcelona Ctr Calculo	VM/SP
DBNVB12	U Bonn Chemische Inst	IBM VM/SP R3 1
DBNUAMA1	U Bonn Inst Mathematik	IBM VM/SP R4
DBNRHRZ1	U Bonn Reg Hochschul	IBM VM/SP R5

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DBNRHRZ2  U Bonn Reg Hochschulrechenzent          MVS/SP
UCIPPRO   U CA Irvine, Publ Policy Rsrch          VM/SP
UCSFBCL   U CA San Fran Biochem Lab
UCSFC255  U CA San Fran Clin Lab
UCSFCCB   U CA San Fran Comp Ctr
UCSFCGL   U CA San Fran Comp Grap Lab
UCSFVIVO  U CA San Fran Infect Lab
UCSFMIS   U CA San Fran Med Info Sci
UCSFNMR   U CA San Fran Nuc Mag Reson Lab
UNCAACTC  U Calgary A C.T. Centre                 MULTICS
UCDASVM1  U Calgary Dept Admin Servs              VM/SP
UCBEAR    U Calif Berkeley                        UNIX BSD
UCBDOROT  U Calif Berkeley                        UNIX BSD
UCBERNIE  U Calif Berkeley                        UNIX BSD
UCBEROS   U Calif Berkeley                        UNIX BSD
UCBBACH   U Calif Berkeley                        UNIX BSD
UCBAMBER  U Calif Berkeley                        UNIX BSD
UCBARPA   U Calif Berkeley                        UNIX BSD
UCBDEAN   U Calif Berkeley                        UNIX BSD
UCBDEGAS  U Calif Berkeley                        UNIX BSD
UCBBERYL  U Calif Berkeley                        UNIX BSD
UCBBIZET  U Calif Berkeley                        UNIX BSD
UCBBRAHM  U Calif Berkeley                        UNIX BSD
UCBBUDDY  U Calif Berkeley                        UNIX BSD
UCBCAD    U Calif Berkeley                        UNIX BSD
UCBCALDE  U Calif Berkeley                        UNIX BSD
UCBCARTA  U Calif Berkeley                        UNIX BSD
UCBCEVAX  U Calif Berkeley                        UNIX BSD
UCBCORAL  U Calif Berkeley                        UNIX BSD
UCBCMSA   U Calif Berkeley                        VM/SP HPO
UCBCOGSC  U Calif Berkeley                        UNIX BSD
UCBCORY   U Calif Berkeley                        UNIX BSD
UCBDALI   U Calif Berkeley                        UNIX BSD
UCBEAST   U Calif Berkeley                        UNIX BSD
UCBESVAX  U Calif Berkeley                        UNIX BSD
UCBDAVIN  U Calif Berkeley                        UNIX BSD
UCBEULER  U Calif Berkeley                        UNIX BSD
UCBFRANN  U Calif Berkeley                        UNIX BSD
UCBGARNE  U Calif Berkeley                        UNIX BSD
UCBHOLDE  U Calif Berkeley                        UNIX BSD
UCBIC     U Calif Berkeley                        UNIX BSD
UCBICW    U Calif Berkeley                        UNIX BSD
UCBINGRE  U Calif Berkeley                        UNIX BSD
UCBJASON  U Calif Berkeley                        UNIX BSD
UCBJASPE  U Calif Berkeley                        UNIX BSD
UCBJI     U Calif Berkeley                        UNIX BSD
UCBKEPLE  U Calif Berkeley                        UNIX BSD
UCBKIM    U Calif Berkeley                        UNIX BSD
UCBLAPIS  U Calif Berkeley                        UNIX BSD
UCBLILAC  U Calif Berkeley                        UNIX BSD
UCBMATIS  U Calif Berkeley                        UNIX BSD
UCBMAXWE  U Calif Berkeley                        UNIX BSD
UCBMEDEA  U Calif Berkeley                        UNIX BSD
UCBMERLI  U Calif Berkeley                        UNIX BSD
UCBMIRO   U Calif Berkeley                        UNIX BSD
UCBMONET  U Calif Berkeley                        UNIX BSD
UCBNEWTO  U Calif Berkeley                        UNIX BSD
UCBOKEEF  U Calif Berkeley                        UNIX BSD
UCBOZ     U Calif Berkeley                        UNIX BSD
UCBPEARL  U Calif Berkeley                        UNIX BSD
UCBQAL    U Calif Berkeley                        MV 8000 AOS
UCBRENOI  U Calif Berkeley                        UNIX BSD
UCBROSE   U Calif Berkeley                        UNIX BSD
UCBSEYMO  U Calif Berkeley                        UNIX BSD
UCBSHADO  U Calif Berkeley                        UNIX BSD
UCBSIM    U Calif Berkeley                        UNIX BSD
UCBSRC    U Calif Berkeley                        UNIX BSD
UCBSYLVI  U Calif Berkeley                        UNIX BSD
UCBTOPAZ  U Calif Berkeley                        UNIX BSD
UCBTULIP  U Calif Berkeley                        UNIX BSD
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UCBUGS	U Calif Berkeley	UNIX BSD
UCBUNIXS	U Calif Berkeley	UNIX BSD
UCBVANGO	U Calif Berkeley	UNIX BSD
UCBVAX	U Calif Berkeley	UNIX BSD
UCBVIOLE	U Calif Berkeley	UNIX BSD
UCBWEYL	U Calif Berkeley	UNIX BSD
UCBZOOEY	U Calif Berkeley	UNIX BSD
UCBCED	U Calif Berkeley	SUN UNIX
UCBSOE	U Calif Berkeley	SUN UNIX
UCBSSL	U Calif Berkeley	UNIX
UCBBKYAS	U Calif Berkeley	VMS
UCBCCHEM	U Calif Berkeley	ULTRIX
UCBJADE	U Calif Berkeley Campus	UNIX BSD
UCBJANUS	U Calif Berkeley Campus	ULTIX
UCIVMSA	U Calif Irvine Comp Ctr	VMS
UCIVMSC	U Calif Irvine Comp Ctr	VMS
UCLATMOS	U Calif LA UCLA Atmos Science	VM/SP
UCLAVM	U Calif Los Angeles Acad Comp	VM/SP
UCLAMVS	U Calif Los Angeles Acad Comp	MVS/SP
UCLAVMB	U Calif Los Angeles Acad Comp	VM/XA SF
UCLASSCF	U Calif Los Angeles Soc Sci Facil	VM/SP
UCRVMS	U Calif Riverside Acad Comp Ctr	VMS
UCRPHYS	U Calif Riverside Phys Dept	VMS
UCSFCCA	U Calif San Fran Comp Ctr	UNIX BSD
UCSFHC	U Calif San Fran Hosp & Clinics	VM/SP
UCSFVM	U Calif San Francisco	VM/SP
SBHEP	U Calif Santa Barbara	VMS
UCSBVM	U Calif Santa Barbara Comp Ctr	VM/SP
UCSBUXA	U Calif Santa Barbara Comp Ctr	BSD UNIX
UCSBUXB	U Calif Santa Barbara Comp Ctr	BSD UNIX
UCSCMVS	U Calif Santa Cruz CATS IBM (MVS)	MVS/XA
UCSCHU	U Calif Santa Cruz H&A	UNIX BSD
UCSCLICK	U Calif Santa Cruz Lick Obs	UNIX
UCSCA	U Calif Santa Cruz Unix A	UNIX BSD
UCSCC	U Calif Santa Cruz Unix C	UNIX BSD
UCSCD	U Calif Santa Cruz Unix D	UNIX BSD
UCSCE	U Calif Santa Cruz Unix E	UNIX BSD
UCSCF	U Calif Santa Cruz Unix F	UNIX BSD
UCSCG	U Calif Santa Cruz Unix G	UNIX BSD
UCSCH	U Calif Santa Cruz Unix H	UNIX BSD
UCSCI	U Calif Santa Cruz Unix I	UNIX BSD
UCSCJ	U Calif Santa Cruz Unix J	UNIX BSD
UCSCK	U Calif Santa Cruz Unix K	UNIX BSD
UCSCL	U Calif Santa Cruz Unix L	UNIX BSD
UCSCM	U Calif Santa Cruz Unix M	UNIX BSD
UCSCVM	U Calif Santa Cruz VM	VM/SP
PORTAL	U Calif Santa Cruz VM	VMS
UCSCO	U Calif Santa Cruz VM	SUN OS
UCCVMA	U Calif System-wide Admin	VM/HPO
UCICP6	U California Comptng Fac	CP6
BUCLLN11	U Cath Louvain	VM/SP HPO R4 2
UCF1VM	U Central Florida	VM/SP
UCFCS	U Central Florida Comp Sci Dept	UNIX BSD
UCHIMVS1	U Chicago Computation Ctr	MVS/SP
UCHISTEM	U Chicago Crewe Laboratory	VM/SP
UCCCMVS	U Cincinnati	MVS/SP
UCCCVM1	U Cincinnati	VM/SP
IRUCCIBM	U College Cork	VM/SP
IRLEARN	U College Dublin	VM/HPO RELEASE 4 2
COLORADO	U Colorado Boulder Comp Svcs	VMS
COLOPHYS	U Colorado Boulder Physics	VMS
UCONNMVS	U Connecticut	MVS
UCONNVM	U Connecticut	VM/SP HPO
DKUCCC11	U Copenhagen Comp Ctr	IBM VM/SP R5
BMSUEM11	U de l'Etat Belgium	VM/SP R5
BLIULG11	U de Liege	VM/SP HPO R4 2
BLIULG12	U de Liege	VM/SP R4
BLIULG13	U de Liege Belgium	VM/SP R5
PTEARN	U de Lisboa	IBM VM/SP
IPGUNIV	U degli Studi di Perugia	IBM VM/SP R3

UDCVM	U Dist Columbia Comp Ctr	VM/SP
UDCVAX	U Dist Columbia VAX	VMS
DDOINF6	U Dortmund CC Dept	UNIX 4 2 BSD
DERRZE1	U Erlangen	IBM VM/SP R3
UFGATE	U Florida CIRCA	VMS
UFPINE	U Florida CIRCA	VMS
UFENG	U Florida Col Engr	VM/SP
UFFSC	U Florida Faculty Sup Ctr	VM/SP
CGEUGE52	U Geneva	DEC VMS
HGRRUG0	U Groningen	NOS
HGRRUG5	U Groningen	VMS 4 2
UOGUELPH	U Guelph VM/CMS	VM/SP
UOGVAX2	U Guelph, CIS	UNIX BSD
DHVMHH1	U Hannover	IBM VM/SP R2 01
UHCCUX	U Hawaii Comp Ctr	ULTRIX
UHPLATO	U Hawaii Comp Ctr	NOS
UHCCMVS	U Hawaii Comp Ctr, Hon, USA	MVS/SP 1.3.5
UHCCVM	U Hawaii Comp Ctr, Hon, USA	VM/SP/HPO 4.2
UHCCVX	U Hawaii Comp Ctr, Hon, USA	VMS
DHDTRN1	U Heidelberg Immunol Inst	IBM VM/SP HPO R4 2
FINUHCB	U Helsinki Phys Comp	VMS
UHUPVM1	U Houston Comp Ctr	VM/SP
UHNIX1	U Houston Comp Ctr	ATT
UHNIX2	U Houston Comp Ctr	ATT
UHRCC	U Houston Research Comp Ctr	VMS
UHRCC2	U Houston Research Comp Ctr 2	VMS
IDUI1	U Idaho	VM/SP
NCSAVMS	U Ill Ntl Crt Sprcomp Appl	VMS
NCSAVMSA	U Ill Ntl Ctr Sprcomp Appl	VMS
NCSAVMSB	U Ill Ntl Ctr Sprcomp Appl	VMS
UIUCNPL	U Ill- Urb-Champ Nuc Phy Lab	VMS
UICVM	U Illinois Chicago	VM/SP
UICMVS	U Illinois Chicago	MVS/SP
UICPHY	U Illinois Chicago	VMS
UICVM2	U Illinois Chicago	VM/SP
UICVMC	U illinois Chicago AISS/ACC	VM/SP
UICMVSA	U Illinois Chicago AISS/ACC	MVS/XA 2.1.5
UIUCMRL	U Illinois Comp Ctr	VMS
UIUCHEPA	U Illinois High Energy Physics	VMS
UIUCHEPB	U Illinois High Energy Physics	VMS
UIUCVME	U Illinois Urbana-Cham Comp Svcs	VM/SP
UIAMVS	U Iowa	MVS/SP
UIAECE	U Iowa	UNIX BSD
UIAPRB	U Iowa	PRIMOS
UKANVM	U Kansas Comp Srvs	VM/SP
UKANMED	U Kansas Med Ctr Dpt Info Sys	VM/SP
DKAKFK51	U Karlsruhe Rechenzentrum	VMS
DKAUNI14	U Karlsruhe Rechenzentrum	IBM VM/SP R4
UKCC	U Kentucky Comp Ctr	VM/SP
UKCCB	U Kentucky Comp Ctr	VM/SP
UKCCS	U Kentucky Comp Ctr	VM/SP HPO
UKWANG	U Kentucky DP Ctr	WANG VS
UKMA	U Kentucky Math Sci	UNIX BSD
DKIUNI0	U Kiel	TOPS-10
LAVALVM2	U Laval	VM/SP
HLERUL53	U Leiden	VMS 4 5
HLERUL2	U Leiden	MVS/SP 1 3
HLERUL5	U Leiden	VMS 4 1
HLERUL51	U Leiden	VMS 4 1
HLERUL54	U Leiden Medical Infor	VMS 4 1
HMARL5	U Limburg	VMS 4
ULKYVM	U Louisville Ctrl Comp	VM/SP
ULKYVX02	U Louisville VAX Cluster	VMS
ULKYVX04	U Louisville VAX Cluster	VMS
ULKYVX05	U Louisville VAX Cluster	VMS
ULKYVX03	U Louisville VAX Cluster	VMS
ULKYVX06	U Louisville VAX Cluster	VMS
ULKYVX07	U Louisville VAX Cluster	VMS
MECAN1	U Maine Computer Appl Network	VMS
MAINE	U Maine Computing Center	VM/SP

