

JULY / AUGUST 1995

In This Issue: CHAPTERS THREE AND FOUR of THE INTERNET TUTORIAL by Al Wagner

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INTERNET TUTORIAL - CHAPTER THREE by Al Wagner

Welcome once again to the 6809 Express Library Car. With this session we cover another three "days" listings. The first and the third of this group cover someof the do's and don't's of being on the Internet. Once you get up on the net, you will find them broken all the time. Sometimes the infraction is ignored altogether. Sometimes a "flame war" results. (Flame War = an exchange of irrate letters complaining about or directly putting down the perpetrator of the infraction.) Occasionally, depending on the severity of the infraction, it results in the individual or organization losing their net privileges. Keep in mind that being on the net is a privilege. You are literally being invited into someone else's computer. It's like visiting someone that you only know on a very superficial basis. You don't trash their house and you don't over stay your welcome. But, that's enough of my ravings. I'll let you read what our tutor has to say.

Date: Thu, 16 Feb 1995 19:48:56 -0600 (CST) From: Roadmap Error Processor <CRISPEN@UA1VM.UA.EDU> Subject: MAP07: NETIQUETTE Sender: ROADMAP WORKSHOP SUBSCRIPTION LIST <ROADMAP@UA1VM.UA.EDU> Organization: Roadmap For the Information Superhighway

MAP07: NETIQUETTE

"When thou enter a city abide by its customs." -- The Talmud

We've covered a lot of ground this week. I've shown you the differences between each of the three levels of connectivity, I've taught you how to read an e-mail address (and I *still* don't think that "p-crispy-one" is funny!), I've burned it into your mind that you send letters to the list address and commands to the LISTSERV address, and I even let James Milles introduce you to the world of other mailing list programs.

The Internet, however, is made up of more than computers and commands. All of the computers and commands would be useless if it weren't for the people who used the computers and commands. The commands are neat, but it is the PEOPLE who make the Internet what it is. The problem is that every grouping of people develops its own culture and common rules that governs the behavior of the people.

Today's lesson is going to give you an insider's look at how to avoid some of the mistakes that EVERYONE makes when they start out on the Internet. If you can take what is said in this lesson to heart, you are going to find that your travels on the Information Superhighway are going to be a whole lot smoother.

The following "Netiquette" guide (that's the common way to describe the etiquette of the Internet) was written by my father, the Rev. Bob "Bob" Crispen. I think you'll soon see where my sense of humor comes from :)

In fact, it was because of my dad that I first got onto the Internet (I got an e-mail account so that I could e-mail him and ask him for money).

NETIQUETTE by the Rev. Bob "Bob" Crispen (Patrick Crispen's daddy)

One of these days you're going to get tired of Web surfing or listening in on LISTSERVs, IRCs, Usenet newsgroups or whatever, and you're going to want to say something yourself. At that moment your life will change. Let's see if we can't make that a change for the better.

Evangelism:

Everyone is tempted from time to time to evangelize, to stride boldly into the enemy's camp and throw down the gauntlet. We will never see the end of people who pop up on comp.sys.intel praising Macs and Amigas; who send mail to the SKEPTIC list that flying saucers really, truly do exist; who enlighten the Buddhist newsgroups that they're all bound for hell, and on and on.

In the entire history of the net, no one has managed to do this without looking like a complete idiot. If you believe you are the one person who will succeed where millions have failed, then you're ready to learn about ...

Flames:

There is nothing you can say that won't offend somebody:

>It's a bright, sunny day today.

You filthy *@!?\$, what have you got against Seattle?

Flames (violent verbal expressions of disapproval), misunderstandings, overreactions, and hurt feelings are par for the course. Four lessons from experience:

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(1) Hedge your bets. Rather than saying, "Metal rules! Death to all that appose!!" try saying "In my humble opinion (often abbreviated IMHO) metal bands perfectly express my feelings, choices, and lifestyle. Your mileage may vary" (another net cliche', less frequently abbreviated YMMV). By the way, BTW is another frequent net abbreviation, for what it's worth (FWIW).

(2) Apologize. When misunderstanding is the culprit, and especially if you respect the person who misunderstood, take the blame on yourself for being unclear, apologize, say what you meant more clearly (if appropriate) and put it behind you. As in real life (remember that?) people who are quick to anger are often equally quick to forgive.

(3) Avoid flame bait (conduct which gravely offends the norms, mores and folkways of a particular group). "Now wait a minute!" you say. "Do you mean that something that's accepted behavior on one list or newsgroup will draw dozens of stinging, ridiculing comments in another?" I sure do. What can you do? Lurk a while before you post. Read what's said like an anthropologist, trying to discover what the big no-nos are. The beginning of a school term is a wonderful time to do this, as you will observe the clueless newbies who weren't smart enough to read this paragraph being torn to shreds. There are some things you should NEVER do, and we'll list them in a minute, but let's get to the last bit of advice.

(4) Bow down to the group's gods. In every Usenet newsgroup and listserv mailing list there are old, gray heads who have earned the respect of everyone in the group. For example, amongst the subscribers to the list discussing the late American bandleader Stan Kenton are the producer of a Kenton box set and the authors of definitive Kenton biographies and discographies. You are entirely ignorant compared to those people. Never pretend you're anything else. They would dearly love to help you -- to answer a question, help you find a rare record -- but you'll always come out second best in a head-butting contest with them.