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PORTLAND  U Maine Portland Comp Ctr                VM/SP
UOFMCC    U Manitoba Comp Ctr
UOFMCCX   U Manitoba Comp Ctr                      VM
DMARUM8   U Mannheim                               SIEMENS BS2000
UMDARS    U Maryland College Pk ARS Lab            VMS
UMDARS1   U Maryland College Pk ARS1 Lab           VMS
UMCINCOM  U Maryland College Pk Comp Sci Ctr       VMS
UMDB      U Maryland College Pk Comp Sci Ctr       VM/SP
UMDC      U Maryland College Pk Comp Sci Ctr       VM/SP
UMDT      U Maryland College Pk Comp Sci Ctr       VM/SP
UMD2      U Maryland College Pk Comp Sci Ctr       OS 1100
UMBC1     U Maryland Comp Info Serv                VMS
UMDACC    U Maryland Computer Admin Compt Ctr.     VM/SP
UMDD      U Maryland Computer Science Ctr          VM/SP
UMES      U Maryland Eastern Shore                 VM/SP
UMDENP    U Maryland Experimental Nuclear Phys     VMS
UMDHEP    U Maryland High Energy Physics           VMS
UMAB      U Maryland Medical School                VM/SP
UMUC      U Maryland U College                     VM/SP
UMASSVM   U Mass Sch of Engineering                VM/SP
UMASS     U Massachusetts at Amherst               NOS 2.5.2
DGOGWD01  U Max-Planck-Ges Goettingen              OS 1100
UMICHUB   U Mich Comp Ctr.                         MTS
UMICHUM   U Mich Comp Ctr.                         MTS
UMDSCVM   U Mich Data Sys Ctr VM                   VM/SP
UMDSCXA   U Mich Data Sys Ctr XA                   MVS/XA 2.2
UMIPHYS   U Mich HEP                              VMS
UMINN1    U Minnesota St. Paul Comp Ctr            VM/SP
UMMVSA    U Missouri Central Facil                 MVS/SP
UMVMA     U Missouri Central Facil                 VM/SP
UMCVMB    U Missouri Columbia                      VM/HPO
UMCECN01  U Missouri Columbia                      VMS
UMCCSL1   U Missouri Columbia Campus - CC          VMS
UMKCVAX1  U Missouri Kansas City                   VMS
UMKCVAX2  U Missouri Kansas City                   VMS
UMRVMC    U Missouri Rolla                         VM/SP
UMRVMA    U Missouri Rolla Campus                  VM/SP
UMRVMB    U Missouri Rolla Campus                  VM/HPO5
UMRUNIXA  U Missouri Rolla Campus                  BSD 4.3
UMSLVMA   U Missouri St. Louis Campus              VM/SP
UMSLVMB   U Missouri St. Louis Campus              VM/SP
UMSLVAXA  U Missouri St. Louis Campus              VMS
UMKCVAX3  U Missouri Truman                        VMS
UDEM      U Moncton                                MPE V
UNCCHEM   U N Carolina ACS                         VMS
UNCVM1    U N Carolina ACS                         VM/SP
UNCVX1    U N Carolina ACS                         VMS
UNCSPHV3  U N Carolina Sch Publ Health             VMS
UNCSPHVX  U N Carolina Sch Publ Health             VMS
UNCSPHV2  U N Carolina Sch Publ Health             VMS
UNLARS    U Nebr-Lincoln Agric Res Srv             VMS
UNLAMC    U Nebr-Lincoln Amer Math Comp.           VMS
UNLASVAX  U Nebr-Lincoln Arts & Sciences           VMS
UNLVAX4   U Nebr-Lincoln CALMIT Lab                VMS
UNLCDC2   U Nebr-Lincoln Comp Res Ctr              NOS/VE
UNLVAX1   U Nebr-Lincoln Comp Res Ctr              VMS
UNLENVAX  U Nebr-Lincoln Eng. Coll                 VMS
UNLVAX3   U Nebr-Lincoln Eng. Coll                 VMS
UNLPDVAX  U Nebr-Lincoln Print & Dup               VMS
UNLTCVAX  U Nebr-Lincoln Teach. Coll               VMS
UNLADVAX  U Nebr-Lincoln VP Acad. Affairs          VMS
UNLVM     U Nebraska Comp Svcs                     VM/SP/HPO
UNLCDC3   U Nebraska Lincoln Comp Ctr              NOS
UNBMVS1   U New Brunswick                          MVS/XA
UNBVM1    U New Brunswick                          VM/SP 5
UNMB      U New Mexico Comp Ctr                    VMS
UNFVM     U North Florida Comp Svcs                VM/SP
IRISHMVS  U Notre Dame Comp Ctr                    MVS/SP
UNDHEP    U Notre Dame High Ener Phys              VMS
IRISHVM   U Notre Dame PC Lab                      VM/SP
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IRISHVM2	U Notre Dame PC Lab	VM/SP
IRISHVX2	U Notre Dame Physics Dept	VMS
NDRADLAB	U Notre Dame Radiation Lab	VMS
ALASKA	U of Alaska Comp Net	VMS
BANUIA51	U of Antwerp	VMS
ARIZVM1	U of Arizona CCIT IBM	VM
ARIZJVAX	U of Arizona CCIT VAX	VMS
ARIZRVAX	U of Arizona CCIT VAX	VMS
UBCMTSA	U of BC Admin System	MTS
UCSFC450	U of California San Francisco	ULTRIX 32M
UCSFFFFT	U of California San Francisco	ULTRIX
UCSFUSE	U of California San Francisco	UNIX
HGRRUG52	U of Groningen	VMS 4 2
UKAG	U of KY Agri Data Ctr	VM/SP
CCOL	U of Ky Community Colleges	VM/SP
HLERUL56	U of Leiden DIOS	VMS 4 2
HLERUL55	U of Leiden DIOS	VMS
UC780	U of Maryland	VMS
ECSVAX	U of NC Gen'l Admin Cent Office - Educat.	UNIX BSDrvs
OREGON1	U of O CC	VM/SP
UOTELG01	U of Ottawa Elec Eng	VMS
UTORDAIS	U of T DAIS	VMS
UTKVX2	U of Tennessee	VMS
UTKVX3	U of Tennessee Computing Center	VMS
WATLAGER	U of Waterloo, EERC	VMS
WISCAGE	U of Wis, Inst on Aging	VMS
DOLUNI1	U Oldenburg	IBM VM/SP R4
DOSUNI	U Osnabrueck	CGK BS 3
UOTTAWA	U Ottawa Computer Ctr	VM/HPO
UOTCSI1	U Ottawa Computer Sci Dept	UNIX
UOTCSI2	U Ottawa Computer Sci Dept	UNIX
UOTADM01	U Ottawa Faculty of Admin	VMS
IPACUC	U Palermo	VM/SP
PENNDRLN	U Penn DRL Comp Facil	VM/SP
PENNDRLS	U Penn DRL Comp Facil	VM/SP HPO
PENNLRSM	U Penn Matter Lab	VMS
PENNHEP1	U Penn Physics	VMS
PITTVMS	U Pittsburgh Comp Info Sys	VMS
PITTUNIX	U Pittsburgh Comp Info Sys	ULTRIX
EMDUPM11	U Poli Madrid Ctr Calc	IBM VM/SP R4
UPEI	U Prince Edward Island	VMS
UQAM	U Quebec Montreal	VM/SP
UREGINA1	U Regina	VM/SP
UREGINAV	U Regina	VMS 4 5
UREGINA2	U Regina Dept Comp Services	UNIX BSD
UORCHEM	U Rochester Chemistry VAX	VMS
UORVM	U Rochester Comp Ctr	VM/SP
UORDB2	U Rochester Comp Ctr	VMS
UORHBV	U Rochester Comp Ctr	VMS
UORJVN	U Rochester Comp Ctr	VMS
UORKV	U Rochester Comp Ctr	VMS
UORKV2	U Rochester Comp Ctr	VMS
UORMVS	U Rochester Comp Ctr	MVS/SP
UORUNIX	U Rochester Comp Ctr	UNIX BSD
UORDBV	U Rochester Computing Ctr	VMS
UORGSM	U Rochester Grad Sch Mngmnt	VM/SP
UORHEP	U Rochester High Energy Physics	VMS
UOROPT	U Rochester Institue of Optics	VMS
SASK	U Saskatchewan	DEC VMS 4 7
BAGAMCOK	U South Carolina Bus College	VM/SP
UNIVSCVM	U South Carolina Comp Svcs	VM/SP
KYLARA	U Southern Calif	VMS
MIRRIM	U Southern Calif	VMS
ZAPHOD	U Southern Calif	VMS
GEO	U Southern Calif	VMS
BMSR	U Southern Calif Biomed Simul Res	VMS
RAMOTH	U Southern Calif Chemistry Dept	VMS
JAXOM	U Southern Calif Eng Dept	VMS
MOUSE	U Southern Calif Eng Dept	VMS
PERN	U Southern Calif Engineering Sch	VMS

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SC         U Southern Calif Engineering Sch          VMS
USCVM      U Southern California                     VM/HPO
USMVAX     U Southern Maine Portland Comp Ctr        UNIX
DS0RUS1I   U Stuttgart                               IBM VM/SP R2 1
DS0RUS1P   U Stuttgart                               IBM VM/SP R2 1
DS0IKE51   U Stuttgart Inst Kernenergetik            VMS
DS0MPA51   U Stuttgart Materialpruef                 DEC VMS 4 7
DS0RUS51   U Stuttgart Rechenzentrum                 VMS
DS0RUS0    U Stuttgart, Germany                      NOS
UTCVM      U Tenn at Chatta Ctr of Excel             VM/SP
UTCMUSIC   U Tenn at Chatta MUSIC Sys                MUSIC/SP
UTKVX1     U Tennessee                               VMS
UTKSM1     U Tennessee                               VMS
UTADNX     U Texas Austin Comp Ctr                   VMS
UTA3081    U Texas Austin Comp Ctr                   VM/SP
UTA4341    U Texas Austin Comp Ctr                   VM/SP
UTGATE     U Texas Austin Comp Ctr                   VMS
UTNET      U Texas Austin Comp Ctr                   VMS
UTAIVC     U Texas Austin Comp Ctr                   VMS
UTAIV1     U Texas Austin Comp Ctr                   VMS
UTAIV2     U Texas Austin Comp Ctr                   VMS
UTAIV3     U Texas Austin Comp Ctr                   VMS
UTAIV4     U Texas Austin Comp Ctr                   VMS
UTADP      U Texas Austin Data Proc. Sys             MVS/XA
UTAPHY     U Texas Austin Physics Dept               VMS
UTDALVM1   U Texas Dallas Acad Comp Ctr              VM/SP
UTEPA      U Texas El Paso CC                        VM/SP
UTEP       U Texas El Paso Comp Ctr                  VM/SP
UTSA4381   U Texas San Antonio                       OS/VS1
UTSAVM1    U Texas San Antonio Comp Res              VM/SP
UOFT01     U Toledo                                  VM/SP
UOFT02     U Toledo                                  VMS
NORUNIT    U Trondheim                               IBM VM/SP R4
DTUZDV2    U Tubingen ZDV BASF                       MVS/SP
DTUZDV1    U Tubingen Zent Datenverar                IBM VM/SP R3
UTHSCSA    U TX Hlth Sci Ctr Comp Resrcs             VMS
SEUMDC01   U UME$                                   CDC NOS 2 3
HUTRUU0    U Utrecht                                 AOS/VE
HUTRUU51   U Utrecht Neth                           VMS 4 6
UVUNIX     U Victoria UNIX
UVPHYS     U Victoria VAX
UVVM       U Victoria VM                             VM/SP
VIRGINIA   U Virginia Acad Computing                 NOS
UWACDC     U Washington Acad Comp Ctr                NOS
UWAV1      U Washington Acad Comp Ctr VAX1           VMS
UWAV2      U Washington Acad Comp Ctr VAX2           VMS
UWAV3      U Washington Acad Comp Ctr VAX3           VMS
UWAV4      U Washington Acad Comp Ctr VAX4           VMS
MAX        U Washington Acad Comp Srvs               VMS
UWAVM      U Washington Academic Comp Ctr            VM/SP
UWAIS1     U Washington Admin Data Proc              VM/SP HPO
UWAMVS1    U Washington Admin Data Proc              MVS/SP
UWACHEM    U Washington Chemistry VAX                VMS
UWASH      U Washington Cmptng. & Commun             VM/SP
SAAM       U Washington Ctr for Bioeng.              VMS
CPAC       U Washington Ctr for Process Analy Chem   VMS
UWAEE      U Washington Electrical Engr              VM/SP
UWAENG     U Washington Electrical Engr              VM/SP
UWALOCKE   U Washington Locke Comp Ctr               VMS
UWAPHAST   U Washington Physics VAX                  VMS
WATACS     U Waterloo Adv Control Sys                VM/SP
WATACO     U Waterloo Arts Comp Off                  VMS
WATDCS     U Waterloo Comp Svcs                      VM/SP
WATCSG     U Waterloo Comp Sys Grp                   VM/SP
WATDCSU    U Waterloo Dept Comp Svcs                 UNIX BSD
WATMTA     U Waterloo Dept Comp Svcs                 VMS
WATSCI     U Waterloo Facil Science                  VMS
WATMAD     U Waterloo Mapping Analysis & Design      VMS
WATER      U Waterloo Math/ICR                       UNIX
WATMNET    U Waterloo MICRONET                       VM/SP
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UWF	U West Fla Comp Ctr	VM/SP
UWOCC1	U Western Ontario	VM/SP
WINDSOR1	U Windsor	VM/SP
WISCPSLB	U Wisconsin Dept Physics	VMS
WISCMAC1	U Wisconsin Madison Comp Ctr	VMS
WISCPSLA	U Wisconsin Phys Sci Lab	VMS
WISCPSLC	U Wisconsin Physical Sci Lab	VMS
DW0URZ0	U Wuppertal HRZ	CDC NOS 2 3
WYOCDC1	U Wyoming	NOS
UWYO	U Wyoming	VMS
DHBRRZ41	U. Bremen	SIEMENS BS3000 MSP 20
FRUTC51	U.T.C. Compiegne, France	DEC VMS
DHDUB1	UB Heidelberg, Germany	IBM VM/SP R4
UCLASAUP	UCLA - Arch and Urban Plng	VM/SP
UCLACH	UCLA Chem Dept.	VMS
UCLAUE	UCLA Crystallog. Res.	VMS
UCLASTRO	UCLA Department of Astronomy	VMS
UCLAPH	UCLA Dept. of Physics	VMS
UCLAHEP	UCLA High Energy Physics	VMS
UCLAIEPI	UCLA IE Physics	VMS
UCLASP	UCLA Space & Plasma Physics	VMS
UCLASS	UCLA Space Science	VMS
SBITP	UCSB Inst Theor Physics	VMS
UCSFCOPE	UCSF Clinic for Lab Medicine	ULTRIX
BANUFS11	UFSIA, Antwerpen, Belgium	VM/SP
BANUIA52	UIA Antwerpen	VMS 4 5
UIUCVMC	UIUC - ENGR	VM/SP
UIUCVMD	UIUC _ CSO	VM/SP
BBRBFU01	ULB/VUB	NOS
BLIULG14	ULG, Liege, Belgium	VM/SP R5
BLIULG15	ULG, Liege, Belgium	VM/SP R5
SEUMDC51	UMDAC Umea, Sweden	DEC VMS
GRATHUN1	UNATH, ATHENS, GREECE	NOS 2 5.2 (678/670)
UNC	UNC Comp Ctr	MVS/SP
UNCCVM	UNCC Compt. Srvs. VM	VM/SP
GRCRUN11	UNCR Heraklion, Crete, Greece	VM/SP
GRCRVAX1	UNCR, Heraklion, Crete, Greece	VMS 4 3
FRUNES21	UNESCO	MVS/SP
DBTHRZ5	Uni Bayreuth RZ, Germany	DEC VMS 4 6
DERDBS5	Uni Erlangen	VMS
DFRRUF1	UNI Freiburg, Germany	IBM VM/SP HPO R4
DGIPIG5	Uni Giessen Physik, Germany	DEC VMS 4 5
DHDURZ1	Uni Heidelberg	IBM VM/SP R5
DKAUNI5T	Uni Karlsruhe	VMS
DKAUNI0P	Uni Karlsruhe (IPF), Germany	PRIMOS REV. 20.0.4
DKAUNI0I	Uni Karlsruhe (IRA), Germany	UNIX 4 3 BSD
DKAUNI12	Uni Karlsruhe, Telematik	IBM VM/SP R3
DMZUK1	Uni Klinik Mainz, Germany	IBM VM/SP R5 0
DK0RRZK1	Uni Koeln, Germany	IBM VM/SP R4
DKNKURZ1	Uni Konstanz, Germany	IBM VM/SP R5
HLERUL57	Uni Leiden	VMS 4 5
HLERUL58	Uni Leiden, Netherlands	VMS 4 5
HLERUL5I	Uni Leiden, Netherlands	SUN OS 3 5
DMSWWU0X	Uni Muenster, Germany	IBM IX/370
DMSWWU5P	Uni Muenster, Kernphysik	VMS
HROEUR1	Uni Rotterdam, Netherlands	VM/SP R4 1
HROEUR51	Uni Rotterdam, Netherlands	VMS 4
CSGHSG52	Uni St Gallen, Switzerland	DEC VMS
CSGHSG53	Uni St Gallen, Switzerland	DEC VMS
DS0IND5	Uni Stuttgart, Germany	DEC VMS 4.4
DS0ITA51	Uni Stuttgart, Germany	DEC VMS 4 6
DS0RUS52	Uni Stuttgart, Germany	DEC VMS 4 5
DS0RUS54	Uni Stuttgart, Germany	DEC VMS 4 5
DS0MSV1	Uni Stuttgart, Germany	IBM VM/SP R4
DS0SYN51	Uni Stuttgart, Germany	DEC VMS 4 6
DS0IFU56	Uni Stuttgart, Germany	DEC VMS 4 6
DS0IFF5	Uni Stuttgart, Germany	DEC VMS 4 2
DTUMED1	Uni Tuebingen, Med. Rechenzent	IBM VM/SP
HENTHT51	Uni Twente	VMS 4
HUTRUU52	Uni Utrecht, Netherlands	VMS 4 6

HUTRUU53	Uni Utrecht, Netherlands	VMS 4 4
CNEDCU51	Uni. Neuchatel, Switzerland	DEC VMS
DKARH01	UNI-C, Aarhus, Denmark (CDC)	CDC NOS 2 4.1-630/628
DKARH02	UNI-C, Aarhus, Denmark (VAX)	DEC VMS 4 4
DANPOST	UNI-C, Aarhus, Denmark (VAX)	ULTRIX
DKEARN	UNI-C, Lyngby, Denmark (IBM)	IBM VM/SP HPO R4 2
NEUVM1	UNI-C, Lyngby, Denmark (IBM)	IBM VM/SP HPO R4 2
DKUNIL51	UNI-C, Lyngby, Denmark (VAX)	DEC VMS 4 5
NEUMVS1	UNI-C, Lyngby,Denmark (AMDAHL)	IBM MVS/XA
USUHS	Uniformed Svrs Univ of Health Sci	VMS
UNION	Union College	VNS
DBNINF5	Univ Bonn Informatik	VMS
UCLARUAC	Univ Calif Los Angeles UCLA/OAC	VMS
UCCVMB	Univ Calif System-wide Admin	VM/HPO
UCLAAIS	Univ California LA AIS	MVS/XA
EMDUCM11	Univ Complutense de Madrid	VM/SP
UCHCECVM	Univ de Chile CEC	VM/SP
UCHDCI01	Univ de Chile DESECI	VM/SP
CFRUNI51	Univ de Fribourg	DEC VMS 4 4
USACHVM1	Univ de Santiago de Chile	VM/SP
UTALCAVX	Univ de Talca	VMS
DD0RUD81	Univ Duesseldorf	SIEMENS BS2000 V8 0
UGAIBM1	Univ Georgia	MVS/JES3
UGA205	Univ Georgia	VSOS
LAVALVX1	Univ Laval	VMS
LAVALMU1	Univ Laval Music Sys	MUSIC/SP
DMZRZU71	Univ Mainz	BULL MULTICS MR 11R
DMSWWU1C	Univ Muenster, Germany	IBM VM/SP HPO R5 0
UNAMVM1	Univ Nat'l Auto De Mexico	VM
UNBSJ	Univ New Brunswick St. John	PRIMOS
NUNO	Univ New Orleans Admin DP	MVS
UNO	Univ New Orleans CRC	VMS
ARIZMIS	Univ of Arizona - MIS Dept	VMS
SOVSET	Univ of Arizona - Soviet Studies	VMS
ARIZEVAX	Univ of Arizona College of Eng. EVAX2	VMS
UALR	Univ of Arkansas Little Rock	VMS
UAFSYSA	Univ of Arkansas Main Camp	VM/SP
UAFSYSB	Univ of Arkansas Main Camp	VM/SP HPO
UAFMUSA	Univ of Arkansas Main Camp	MUSIC/SP
UAMS	Univ of Arkansas Med Sci	VMS
UBCMTSG	Univ of BC General Sys	MTS
UBCMTSL	Univ of BC Library System	MTS
NOBERGEN	Univ of Bergen, Norway	IBM VM/SP R5
UNCAEDU	Univ of Calgary	VMS
UCSCZ	Univ of California CC Series Z	VMS
UCSCCRLP	Univ of California Comp Res Lab Pger	UNIX
UCSCCRLV	Univ of California Comp Res Lab Vger	UNIX
UCSCCRLI	Univ of California Comp Res Lab VM	VM/SP
UCSCCRLJ	Univ of California Comp Res Lab, Jup	UNIX
UCSCCRLS	Univ of California Comp. Res Lab Saturn	UNIX
UCSCLOA	Univ of California Lick Observ	UNIX
UCSCERIS	Univ of California Physics Bd	UNIX 4.2
UCSD	Univ of California San Diego Acad Gatwy Su	SUN UNIX
UCSDMVSA	Univ of California San Diego AdCom Op	MVS/XA
UCDAVIS	Univ of California, Davis	UNIX
UCDHEP	Univ of California, Davis	VMS
UCHASTRO	Univ of Chicago - Astron/Astrophy	UNIX
COLOLASP	Univ of Colorad / LASP	VMS
COLOSPGS	Univ of Colorado - Colorado Springs CS	VMS
FARRAND	Univ of Colorado Boulder - Farrand Hall	VMS
CUDENVER	Univ of Colorado Denver	VMS
UCOLMCC	Univ of Colorado Health Sci Ctr	VMS
DAYTON	Univ of Dayton	VMS
DUCAIR	Univ of Denver Comptng & Info Res	VMS
IFASGNV	Univ of Florida	VMS
CGEUGE53	Univ of Geneva	DEC VMS
CGEUGE11	Univ of Geneva	IBM VM/SP
CGEUGE54	Univ of Geneva	DEC VMS
UGACDC1	Univ of Georgia	NOS
UGA	Univ of Georgia	VM/SP

UGABUS	Univ of Georgia	VM/SP
UGAMUSIC	Univ of Georgia	MUSIC/SP
UGAXA	Univ of Georgia	VM/XA/SF
CCQC	Univ of Georgia	VM/SP
SREL	Univ of Georgia	VMS
TIFTON	Univ of Georgia Coastal Plains Exp Sta	VM/SP
GRIFFIN	Univ of Georgia Experiment Station	VM/SP
HARTFORD	Univ of Hartford	VMS
UHHEPG	Univ of Hawaii High Enrgy Phys Grp	VMS
FINUHB	Univ of Helsinki	VMS
ISEARN	Univ of Iceland	VM/SP
IDCSVAX	Univ of Idaho	VMS
UIUCSCS	Univ of Illinois Chemistry	VMS
UICBAL	Univ of Illinois Chicago Biomolec Analy La	VMS
UKANVAX	Univ of Kansas VAX Sys	VMS
UKPR	Univ of Kentucky Prim	PRIMOS
FINKUO	Univ of Kuopio	VMS
CLSUNI51	Univ of Lausanne	DEC VMS
UMBSKY	Univ of Mass at Boston	VMS
UMBMAP	Univ of Mass at Boston	VMS
UMAECS	Univ of Mass, Eng. Comp Svrs	VMS
UMBC2	Univ of MD, Baltimore Co	VMS
UMNACVX	Univ of Minnesota Acad Comptng	VMS
UMNACBR	Univ of Minnesota Acad Comptng	VMS
UMNACCA	Univ of Minnesota Acad Comptng	NOS
UMNACUX	Univ of Minnesota Acad Comptng	UMAX 4.2
UMNADMIN	Univ of Minnesota Admin Info Svcs	MVS
UMNDUL	Univ of Minnesota Duluth	VMS
UMNHCS	Univ of Minnesota Health Comp Sci	VMS
UMNHSNOS	Univ of Minnesota Health Sci Cmptng Srvs	NOS
UMNHSNVE	Univ of Minnesota Health Sci Cmptng Srvs	NOS
UMNMOR	Univ of Minnesota Morris	VMS
SIMVAX	Univ of Minnesota Sim Resource	VMS
UMNSOM	Univ of Minnesota, Sch of Mgmt	VM/SP
UMSVM	Univ of Mississippi	VM/SP
UMSMVS	Univ of Mississippi	MVS/SP
UMSNOS	Univ of Mississippi	NOS
UMSVSOS	Univ of Mississippi	VSOS
UMSPHY	Univ of Mississippi	VMS
UNMCVM	Univ of Nebraska Med Ctr	VM/HPO
UNOMA1	Univ of Nebraska Omaha CC	VMS
UNOMA2	Univ of Nebraska Omaha CC	VMS
UNEV	Univ of Nevada Sys CC	NOS
UNB	Univ of New Brunswick	MVS/XA
UNHH	Univ of New Hampshire	VMS
UNCVAX1	Univ of North Carolina CH	VMS
UNCG	Univ of North Carolina Greensboro Acad CC	VMS
UNTVM1	Univ of North Texas Comp Ctr	VM/SP
UNTMUSIC	Univ of North Texas MUSIC	
NTSUVAXA	Univ of North Texas VAX A	VMS
NTSUVAXB	Univ of North Texas VAX B	VMS
UOKMVSA	Univ of Oklahoma Norman	MVS/XA-JES2
UOREGON	Univ of Oregon Dept. Comp. & Info Scie,	UNIX BSD
UONEURO	Univ of Oregon Inst. of Neurosci VAX	VMS
UOXRAY	Univ of Oregon Molecular Bio VAX	VMS
OREGON	Univ of Oregon VAX 8800	VMS
UOTADM02	Univ of Ottawa	
UPRENET	Univ of Puerto Rico Ed Net	VMS
URVAX	Univ of Richmond	VMS
UORNSRL	Univ of Rochester	VMS
SCRANTON	Univ of Scranton Comp Ctr	VMS
SCRVMSYS	Univ of Scranton Comp Ctr	VM/SP
UDESVM	Univ of Sherbrooke	VM/SP 4
UDESMA	Univ of Sherbrooke	
UDESMB	Univ of Sherbrooke	
USOUTHAL	Univ of South Alabama	VM/SP
USMCP6	Univ of Southern Miss	CP6
UTCHP1	Univ of Tennessee - Chatta.	MPE V/E
UTKVX4	Univ of Tennessee Comp Ctr VAX4	VMS
UTKCS1	Univ of Tennessee Computer Sci Dept	VMS

UTMEM1	Univ of Tennessee, Memphis	VMS
UTMEM2	Univ of Tennessee, Memphis	VMS
UTMEM3	Univ of Tennessee, Memphis	VMS
UTARLVM1	Univ of Texas - Arlington VM	VM/SP
UTARLACS	Univ of Texas Arlington	MVS/SP
UTARLADM	Univ of Texas Arlington	MVS/SP
UTARLG	Univ of Texas Arlington	VMS
UTMBEACH	Univ of Texas Med Branch at Galveston	VMS
UTSW	Univ of Texas Southwestern Med Ctr Dallas	VMS
UTHVM1	Univ of Texas Sys Cancer Ctr	VM/SP
UTCHPC	Univ of Texas Sys Ctr for High Perfor Cmpt	VMS
UTARL	Univ of Texas Sys Off of Telecom. Srvcs	VMS
UTDAL	Univ of Texas Sys Off of Telecom. Srvcs	VMS
UTEPD	Univ of Texas Sys Off of Telecom. Srvcs	VMS
UTHOU	Univ of Texas Sys Off of Telecom. Srvcs	VMS
UTHSA	Univ of Texas Sys Off of Telecom. Srvcs	VMS
UTHTYL	Univ of Texas Sys Off of Telecom. Srvcs	VMS
UTMGAL	Univ of Texas Sys Off of Telecom. Srvcs	VMS
UTPB	Univ of Texas Sys Off of Telecom. Srvcs	VMS
UTSA	Univ of Texas Sys Off of Telecom. Srvcs	VMS
UTSYS	Univ of Texas Sys Off of Telecom. Srvcs	VMS
UTTYL	Univ of Texas Sys Off of Telecom. Srvcs	VMS
UTSPH	Univ of Texas Sys Off of Telecom. Srvcs	VMS
UTCCSP	Univ of Texas Sys Off of Telecom. Srvcs	VMS
UTMSI	Univ of Texas Sys Off of Telecom. Srvcs	VMS
THENIC	Univ of Texas Sys Off of Telecom. Srvcs	VMS
UTHDAL	Univ of Texas Systems	VMS
JPNUTDME	Univ of Tokyo	VM/SP
JPNUTINS	Univ of Tokyo - INS	OS IV/F4 MSP
JPNUTKOM	Univ of Tokyo Coll of Arts & Sci	VM/SP
JPNISSP	Univ of Tokyo/Inst for Solid St Phy	OS IV/F4 MSP
UTORCSRI	Univ of Toronto	
UTORSCG	Univ of Toronto	VM/SP
UTORSCS	Univ of Toronto	VMS
UTORGPU	Univ of Toronto	SUN BSD
UTORMCL1	Univ of Toronto	VMS
UTORME	Univ of Toronto Mech Eng	UNIX
UTOROCI	Univ of Toronto OCI	VMS
UTORPHYS	Univ of Toronto Physics	VMS
JPNTSUKU	Univ of Tsukuba - SIPC	DYNIX
TULSA	Univ of Tulsa	CP-6 C01
UTAHCCA	Univ of Utah CC	VMS
UTAHBUS	Univ of Utah College of Bus CC	VM
UTAHLIB	Univ of Utah Marriott Lib	VM/SP
UTAHMED	Univ of Utah Med Sch Scie CC	VMS
UVMVM	Univ of Vermont	VM/SP
UVMADMIN	Univ of Vermont	VM/SP
UVMVAX	Univ of Vermont	VMS
UWAJANUS	Univ of Washington Astro. HST Project	VMS
UWAGEM	Univ of Washington Gemini Comptng Faclty	VM/SP
UWAMATSC	Univ of Washington Materials Sci Comp	VM/SP
UWAPA2	Univ of Washington Physics Theory Grp	VMS
UWOVAX	Univ of Western Ontario	VMS
WINDSOR2	Univ of Windsor	VMS
UWPG02	Univ of Winnipeg	DEC VMS 5 0
WISCCDE	Univ of Wis., Cntr. Demog.	VMS
WISCPHEN	Univ of Wisc Pheno Inst	MICROVMS
WISCGPS	Univ of Wisc, Geog/PoliSci Depts	VMS
UWLAX	Univ of Wisconsin - La Crosse	VMS
UWMCSD4	Univ of Wisconsin - Milwaukee	UNIX
UWSTOUT	Univ of Wisconsin - Stout	VMS
UWEC	Univ of Wisconsin Eau Claire	CP-6 COO
WISCSOC	Univ of Wisconsin Madison Socio Dept	VMS
OSHKOSHW	Univ of Wisconsin Oshkosh	VMS
WISCMAC3	Univ of Wisconsin, MACC	VMS
HROEUR0M	Univ Rotterdam	MUSIC/SP
EBCCUAB1	Univ. Autonoma de Barcelona	DEC VMS
IMIBOCCO	Univ. BOCCONI - Milano, Italy	IBM VM/SP R4
FINUH	Univ. of Helsinki, Finland	VMS 4.5
FINUJO	Univ. of Joensuu, Finland	DEC VMS 4 7

FINTUVM	Univ. of Turku, Finland	IBM VM/SP R5
EBRUPC51	Univ. Politecnica de Catalunya	DEC VMS 4 5
EMDICAI1	Univ. Pontificia Comillas, Sp	DG AOS/VS 6 06
DK0RRZK0	Univer Koeln Regls Rechentrum	NOS
EMDUAHM1	Universidad Alcala de Henares	DG AOS/VS 6 06
EMDUAM12	Universidad Autonoma Madrid	IBM VM/SP R4
EMDUAM51	Universidad Autonoma Madrid	VAX-VMS 4 7
EB0UB011	Universidad Barcelona - Spain	VM/SP
EBUBECM1	Universidad Barcelona - Spain	IBM VM CMS REL 5
ELEULE11	Universidad de Leon, Spain	IBM VM/SP R1 2
EOVUOV11	Universidad de Oviedo - C P.D.	IBM VM/SP R3 1
IGECUNIV	Universita Genova	VM/SP
IMEUNIV	Universita Messina	IBM VM/SP R3 1
ICSUNIV	Universita' della Calabria	VM/SP
IBGUNIV	Universita' di Bergamo Italy	IBM VM/SP R4
IPRUNIV	Universita' di Parma, Italy	IBM VM/SP R2
IRMUNISA	Universita' La Sapienza	IBM VM/SP R4
IRMECOSA	Universita' La Sapienza	IBM VM/SP R3
IRMINGSA	Universita' La Sapienza	IBM VM/SP R3
ITNCISCA	Universita' Trento, Italy	DEC VMS 3 0
DBIUNI11	Universitaet Bielefeld HRZ	VM/SP
DHBRRZ45	Universitaet Bremen	SIEMENS BS3000 MSP 20
DDOHRZ21	Universitaet Dortmund	IBM MVS/SP 1 3.3
DERRZE0	Universitaet Erlangen	CDC NOS 2
DE0HRZ1A	Universitaet Essen	IBM VM/SP R4
DGIHRZ01	Universitaet Giessen	NOS
DHHUNI4	Universitaet Hamburg, Germany	SIEMENS BS3000 MSP 20
DHHUNI1	Universitaet Hamburg, Germany	VM/SP R5
DMZRZU5P	Universitaet Mainz, Germany	DEC VMS 4 5
DSIHRZ51	Universitaet Siegen	VMS
DULRUU51	Universitaet Ulm, Germany	DEC VMS 4 5
DHDURZ2	Universitaets-Rechenzentrum	IBM MVS/SP 2 1.7
DE0WTZ1A	Universitaetsklinikum Essen	IBM VM/SP R3
CFRUNI52	Universite de Fribourg, Switz	DEC VMS 4 6
CFRUNI53	Universite de Fribourg, Switz	DEC VMS 4 6
UMTLVR	Universite de Montreal	VMS V4 6
FRUTRS51	Universite de Tours	VAX VMS
UQUEBEC	Universite du Quebec	VM/CMS 3 1
UQHULL	Universite Du Quebec A Hull	VMS
FRP8V11	Universite Paris 8	VM/SP
CGEUGE51	University de Geneve	DEC VMS
UNCA205	University of Calgary Cyber	VSOS
UDACSVM	University of Delaware	VM/SP
UDPLATO	University of Delaware Off of Instruct. Te	NOS
USCN	University of Georgia	NOS
UHVAX1	University of Houston	VMS
UHVAX8	University of Houston	VMS
ELROY	University of Houston	VMS
UHOU	University of Houston	VMS
UHCL2	University of Houston/CL	VMS
UHDVX2	University of Houston/Downtown	VMS
UTKVM1	University of Tennessee	VM/SP HPO
UTOREPAS	University of Toronto	VM/SP
UTORONTO	University of Toronto	VM/SP HPO 4 2
UTORMVSB	University of Toronto	MVS/XA 2 3
UTORVM	University of Toronto	VM/SP HPO 4 2
UTORMED	University of Toronto	
UTOROISE	University of Toronto OISE	VMS
SEUDAC21	Uppsala U Data Ctr	IBM MVS/SP 1 3.0
SEMAX51	Uppsala Univ, Sweden	DEC VMS
URIMVS	URI Academic Computer Center	MVS/SP
URIACC	URI Academic Computer Center	VM/HPO5
NCCIBM1	US EPA	MVS/XA-JES2
USGSRESV	US Geological Survey ISD VAX	VMS
GROGHE	USC - Groghe	VMS
USCMVSA	USC - System MVSA	OS/VS2 MVS/XA
USU	Utah State U	VMS
UTORCCIE	UTORCCIE	VM/SP
UVSOL	UVic COMP UNIX	SUN OS 3 2
UWAFRODO	UW Radiation Oncology	VMS

UWARITA	UW San Diego RUAC	VMS
VALPO	Valparaiso Univ	AOS
VUENGVAX	Vanderbilt U Engineering Sch	VMS
VUCTRVAX	Vanderbilt Univ CC	VMS
VUCTRVX1	Vanderbilt Univ CC	VMS
VUCTRVX2	Vanderbilt Univ CC	VMS
VUHHCL01	Vanderbilt Univ HHCL	VMS
VULIBS	Vanderbilt Univ Library	IBM/DOS
VUHEP	Vanderbilt Univ Physics	VMS
VANDVM1	Vanderbilt Univ. A&S	VM/SP
VANDVMS1	Vanderbilt Univ. Physics	VMS
VASPSY	Vassar Col Psych and Econ	VMS
VASSAR	Vassar College	VMS
VASCHU	Vassar College	VMS
VAS780	Vassar College	VMS
VILLVM	Villanova Univ	VM/SP
VUVAXCOM	Villanova Univ	VMS
VCUMVS	Virginia Common U Comp Ctr	MVS/SP
VCUVM1	Virginia Common U IBM C.C	VM/SP
VCUJADE	Virginia Commonwealth Univ	VMS
VCURUBY	Virginia Commonwealth Univ	VMS
VCCSHOST	Virginia Community Coll Sys	MVS/JES2
VTCS1	Virginia Tech (VPI)	VMS
VTMATH	Virginia Tech (VPI)	VMS
VTME	Virginia Tech (VPI)	VMS
VTSDA	Virginia Tech (VPI)	VMS
VTVAX3	Virginia Tech (VPI)	VMS
VTVAX5	Virginia Tech (VPI)	VMS
VTVM1	Virginia Tech (VPI)	VM/SP
VTVM2	Virginia Tech (VPI)	VM/SP
VTVM3	Virginia Tech (VPI)	VM/SP
VTHCL	Virginia Tech (VPI)	VMS
VTOPUS	Virginia Tech (VPI)	ULTRIX-32 V2
VTCNSVM1	Virginia Tech (VPI)	VM/SP
VTCC1	Virginia Tech (VPI)	VMS
BBRVKI51	VKI, Rhode-St-Genese, Belgium	VMS 4 7
VOLCANI	Volcani Institute	DEC VMS 4 5
FINVTT	VTT, Finland	DEC VMS 4 6
JPNWAS00	Waseda Univ	VM/SP
WSUVM1	Washington State U Comp Ctr	VM/SP
WSUVMS2	Washington State Univ - Comp. Srvs Ctr.	VMS
WSUMATH	Washington State Univ - Math Dept	VMS
WSUVMS1	Washington State Univ Comp Serv Ctr	VMS
WUNET	Washington U St Louis	VMS
WUBLUE	Washington Univ	MUSIC/SP
WUGOLD	Washington Univ	MUSIC/SP
WUGREEN	Washington Univ	MUSIC/SP
WUMS	Washington Univ Med Sch	VMS
WUVMA	Washington University	VM/SP
WUVMC	Washington University	VM/SP
WUVMD	Washington University	VM/SP
WUVME	Washington University	VM/SP
WUVMF	Washington University	VM/SP
HDEDH1	Waterloopkundig Lab , Delft	VM/SP 4
WAYNEST1	Wayne State Univ CC	VM/SP
WEIZMANN	Weizmann Inst Comp Ctr	IBM VM/SP HPO R4 2
WISVMS	Weizmann Inst Dept of Chem	DEC VMS 4 3
WISDOM	Weizmann Inst Dept of Math	UNIX 4.2 BSD
WESLEYAN	Wesleyan U Net Gate Comp Ctr	VMS
WESLYN	Wesleyan University	VMS
WCU	West Chester Univ of PA	VM/HPO
WVNMVS	West Virginia Network	MVS/XA
WVNVAXA	West Virginia Network	VMS
WVNVAXB	West Virginia Network	VMS
WVNVM	West Virginia Network	VM/SP
WVNSVC	West Virginia Network	VMS
WVNVMS	West Virginia Network	VMS
WVNET	West Virginia Network	VMS
DMSWWU1A	Westfael Wilhelms-U Muenster	IBM VM/SP HPO R5 0
DMSWWU2B	Westfael Wilhelms-U Muenster	IBM MVS/SP 1 3.5

TWSUVM	Wichita State Univ CC	VM/SP
WLUCP6	Wilfred Laurier Univ	CP-6
WILLIAMA	Williams College CC	VMS
WILLIAMB	Williams College CC Admin VAX Sys	VMS
WILLIAMS	Williams College Comp Ctr	VMS
DGOWISO1	WISO-RZ Uni Goettingen,Germany	IBM VM/IS R5
WPI	Worcester Poly Tech EE	ULTRIX
IBRDVM1	World Bank	VM/HPO
WSU	Wright State Univ	VMS
AWIWUW11	WU-Wien	IBM VM/SP HPO R4 2
WVNBSC	WVNET - Bluefield St Col	VMS
WVNCC	WVNET - Concord Col	VMS
WVNFSC	WVNET - Fairmont St Col	VMS
WVNGSC	WVNET - Glenville St Col	VMS
WVNNCC	WVNET - Northern Comm. Col	VMS
WVNPCC	WVNET - Parkersburg Comm. Col	VMS
WVNPSC	WVNET - Potomac State Col	VMS
WVNSC	WVNET - Shepherd Col	VMS
WVNSCC	WVNET - Southern Comm Col	VMS
WVNWLSC	WVNET - West Liberty St. Col	VMS
WVNWVIT	WVNET - West VA Instit of Tech	VMS
WVNWVSOM	WVNET - West VA Sch of Osteopathic Med	VMS
WVNWVSC	WVNET - West Virginia St Col	VMS
XAVIER	Xavier Univ Acad Comp Ctr	VMS
YALEMED	Yale Med Sch - Biomedical Comp Unit	VMS
YALEADS	Yale U Admin Data Svcs	VM/SP/HPO
YALASTRO	Yale U Astronomy Dept	VMS
YALECS	Yale U Comp Sci Dept	UNIX
YALEMVS	Yale U Computer Ctr	MVS/SP
YALEVM	Yale U Computer Ctr	VM/SP/HPO
YALEVMS	Yale U Computer Ctr	VMS
YALPH2	Yale U HEP2	VMS
YALEHEP	Yale U Physics Lab	VMS
YALEZEUS	Yale Univ Med Sch	VMS
TRYILDIZ	Yildiz Univ	VM/SP R3
YUORION	York U Admin Stud Environ Sci	VMS
YUSOL	York U Comp Sci Fac Sci	VMS
YUYETTI	York U Comp Sci Research	UNIX BSD
YULIBRA	York U Computing Services	VMS
YUVULCAN	York U Glendon Coll	VMS
YORKVM1	York University	VM/SP
YORKVM2	York University	VM/SP
YUGEMINI	York University	VMS
YUVENUS	York University	VMS
YSUA	Youngstown State Univ	MVS/SP
YSUB	Youngstown State Univ	VM/SP
DTUZDV5A	ZDV U Tuebingen	VMS
DK0ZA1	Zentralarch Sozialfors Koeln	VM/SP
CZHRZU1A	Zurich U	IBM VM/SP
CZHRZU2B	Zurich U	IBM MVS/SP

PENDING NODES AS OF 10/05/88
TOTAL NODES = 3

Node	Site	System
MHC	Mount Holyoke Coll	ULTRIX
RADFORD	Radford Univ	AOS/VS
WWU	Western Washington Univ	BERKELEY UNIX

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Zigmond. It had never been used before, with the exception of a single conference to test it out, and within a week of giving it to Zigmond it was gone.

4. Another biggie is that Zigmond claims that by the time he submits this article in August 1986 (to wherever) that if he gets $900 for it, he would break even. He is saying this from his phone bills and other expenses on the article.

   Now only breaking even after all that time, work, and effort seems a bit worthless to me, why would he do it? You know, they say that fed informants get paid very well, not that I am suggesting that Zigmond is a fed informant.

Some other stuff that may be interesting to know is that Zigmond insists that he will be getting accounts to Metal Shop Private and Stronghold East when Taran King and Slave Driver have given very strong "no"s. He goes around telling this to people. His phone answering machine gives you less than ten seconds to leave a message, this is perhaps to prevent hacking, but nevertheless annoying.

Now please everyone take this file in the way it was intended. This is not saying that Daniel Zigmond is helping the feds, he may be completely interested and wanting to learn about our society. From this I gather that he will learn that in the phreak community we try to protect each other from getting busted and that a reporter like him could literally destroy the phreak world if he was working with the feds and left unquestioned and unchecked.

This article is a warning to all who may contact Zigmond to use your own good judgement in dealing with him. I'm sure that once he answers the questions raised in this article then everything will be alright.

The only other thing I wanted to say is that in general reporters have hurt the phreak/hack world tremendously in the past. They bring too much attention to the phreaks and bring us into the public eye. As a result there has been much more legislation creating news laws against us. Some examples are evident in this very issue of PWN. Blue Buccaneer points out all sorts of things in the new hacking laws article. Remember the new laws about sysops being responsible for the boards? Did you see how that was used in the Teltec busts? It getting incredibly dangerous out there friends, lets try not to make it any worse.

:Knight Lightning

Defeat Richard Proctor In 4 Easy Steps! June 10, 1986

Who is this new investigator Atlanta? What makes him today's newest and possibly greatest threat to the phreak world? The following information concerns an MCI investigator named Richard Proctor, alias; John Proctor.

Richard Proctor, who also introduces himself to others as John Proctor, is one of the various MCI investigators that now lurk the nation. He is in charge of most of MCI's security/investigation divisions, and is in charge of running the southeast, east coast, and northeast MCI Investigations. He has also been involved with phreaks in the midwest and southwest.

I am not sure of the extent of his "jurisdiction," but all users of MCI should be careful no matter where they are located. Holophax Phreaker and The Infiltrator can personally tell you how he runs the MCI Investigations as they have been under investigation twice to date. Holophax Phreaker is currently still under investigation by Proctor and even by his own local Bell Operating Company (BOC).

The first thing most investigators would do when they find an access code has been abused is to wait until it has a large bill to act upon it (which may never happen). This is because it is unprofitable to the long distance service to try to find and prosecute a person who has made less than $500.00 worth of calls (depending on the LD service).

Richard Proctor is a very different case. As soon as he finds an access code is being abused, he will take immediate action. The following is the series of events which will take place once Proctor discovers an abused account.

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In the following steps, "you" are the phreaker in question that was making the calls (heaven forbid). The steps listed are for both "you" and the person(s) receiving the illegally made phone calls.

Step 1: Proctor will personally call *EVERY* destination number on the account and ask for information on who called them on the date(s) the call(s) were made. If it is a bulletin board, he will contact the sysop by voice or if there is no voice number available, he will send one or more investigators from the nearest MCI Investigations Department to question the sysop. He will ask them for information pertaining to the phreaker. Hopefully, your amnesiac friends will somehow forget all about you and be able to tell Proctor nothing.

Step 2: Proctor waits a couple of days, then he again contacts the person(s) that received calls and says that he has found you and that you have told him that the people "you" had been speaking with also made those calls and that the Proctor will bust the person(s) who were called unless they would like to pay for the calls. (If this part pertains to you, that is if you were the one who received calls and Proctor or any agent said this then, at this point you should contact an attorney as this is telephone harassment, a federal crime committed over an interstate communications carrier, and you could sue MCI or whichever company it involved).

Step 3: If some of the person(s) called by you weren't as amnesiac as you would have liked when Proctor spoke to them and then Proctor calls you or your parents, then you should deny everything that Proctor accuses you of, no matter how many people he says turned you in. Proctor will be lying (one hopes) so deny everything.

Step 4: Proctor will call you again in a couple of days and tell you that you have one last chance to turn yourself in. When you say no again, Proctor will try to scare you by telling you that MCI is going to make an example of you and prosecute to the fullest extent. If Proctor does this, then you know he has no evidence on you or at most, circumstantial evidence.

You might get a couple of calls after that. Keep denying it and make sure you drop out of phreaking for approximately 1 1/2 - 2 months. If you get a call from your local phone company then drop out for at least 6 months to a year. They will most likely put a pen register or a DNR on your line.

Proctor has PhDs in Psychology and Criminal Psychology so be very careful! He can't do anything to you if you follow the above guidelines unless he had a trace put on the account you were using. If that is the case, then he will show up at your door arrest you. Your best bet is to stay away from it entirely. Proctor's home phone is unlisted (of course), but his office number can be obtained from any MCI operator.

Information Provided by
Holophax Phreaker and The Infiltrator

Quick Notes

Stronghold East is now running on a new Apple //e thanks to their friends at AMEX. They formally ran SE off of a Franklin Ace. May 3, 1986
Most recently the hard drive at SE crashed and until they acquire the new ProDos Apple net, they will be running Phlash-Net written by Phlash Gordon.

Rumor has it that the Apple Wizard was busted for dealing and using coke.

A guy named the CPTN was busted in Nevada for something pertaining to the Captain Midnight incident. He was also busted for carding and was caught with illegally obtained modems. Info by Death Angel.

A member of the Underworld Elite, run by Night Stalker, got busted for calling the White House and making a bomb threat. The Secret Service came to his house and they knew he used illegal extenders to make the calls. This user decided to give them the number and his passwords to the Underworld Elite. He was deleted. Info by Night Stalker, 5/11/86...The Underworld (216)356-9464

Telenet Bob was busted. The full story appeared in the April issue of 2600 Magazine. Nineteen year old from New Jersey. Name Robert Davenport. $500 fine, $890 restitution to AT&T. Info by Sally Ride:::Space Cadet

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Bad Boy In Black has given up BBSing and Phreaking (for the most part) so you probably won't be hearing from him again. He claims he has gotten bored of BBSing and have had little time since the summer is rolling around. Therefore, he decided to give it up all together. Info by [bad boy in black] 5/11/86

Shooting Shark has also left the phreak world for the more or less same reasons plus the fact that he is going to college. Info by Shooting Shark.

In Texas, some cop was running a bbs called the Tunnel. No one was busted, but names and handles of those posting illegal codes were collected. The cop has received several death threats.

The Slayer was busted on April 25, 1986. Reportedly he was visited by agents from Metrophone, MCI, New Jersey Bell, and the FBI. His bust concerned Metro abuse. The Godfather, in Rhode Island, was also linked to this bust as well and as of now has quite the phreak world, but no further information is available on that. Most recently it has been discovered that the Slayer has been hired as a TSPS operator.

More news on The Sprinter here; after all was said and done, Sprinter plea bargained (as expected) and plead guilty to the charges. He spent 14 days in jail, has a $2000 fine, 2 years probation, 200 hours community service, and of course those lawyer costs. He at this point has not accepted a job with MicroSoft. Info by Jester Sluggo.

It has been reported that The Mentor and Crustaceo Mutoid are now writing for a newsletter in California called The Underground Informer.

The Arabian Knight was busted for conferencing.

The Guardian Demon (215) was apparently busted for Metrophone abuse, but formal charges have not been brought forth.

Jester Sluggo has officially retired from all board calling and is now into straight hacking. He will maintain his contacts in the phreak world. Sysops are asked to remove his accounts.

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Icub (International Computer Underground Bandits):

This is a hack/phreak group who's main emphasis is on phreaking. It is based in Memphis, Tennessee. It has 10 members in it, and the only semi-active member left is Doc Holiday. Not much else is really known about this group except that it is inactive and there have not been any announced plans to revive it.

LOD/H: Legion Of Doom/Hackers

These two groups are very closely intertwined. They both were formed on Plovernet. The founding member was Lex Luthor. Through the years, there have been LOD/H bulletin boards such as Blottoland, LOD, FOD, etc. Today there is Catch 22 and a new LOD bbs, supposedly being run by King Blotto. The current member list of the group is as follows:

Legion Of Hackers	Legion Of Doom
Blue Archer	Phucked Agent 04
Gary Seven	Compu-Phreak
Kerrang Khan	
Lex Luthor	
Master Of Impact	
Silver Spy (Sysop of Catch 22)	
The Marauder	
The Videosmith	

LOD/H is known for being one of the oldest and most knowledgeable of all groups. In the past they have written many extensive g-philes about various topics. (Please forgive any mistakes in the member list since this list was provided by Lex Luthor approximately 1 1/2 - 2 months ago).

Metal Communications: A very large group that has written many files throughout its existence. Some of the boards in its menagerie include Speed Demon Elite, Metal AE, Metal Works AE, Metalland I and several others. The membership of Metal Communications includes:

Cobalt 60/Crimson Pirate/Dr. Local/Red Pirate/Shadow Lord/The Angel Of Destiny
The Apothecary/The Byte/The Byte Byter/The Dark Wizard/The Duke/The Dutchman
The Man In Black/The Prophet/The Pink Panther/The Voice Over/The Radical Rocker
The Warlock Lord/White Knight

Red Pirate, Crimson Pirate, and Dr. Local are the group's main ware distributors.

A subsidiary of Metal Communications is the Neon Knights whose membership includes:

Baby Demon/Jolly*Roger/The Blade aka Killer Kurt/The Master of Reality
The Metallian/The Outland/Zandar Zan

PAG/PAP: Phreaks Against Geeks/Phreaks Against Phreaks Against Geeks

PAG: This group was formed by TWCB Inc. as a joke on a conference in December, 1985. The charter members were TWCB, Inc. taRfruS, Blue Adept, The Clashmaster and a few others. Later, Catcher in the Rye and the Slovak wanted to join.

PAP: In resistance to PAG, Boston Stangler and Micro Man formed PAP. Several others sided with them but were never formal members.

All of this nonsense was really started on the Dartmouth system and was mainly a feud between phreaks in the Boston (617) area until TWCB got involved.

The Administration: This group was sort of in two parts; The Administration and Team Hackers '86. The membership of these groups include:

Adolph Hitler.....Team Hackers '86

Alpha Centauri
Author Unknown.....Team Hackers ’86
British Bloke.....Team Hackers ’86
Dark Priest
David Lightman (214).....Administration Leader/
Team Hackers ’86
Dr. Pepper
Hewlett Hackard
Major Havock.....Team Hackers ’86
Mane Phrame
Mark Twain
Phoneline Phantom 1 - *Not* a member of Phoneline Phantoms.
Red Baron
Renegade Rebel
Sasha Kinski.....Team Hackers ’86
The President
Walter Mitty

The group did disband temporarily for reasons dealing with security, but now is back together. For other news about this group see the current PWN.

The Nihilist Order: This group was really a loosely connected bunch of friends and phreaks and not a true club. It is based in Fremont and Sunnyvale, California. It was started by TRASk and The Highwayman. The membership includes:

BelGarion/Ogre Ogre/The Animator/The Highwayman/TRASk

All of the members of the group have been busted or been involved in busts in the past few months. The Highwayman bit it in the Phoenix Phortress Sting Operation, and the others all got caught on a carding scam. Although BelGarion was later released with no record.

One of the boards in the Nihilist Order’s network is the Shattered World Elite, which is sysoped by TRASk. The group is currently inactive.

The P.H.I.R.M.: A somewhat new group that recently has been accused (without proof) of being fed invested.

Not much is really known about this group as they would disclose very little information. Some of the boards that are now P.H.I.R.M operated include Thieve’s Underworld, sysoped by Jack The Ripper, World’s Grave Elite sysoped by Sir Gamelord, and SATCOM IV.

The P.H.I.R.M. reportedly will be releasing a newsletter.

The membership of the P.H.I.R.M. supposedly includes:

Archangel	Blade Runner
Jack The Ripper	Sir Gamelord
The Stingray	

It is rumored that Blade Runner is the same person as Archangel and/or The Stingray.

TPM (The Punk Mafia): This group when last checked had eight members. The following is a complete listing.

Arthur Dent	Creative Chaos
Erik Bloodaxe	Gin Fizz
Ninja NYC	Peter Gunn
Rudolph Smith (703)	The Godfather (703)

The group will be going through a rebirth this summer. Their main goals include burglary, fraud, hacking, and phreaking. Most recently The Godfather retired and Ninja NYC came very close to being busted. See Phrack World News Issue V.

The Racketeers: The new Apple pirating group was assembled by Apple Rebel. The

membership now includes:

Apple Rebel/Crustaceo Mutoid/Hot Rod/The Micron/The Warezird

Tribunal Of Knowledge: This group was formed very recently by Blue Buccaneer and High Evolutionary with one purpose in mind: to get together to trade knowledge and information and to discuss this information until all the members had a good working knowledge of it. The final result would be g-philes written by the group about the topic. On the whole it was a good idea.

The complete membership includes:

Blue Buccaneer	Chef Boy R Dee
Cyclone II	High Evolutionary
Night Stalker	Paradox
Professor Pixel	Slave Driver
The Inspectre	The Seker
The Wild Phreak	

2300 Club: Based in Cleveland, Ohio. The 2300 Club is now being compared and treated as miniature mafia by local authorities. This is mainly for crimes including the blowing up of cars. Two of the members were caught for fraudulent use of a credit card and one has been arrested for car theft. Which of the members that refers to, I don't know, but the membership of the 2300 Club included:

Dr. Gorey	Dr. No
Eagle Eyes	Judge Dredd
King Blotto	Mr. Modem
Prince Squid	Spectreman
The Formatter	

2600 Club/New 2600 Club: Both groups are no longer in existence. Originally started as a local group of friends in St. Louis, Missouri, it gained members quickly, too quickly, and as the membership grew, the unity and productivity of the group lessened until the group(s) finally broke up. However many of the members of 2600 Club now write (or have in the past) for Phrack Inc. Among them are:

Cheap Shades/Data Line/Dr. Crash/Forest Ranger/Gin Fizz/Jester Sluggo
Knight Lightning/Monty Python/Phantom Phreaker/Taran King/The Clashmaster

2600 Club had no relation to 2600 Magazine.

Warelords: There are 13 members in the Warelords and they are based in California, Maryland, Tennessee, Washington D.C., and Wyoming. Billibuster, a member of the group, said that the Warelords are a phreaking and carding group that also writes programs and sells them. He claims that they are not pirates. The group isn't very active.

Other groups:

Catholics Anonymous: A pirate group
Elite Phreakers and Hackers Club: From World of Cryton
Feds R Us: Joke by King Blotto
High Mountain Hackers
Imperial Warlords: See Five-O
Inner Circle: The Cracker (Author of "Out of The Inner Circle")
Kaos Inc.
Knights of Shadow: Sir Knight
MPG: Midwestern Pirates Guild
NASA Elite: Captain Kid
Neon Knights: See Metal Communications
Phlash: A relatively new Amiga kracking group.
Phoneline Phantoms: The Colonel, The Duke, The Executioner, and The Sprinter.

Phreak Hack Delinquents: Metro Man and the Reaper (212)
Project Genesis: Sigmund Fraud
RDTF: Red Dawn Text-Files, Saltheart Foamfollower (SE) and Brain Gadget (Ca.)
Shadow Brotherhood
65C02 Elite (612): Wizard of ARPAnet and The Count. BBSes: Irongate, North Pole, The Guild, and The Graveyard.
The Dange Gang: Maxwell's Demon
Triple Entente
2601 Club: Formed by taRfruS to combat 2600 Club.
1200 Club
Ware Brigade

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The Techno-Revolution

by

Doctor Crash

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Hacking. It is a full time hobby, taking countless hours per week to learn, experiment, and execute the art of penetrating multi-user computers. Why do hackers spend a good portion of their time hacking? Some might say it is scientific curiosity, others that it is for mental stimulation. But the true roots of hacker motives run much deeper than that. In this file I will describe the underlying motives of the aware hackers, make known the connections between Hacking, Phreaking, Carding, and Anarchy, and make known the "techno-revolution" which is laying seeds in the mind of every hacker.

To fully explain the true motives behind hacking, we must first take a quick look into the past. In the 1960's, a group of MIT student built the first modern computer system. This wild, rebellious group of young men were the first to bear the name "hackers". The systems that they developed were intended to be used to solve world problems and to benefit all of mankind.

As we can see, this has not been the case. The computer system has been solely in the hands of big businesses and the government. The wonderful device meant to enrich life has become a weapon which dehumanizes people. To the government and large businesses, people are no more than disk space, and the government doesn't use computers to arrange aid for the poor, but to control nuclear death weapons. The average American can only have access to a small microcomputer which is worth only a fraction of what they pay for it. The businesses keep the true state of the art equipment away from the people behind a steel wall of incredibly high prices and bureaucracy. It is because of this state of affairs that hacking was born.

Hackers realize that the businesses aren't the only ones who are entitled to modern technology. They tap into online systems and use them to their own advantage. Of course, the government doesn't want the monopoly of technology broken, so they have outlawed hacking and arrest anyone who is caught. Even worse than the government is the security departments of businesses and companies. They act as their own "private armies" and their ruthless tactics are overlooked by the government, as it also serves their needs.

Hacking is a major facet of the fight against the computer monopoly. One of the ways hackers accomplish their means has developed into an art in itself: Phone Phreaking. It is essential that every Hacker also be a Phreak, because it is necessary to utilize the technology of the phone company to access computers far from where they live. The phone company is another example of technology abused and kept from people with high prices.

Hackers often find that their existing equipment, due to the monopoly tactics of computer companies, is inefficient for their purposes. Due to the inexorbitantly high prices, it is impossible to legally purchase the necessary equipment. This need has given still another segment of the fight: Credit Carding. Carding is a way of obtaining the necessary goods without paying for them. It is again due to the companies stupidity that Carding is so easy, and shows that the world's businesses are in the hands of those with considerably less technical know-how than we, the hackers.

There is one last method of this war against computer abusers. This is a less subtle, less electronic method, but much more direct and gets the message across. I am speaking of what is called Anarchy. Anarchy as we know it does not refer to the true meaning of the word (no ruling body), but to the process of physically destroying buildings and governmental establishments. This is a very drastic, yet vital part of this "techno-revolution."

Hacking must continue. We must train newcomers to the art of hacking. We

must also increase computer Crashing. I know that crashing a computer seems a waste, but when there is no other way to subvert a business, their system must be shut down.

As I stated above, this is only on the motives. If you need a tutorial on how to perform any of the above stated methods, please read a file on it. And whatever you do, continue the fight. Whether you know it or not, if you are a hacker, you are a revolutionary. Don't worry, you're on the right side.

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Unix Nasties

By Shooting Shark

Written on April 3, 1986

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Summary: Methods of sabotaging your favorite Unix system.

Preface: I do not advocate utilizing ANY of the methods I put forth in this file. Unix is a cool operating system, perhaps one of the best systems ever designed in many respects. If you have access to a Unix system, you should LEARN UNIX AND LEARN C, because that is where the money is in the computer world. However, Unix is a relatively insecure operating system which is easy to fuck up. This file explains a few ways of doing so.

Crash The System

Unix has no built-in provision for the maximum amount of disk space allowed per user. Thus, one user can grab all the disk space on the system and effectively prevent anyone else from writing to the disk. A simple way of grabbing all the disk space is to create subdirectory after subdirectory until it is no longer possible. Here are a few ways of doing it.

1> Create a file with the following lines:

```
mkdir subdir
cd subdir
source /u1/mydir/crash
```

Call it crash. The last line ("source /u1/mydir/crash") should be altered so that it will look for the file in your directory. If your directory is /u3/students/jeff, the last line should say "source /u3/students/jeff/crash". After you write the above file, type:

```
% source crash
```

and wait...within a few minutes the program will abort because it won't have any more room on the disk. Neither will anyone else.

2> Here's a more elegant way of doing the same thing. Create this "endless loop" shellscript:

```
while : ; do
mkdir subdir
cd subdir
done
```

and then "source" the file. If you are in the "sh" shell (if you are, you will probably have a "$" prompt) you can type "while : ; do" from the $ prompt. You will then get a > prompt. Type the next three lines and sit back.

3> If you'd like to set the process in motion and hang up, and the file is called crash, type:

```
% nohup source crash &
```

and log off. This will start it as a background process, allowing you to log off. However, log off QUICKLY, since if you used the first example for your crash file, it will also eat up background processes like crazy which will also fuck up the system to some extent. Which brings us to...

Slow Down The System Immensely

There are many ways of doing this, the method being creating a sufficiently large number of background processes. Here's one specific example. Create a file called "slow1" with the following lines:

```
w &
source slow1
```

create a file called "slow2" with:

```
source slow1 &
source slow2
```

and execute slow2 with

```
% slow2
or
% slow2 &
```

This will create 25 background processes, each one running 25 background processes. The system will hardly move after you've got each one running.

Messing Up A Directory

Many file-handling commands use "-" options. Create a file with a "-" at the beginning of its name by doing this:

```
cat > -filename
```

[now type a few lines, maybe something rude like "ha ha you can't delete this file".] Type a ^D (control-d) to end input. You now have a file called -filename in your directory. It will be VERY difficult to remove this file. If you were to try rm (remove) -filename or mv (rename) -filename, the rm or mv program would interpret -filename as an option, not a file, and would give you an error message telling you that -filename was not a valid option...thus, the file stays there obnoxiously.

Create a couple of hundred files with "-" as the first characters in their names...it will be a royal pain for the person who is blessed with these new files, and they will probably just have to get a new login.

Conclusion

The use of any of these techniques is quite irresponsible, and if anyone did this to my Unix system, I'd be quite pissed. That is why I strongly recommend that you never use these tricks.

So Long,
Shooting Shark

"Some people have a bad attitude, and I say, if they want to act tough, beat 'em up!" - Blue Oyster Cult

---

For more information on UNIX sabotage and cracking, see the following articles:

Ritchie, Dennis M. [he wrote Unix] "On the Security of UNIX." Programmers Manual for UNIX System III Volume II. Supplementary Documents.

Filipski, Alan and Hanko, James. "Making UNIX Secure." BYTE Magazine, April 1986, pp 113-128.

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==Phrack Inc.==

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```
-------------------------------------------------------------------------------
                                        *
                                       /
                                 /=-=-=-=-=-\
                                < Smoke Bomb >
                                 >----------<
                                <     by     >
                                 >  Alpine  <
                                <    Kracker >
                                 \-=-=-=-=-=/
-------------------------------------------------------------------------------
```

Ingredients-

- Saltpetre (Potassium Nitrate)
- Sugar
- Alcohol (100% is best, but plain rubbing alcohol will work)
- Gunpowder (or some ground-up rocket engines)
- Matches (Get a box of 50 packs -they can be very useful.)
- Coffee can
- Cigarette

Instructions:

Combine the sugar and saltpetre in a 3:1 ratio (Sugar:saltpetre) and heat over a low flame until the mixture has thoroughly melted together. (It will look like sticky white lumps when ready) You need to stir this continually while heating, and remove it from the flame at the very first sign of smoke. I had a batch go off in my face once, and the workroom was filled with smoke for a good half hour. It is easier and safer to work with smaller batches.

Now, dump all of this "smoke powder" into a coffee can, add some match heads, moisten it with a little alcohol, and add gunpowder until all the smoke powder is coated. Now tape a cigarette between the match heads in an unopened book. Imbed the book into the mixture.

Light the but, and walk casually away to find a nice alibi within 5 minutes.

Notes:

You should be able to find some Saltpeter in a local drug store.

All of the gunpowder, match heads, and alcohol is simply to insure good ignition. You can omit them, but if you have them, mix them in for reliability’s sake. For the fuse, you can either use the one listed, or either some canon fuse, or a rocket igniter and an electrical system.

A quarter pound of this stuff is supposed to fill a city block. I’m not sure if that is accurate, but it sure fills a public bathroom nicely.

```
    /\          |   /
   /  \         |  /
  /====\        | /
  |    |        | \
  |    lpine    |  racker
```

==Phrack Inc.==

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Car telephones include a small transmitter-receiver unit that is usually mounted in the trunk, an antenna and a control head that includes the handset. In most cellular systems, the telephone touchpad is located on the handset. Many domestic and foreign manufacturers make cellular car phones, but so far only Motorola makes portables, the DYNA T-A-C 8000X and 8000S. Motorola's portables look like a slightly enlarged, somewhat chunky telephone handset, with a stubby antenna at one end.

Portables are less powerful than car units, so they can't be used with some cellular systems. The portable's other limitation is battery life. A portable can listen for calls for about eight hours, but it can only transmit for only thirty minutes. After that time it must be charged for a minimum of an hour.

The following American cities have cellular telephone service or soon will get it:

New York	Denver
Los Angeles	Seattle
Chicago	Milwaukee
Philadelphia	Tampa
Detroit	Cincinnati
Boston	Kansas City
San Francisco	Buffalo
Washington	Phoenix
Dallas	San Jose
Houston	Indianapolis
St. Louis	New Orleans
Miami	Portland
Pittsburgh	Cleveland
San Diego	Atlanta
Baltimore	Minneapolis

==Phrack Inc.==

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Jester Sluggo presents
an insight on
Wide-Area Networks
Part 2

!.!

Part 1 contains information on ARPANET and CSNET.
Part 2 contains information on BITNET, MFENET, UUCP and USENET.
It is best if you read both files to better understand each other.

These files will cover general information on wide-area networks, (I.E. ARPANET, CSNET, BITNET, MFENET, UUCP and USENET), but may contain information in relationship with other networks not emphasized in these files. These files are NOT a hacker's tutorial/guide on these systems.

BITNET

BITNET. In 1981, City University of New York (CUNY) surveyed universities on the East Coast of the U.S. and Canada, inquiring whether there was interest in creating and easy-to-use, economical network for interuniversity communication between scholars. The response was positive. Many shared the CUNY belief in the importance of computer-assisted communication between scholars. The first link of the new network, called BITNET, was established between CUNY and Yale University in May 1981.

The network technology chosen for BITNET was determined by the availability of the RSCS software on the IBM computers at the initial sites. [The name BITNET stands for Because It's Time NETwork.] The RSCS software is simple but effective, and most IBM VM-CMS computer systems have it installed for local communications, supporting file transfer and remote job entry services. The standard BITNET links are leased telephone lines running at 9600 bps. Although all the initial nodes were IBM machines in university computer centers, the network is in no way restricted to such systems. Any computer with an RSCS emulator can be connected to BITNET. Emulators are available for DEC VAX-VMS systems, VAX-UNIX systems, and for Control Data Corp. Cyber systems and others. Today, more than one-third of the computers on BITNET are non-IBM systems.

BITNET is a store-and-forward network with files and messages sent from computer to computer across the network. It provides electronic mail, remote job entry, and file transfer services, and supports and interactive message facility and a limited remote logon facility. Most BITNET sites use the same electronic mail procedures and standards as the ARPANET, and as a result of the installation of electronic mail gateway systems at the University of California at Berkley and at the University of Wisconsin-Madison, most BITNET users can communicate electronically with users on CSNET and the ARPANET.

BITNET has expanded extremely rapidly -- a clear indication that is providing service that people need and want. The simplicity of the connection to the network -- acquiring a 9600-bps leased line to the nearest neighboring computer node and in installing an additional line interface and modem -- provides the service at the right price. By the end of 1985 the number of computers connected was expected to exceed 600, at more than 175 institutions of higher education throughout the U.S. BITNET is open without restriction to any college or university. It is not limited to specific academic disciplines, and may be used for any academic purpose. However, use for commercial purposes is prohibited. In special cases, connection of commercial organizations may be sponsored by universities. A particular case is the connection of Boeing Computer Services to BITNET, as part of the NSFnet initiative, to provide remote job entry services to their Cray X-MP/24 to NSF supercomputer grantees who have access to BITNET.

Until recently BITNET had no central management structure, and was coordinated by an executive board consisting of members from the major institutions participating. This worked because most of the computers connected were managed and operated by professional service organizations in university computer centers. However, the growth in the network made it

possible to continue in this ad hoc fashion, and a central support organization was established with support from an IBM grant. The central support organization, called the BITNET network support center (BITNSC), has two parts: A user services organization, the network information center (BITNSC), which provides user support, a name server and a variety of databases, and the development and operations center (BITDOC) to develop and operate the network. A major question facing the members of BITNET is how the funding of this central organization will be continued when the IBM grant expires in 1987.

BITNET, with support from the NSFnet Program, is now examining ways to provide ARPANET-like services to existing BITNET sites. The project, which is similar to the CSNET CYPRESS project, will explore a strategy to provide an optional path to the use of the TCP-IP procedures on existing 9.6-kbps leased lines. The possibility of upgrading these lines to multiple alternate links, providing higher reliability and availability, or to higher speed 56-kbps links is also being studied. The project will offer a higher level of service to BITNET sites choosing this path and also enable a low-cost connection to NSFnet.

MFENET

MFENET. The DOE's magnetic fusion energy research network was established in the mid-1970's to support access to the MFE Cray 1 supercomputer at the Lawrence Livermore National Laboratory. The network uses 56-kbs satellite links, and is designed to provide terminal access to the Cray time-sharing system (CTSS), also developed at the Lawrence Livermore Laboratory. The network currently supports access to Cray 1, Cray X-MP/2, Cray 2, and Cyber 205 supercomputers. The network uses special-purpose networking software developed at Livermore, and, in addition to terminal access, provides file transfer, remote output queuing, and electronic mail, and includes some specialized application procedures supporting interactive graphics terminals and local personal computer (PC)-based editing. Access to the network is in general restricted to DOE-funded researchers. Recently the network has been expanded to include the DOE-funded supercomputer at Florida State University. MFENET is funded by DOE and managed by Livermore.

MFENET has been successful in supporting DOE supercomputer users. However, the specialized nature of the communications protocols is now creating difficulties for researchers who need advanced graphics workstations that use the UNIX BSD 4.2 operating system and the TCP-IP protocols on LAN's. For these and other reasons, DOE is examining how best to migrate MFENET to the TCP-IP, and later to the OSI, protocols.

The combination of the CTSS operating system and the MFENET protocols creates an effective interactive computing environment for researchers using Cray supercomputers. For this reason, two of the new NSF national supercomputer centers -- San Diego (SDSC) and Illinois -- have chosen the CTSS operating system. In SDSC's case, the MFENET protocols have also been chosen to support the SDSC Consortium network. In Illinois case, a project to implement the TCP-IP protocols for the CTSS operating system has been funded by the NSFnet program, and these developments will be shared with SDSC (and with DOE) to provide a migration path for the SDSC Consortium network.

UUCP and USENET

UUCP and USENET. The UUCP network was started in the 1970's to provide electronic mail and file transfer between UNIX systems. The network is a host-based store-and-forward network using dialup telephone circuits and operates by having each member site dialup the next UUCP host computer and send and receive files and electronic mail messages. The network uses addresses based on the physical path established by this sequence of dialups connections. UUCP is open to any UNIX system which chooses to participate. There are "informal" electronic mail gateways between UUCP and ARPANET, BITNET, or CSNET, so that users of any of these networks can exchange electronic mail.

USENET is a UNIX news facility based on the UUCP network that provides a news bulletin board service. Neither UUCP nor USENET has a central management; volunteers maintain and distribute the routing tables for the network. Each member site pays its own costs and agrees to carry traffic. Despite this reliance on mutual cooperation and anarchic management style, the network operates and provides a useful, if somewhat unreliable, and low-cost service to its members. Over the years the network has grown into a world-wide network with thousands of computers participating.

OTHERS

Other Wide-Area Networks. Of necessity this file of wide-area networks has been incomplete: Other networks of interest include the Space Plasma Analysis Network (SPAN) -- a network of DEC VAX computers using 9.6-kbps links and the DECNET protocols for National Aeronautics and Space Administration's researchers; the planned Numerical and Atmospheric Sciences (NAS) network centered at Ames Research Center -- a network that is expected to use existing and planned NASA communications links and the TCP-IP protocols; and the planned high-energy physics network -- a network based largely on VAX computers and using the standard X.25 network level protocols plus the so called "coloured books" protocols developed in the United Kingdom. Also, many high-energy physicists, at the Stanford Linear Accelerator, at the Lawrence Berkley Laboratory, and at Fermi Laboratory, among others, have used DECNET to connect their DEC VAX computers together.

/
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/ luggo !!

Please give full credit for references to the following:

Dennis M. Jennings, Lawrence H. Landweber, Ira H. Fuchs, David J. Faber, and W. Richards Adrion.

Any questions, comments or Sluggestions can be emailed to me at Metal Shop, or sent via snailmail to the following address until 12-31-1986:

J. Sluggo
P.O. Box 93
East Grand Forks, MN 56721

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-=+^ Phrack World News ^+=-

Issue Five/Part 1

Compiled and Written By

Knight Lightning

~_~

Where is Taran King? May 10, 1986

Taran King is generally thought to be a very mellow, easy going person. For the most part this is true. However he also gets into major fights with his dad. When Taran does get pissed he, gets violent. In the past he has punched a hole into his bedroom door and put dents in his refrigerator with his fists.

Most recently his dad found out about his collection of illegal knives, including stilettos, butterflies, and survival knives. They got into an argument about this and eventually into a fight. Taran stormed off to his room. Meanwhile, unknown to him, his dad called the police. They took him to a nearby hospital's adolescent psychiatric ward, supposedly for evaluation. As of June 14, 1986 he has been there for five weeks and the end isn't in sight.

For a while he had no phone of visitor privileges and there was no way of contacting him. This now has changed, but the problems have not been solved.

On May 23, 1986 he was let out on a pass to go see Judas Priest in concert (it was great). He has been let out on pass several times since then as well, mostly on weekends.

As far as Metal Shop Private...

Well on May 12, 1986, the /\/impha and I decided to go to Taran's house to collect the Phrack files and to add a few new modifications to the bbs so that I could control it better remotely. Taran's sister let us in, no problem. Unfortunately, before we were done Taran's dad came home. He immediately spotted my car outside and burst into the house. He was pissed that we were there and made sure we weren't stealing anything (like I am really going to steal from my best friend right?). He assumed that the bbs had crashed and that we were there fixing it. He then decided that he didn't want us to come over every time the board crashed and TOOK IT DOWN!

Metal Shop Private will return when Taran gets out, hopefully sometime in June.

Metal Shop AE April 27, 1986

Metal Shop AE is now the proud possessor of a full 40 megs of online storage. It also has added an individual password system for greater board security and now has an email messaging service online.

Metal Shop AE is sysoped by Cheap Shades. It is one of the main distribution centers for Phrack Inc. It has the complete Phrack series online as well as almost 1000 other files.

To become a member of Metal Shop AE, contact Cheap Shades, Taran King, or Knight Lightning.

To upload files for distribution in Phrack Inc. be sure to upload them to drive E which will save your file to a non-public viewable drive where it will stay until it is edited for Phrack.

Mark Tabas and Karl Marx Busted May 2, 1986

The story goes like this; Mark Tabas was working at a plant in Denver where credit card blanks are manufactured. He decided to take a few. He and Karl Marx then went about finding someone with an embossing machine to print some stuff onto the blanks. They were able to find someone and agreed to meet at a motel to do the work. Everything went well. They were able to print card numbers, names, and expiration dates that they had gotten onto the blanks. To celebrate they ordered a bottle of champagne from room service, and paid for it with one of the cards. At that point the guy with the embosser pulled his badge, Secret Service! Now Mark Tabas and Karl Marx are facing forgery and carding charges along with theft for the blanks.

Information provided by Sally Ride...Space Cadet

(Editor's Note: At the time that this information was gained, Sally Ride commented that it may be a rumor. Any inconsistencies are not his fault)

May 15, 1986

We at Phrack have since uncovered more information about this bust. Apparently a guy named Will Bell, who's handle was Jack Bell, set up Karl Marx and Mark Tabas. Will Bell had the embossing machine and was not a member of the Secret Service. Instead, he was the son of a member of the Secret Service (although maybe he was the son of a member of the FBI). Since he was not a fed, this was not a case of entrapment. It is believed that Will/Jack Bell is originally from the 312 (Chicago) area.

Information Provided by Jester Sluggo and The Sprinter

FBI/Wylon In Action

On May 2, 1986, the homes of Cheap Shades and Kleptic Wizard received visits from Edward P. Nowicki, Special Agent of the Federal Bureau of Investigation.

This was not a bust in any way. This agent was trying to gain evidence for a telecommunications company known as Wylon, which is mainly based in the Colorado/Wyoming area. Apparently someone or several people had been calling Kleptic Palace AE and Metal Shop AE illegally and Mr. Nowicki wanted to know who had been placing these calls.

As far as Kleptic Palace AE, the calls in question were made on 2/9/86 5:12 AM, 2/9/86 4:33 PM, and 2/10/86 7:30 AM. Although no specific order is mentioned. The times of the calls made to Metal Shop AE are not available. A third place called was the home of TWCB Inc. At the time of these calls Whackoland was still up.

The agent expected all of them to have a caller log on the board but of course neither of their AEs kept caller logs. Not to mention the fact that no one would kept a caller log for three months anyway.

Kleptic Wizard got a message to Taran King which was then sent to me, and within the hour I arrived at Klepto's house where I discovered the FBI still around, so after killing another 45 minutes, I went inside and met with Klepto. Mr. Nowicki had left behind two things, his business card and a list of four suspects that he was specifically trying to bust. Apparently all four had been caught for Wylon abuse in the past.

I recognized the name at the top of the list almost instantly and as a result, saved a fellow phreak from a possible bust. Two of the others are rumored to have been warned as well. However if this is untrue then the other three still may be in great danger as of this writing. All of the suspects live in the Wyoming/Colorado area.

The homes of Cheap Shades and Kleptic Wizard were not searched and their boards were not looked at. The FBI agent even declined an invitation from Kleptic Wizard to see the bbs. This may be because he didn't have a warrant.

Information provided by

Administration Nominations? May 6, 1986

In late April 1986, The Administration decided to have their yearly membership drive for the group. The phreaks/hackers being voted on for membership included:

Blade Runner/Jester Sluggo/Knight Lightning/Oryan Quest/Phlash Gordon
Recent Change/Sally Ride/Slave Driver/Taran King/The Marauder

Many of the above and others had thought that they had been voted into the Administration without even being asked. However this was not the case.

David Lightman stated that the nominations were made public so that the Administration members would know of the vote taking place on Administration BBS
1. Once the nominations were voted on, then the phreaks/hacks would be formally invited.

I now pose an important question. If David Lightman is the only regular board caller of the Administration, then how would the other members know how to vote?

So far the results of the votes have not been made public. Not that it matters that much because The Administration has now more or less completely fallen apart. It would appear that this new membership drive was an attempt to revive the group with new blood. However the group has been revived on its own, since the formers members regrouped again...at least temporarily.

Some Information Provided by David Lightman

Trouble in Texas June 2, 1986

In the last week of May, David Lightman, decided to do a credimatic check on Blade Runner. To his great surprise, he found that Blade Runner worked for Southwestern Bell Security. He confronted Blade Runner with this information and shortly afterward received a visit from Southwestern Bell Security, who confiscated his terminal programs, his user files, notebooks, and g-phile disks. He claims that his user files and g-philes were scrambled so no one should worry too much.

Later that day, Sir Gamelord, sysop of World's Grave Elite, called David Lightman and said that Blade Runner was on the board and acting really strange. David Lightman told him what happened and they then hung up. The next day Blade Runner is a cosysop of World's Grave Elite as well as Thieve's Underground, sysoped by Jack The Ripper. Now Sir Gamelord denies the incident ever occurred. At this writing, David Lightman is laying low and retiring from the phreak world until things clear up.

Sir Gamelord's side to this story is quite different. Sir Gamelord said that he, Blade Runner, and Jack the Ripper were forming a group called the P.H.I.R.M. (see Phrack Pro-Phile 3 this issue) and that Lightman wanted to be in and to lead the group as a subsidiary of The Administration (like Team Hackers'86). They refused, and took away his cosysop access on their boards. Sir Gamelord says that Lightman is making this whole Southwestern Bell Security story up to get revenge on them.

However, Lightman claims that he was asked to be a member of The P.H.I.R.M., but refused because he didn't have the time. He did however recommend Digital Logic, Ford Prefect, and The Lineman (sysop of the Lost City Of Atlantis).

David Lightman has since received his disks back but will not be around on boards very much. The decision is up to you. I will try to get more information out on boards as soon as possible.

Information provided by David Lightman and Sir Gamelord

Ninja NYC/Sigmund Fraud; Close Calls

Sigmund Fraud, famous for his incredible proficiency at "social engineering" is now laying incredibly low after what is considered the closest call of his life.

The following must be regarded as pure rumor for the sake of non-incrimination of those involved. You readers know what I mean.

The story goes like this, Sigmund Fraud and a friend (the same one who went to the Telepub'86 meeting in New York, however he has no handle) were able to convince their local Bell company that they were another part of the same company and were able to acquire; Call Forwarding, Call Waiting, Speed Calling, and Three Way Calling on to Sigmud Fraud's personal phone line. Since SF's friend lived in a Cross Bar (X-Bar) area he could not get these services so they decided to get them for Ninja NYC. They told him about it later.

Less than a week later, on the first Thursday of May 1986, Ninja NYC came home to discover 2 telco agents awaiting his return from school. What it boiled down to was that "he" had committed several felonies and to make matters worse, the people at the local Bell company identified Ninja NYC's voice as being the caller, AND HE ISN'T THE ONE WHO MADE THE CALL!!!! What it finally boiled down to was that Ninja NYC had really received a very scary personal warning.

About this same time Sigmund Fraud is getting home and to his great dismay, all of his new found phone features have been turned off!!?! Sometime later (most likely after the telco agents had left) Sigmund gets a call from Ninja NYC. Ninja NYC of course tells him everything that had happened and warned him that he was next. Sigmund immediately called me. We both thought Sigmund was doomed and would be picked up very soon.

However this was not the case. The agents didn't show up and Sigmund had been given a golden opportunity to dump all his illegal items and get his story right. That night I received a call from Slave Driver and Sigmund call me on three-way and we discussed what to do next. The problem was that Sigmund didn't want to get rid of his illegal items. He had boxes, manuals, notebooks, and even a PBX in his room. I told he had 2 choices; Choice A: SF gets rid of his shit somewhere anywhere, and the telcos don't get any more evidence or, Choice B: SF leaves the stuff where it is, the telcos come over and take it and SF gets nailed worse.

When I left the conversation SF was still discussing what he should do. The next day, he was not visited by the telcos, he was not busted, but instead received a call from his local bell company and was given a very strong verbal warning.

Since that time, He has stopped answering his personal phone and believes that line to be monitored. Ninja NYC is almost definitely being monitored and people have been asked not to call him.

Of course that didn't stop Daniel Zigmond from calling him. This was in an attempt to help Sigmund Fraud, but regardless may have done more damage than good.

Information Provided by
Sigmund Fraud/Slave Driver/Knight Lightning

Telecomputist; Printed Newsletter June 8, 1986

From: Forest Ranger and "TeleComputist" staff,
To: You!

I have drafted the idea for a newsletter and I stress the word newsletter. TWCB had promised everyone a 40+, glossy page magazine for an outrageous amount. I do not want to say that we are taking TAP over because we are not, but instead making amends for what TWCB did not do. To show our sincerity we will be offering the first issue free. It will be your basic newsletter with exceptional articles from experienced phone phreaks, computer hackers, and

telecom buffs. Each issue will be a set four pages but since this is the grand opening issue it will be longer (20 pages). For the first free issue please send a postage paid, self addressed envelope to:

TeleComputist Newsletter
P.O. Box 2003
Florissant, Mo. 63032

Also, please send subscriptions to the same address. The subscription fee for the newsletter will be twelve dollars a year, fifty cents for back issues. This is a monthly circulation and we encourage letters.

The "TeleComputist" Staff includes:

Forest Ranger/Data Line/Reverend Enge
Ax Murderer/Chris Jones/Knight Lightning/Taran King/Mad Molester

Information Provided by Telecomputist Staff