Still other group members have earned their status through long service. Friendships have developed over many years, and marriage is not unknown. By commenting abusively to or about one of these gods, you'll earn not only her enmity, but the enmity of all of her friends - which may be everyone in the group but you!

Dos and don'ts (or how to avoid most flames):

(1) DON ^r T include the entire con- tents of a previous posting in your reply.	(1) DO cut mercilessly. Leave just enough to indicate what you're responding to. NEVER include mail headers except maybe the "From:" line. If you can't figure out how to delete lines in your mailer software, paraphrase or type the quoted material in.
(2) DON'T reply to a point in a posting without quoting or para- phrasing what you're responding to and who said it. Reason: a dozen postings may occur between the original message and your reply. At some sites your reply may get there before the original.	 (2) DO quote (briefly) or paraphrase. If the original "Subject:" line was "Big dogs" make sure yours says "Re: Big dogs". Some REPLY functions do this automatically. By net convention, included lines are preceded by ">" (greater-than signs). Some mail editors and newsreaders do this automatically. Others require you to do it manually or set the "indent character" to ">".
(3) DON'T send a message saying "Why doesn't anybody say anything about X?" or "Who wants to talk about X?"	 (3) It's always a risk to start a new topic (often called a thread). The group may have just finished a long, bitter war about that very subject. But if you want to take

the risk, SAY SOMETHING yourself

about the subject you're raising.

(4) DON'T send lines longer than 70 characters. This is a kindness to folks with terminal-based mail editors or newsreaders. Some mail gateways truncate extra characters turning your deathless prose into gibberish.

(5) DON'T SEND A MESSAGE IN ALL CAPS. CAPITALIZED MESSAGES ARE HARDER TO READ THAN LOWER CASE OR MIXED CASE.

(6) DON'T betray confidences. It is all too easy to quote a personal letter in a posting to the entire group.

(7) DON'T make statements which can be interpreted as official positions of your organization or offers to do business. Saying "Boy, I'd sure like to have one of them Crays" could result in a truck at your loading dock and a bill in the mail even larger than your student loan.

(8) DON'T rely on the ability of your readers to tell the difference between serious statements and satire or sarcasm. It's hard to write funny. It's even harder to write satire. (4) Some mail editor tools only SEEM to insert line breaks for you, but actually don't, so that every paragraph is one immense line. Learn what your mail editor does.

> (5) DO use normal capitalization. Separate your paragraphs with blank lines. Make your message inviting to your potential readers.

(6) DO read the "To:" and "Cc:" lines in your message before you send it. Are you SURE you want the mail to go there?

(7) DO treat every post as though you were sending a copy to your boss, your minister, and your worst enemy.

(8) DO remember that no one can hear your tone of voice. Use emoticons (or smilies) like :-) or ;^)
- turn your head counterclockwise to see the smile. You can also use caps for emphasis or use net conventions for italics and underlines as in: You said the guitar solo on "Comfortably Numb" from Pink
Floyd's _The Wall_ was *lame*? Are you OUT OF YOUR MIND???!!!

(9) DON'T make a posting that says (9) DO remember the immortal words

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nothing but "Me, too." This is most annoying when combined with (1) or (2) above. Ditto for "I don't know." of Martin Farquhar Tupper (1810-1889): "Well-timed silence hath more eloquence than speech."

A word to people living in the United States: the net is international. If you tell a Belgian she's being un-American, SHE ISN'T OFFENDED. OF COURSE she's un-American; you're un-Belgian. She doesn't care about being lectured on the First Amendment and American values. She doesn't HAVE a First Amendment, and she thinks Belgian values are BETTER. We Americans have made fools of ourselves by forgetting this everywhere else. Let's try to behave a little better on the net.

Finally, many groups have had the sense to write down some of their norms and folkways in a frequently asked questions (FAQ) list along with (what else?) the answers to frequently asked questions. Many Usenet FAQs are posted monthly or so on the news.answers. Listowners of LISTSERVs are often quite willing to mail you the FAQ for the list. In fact, they may have already told you where it is in the letter you get welcoming you to the list.

With all we've said above, and with all the help newsgroup moderators and listowners are providing to newcomers, it almost seems like you'd have to work at it to go charging in with your mouth open and your eyes and ears shut, thereby aggravating and alienating some otherwise perfectly nice people. The good Lord gave us two eyes and two ears and one mouth to remind us of that very thing. But he gave us ten fingers, and here we are.

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Now a note from me:

HOMEWORK:

There are DOZENS of Netiquette guides on the Internet, although IMHO none of them are as good as my dad's :) (1) Actually, Arlene Rinaldi has a HUGE Netiquette guide that I am going to show you how to retrieve using file transfer protocol, gopher, and the WWW later on in the workshop.

So your homework today is:

Save this lesson
 Re-read this lesson several times.

3. Have a GREAT weekend!

NOTES:

(1) My smileys don't have noses :)

Date: Tue, 21 Feb 1995 09:14:21 -0600 (CST) Subject: MAP08: USENET

MAP08: USENET

"Ideal conversation must be an exchange of thought, and not, as many of those who worry most about their shortcomings believe, an eloquent exhibition of wit or oratory." -- Emily Post, Etiquette 4

The following text comes from the Electronic Frontier Foundation's (1) "EFF's Guide to the Internet" and is reprinted, in its entirety, with permission:

Imagine a conversation carried out over a period of hours and days, as if people were leaving messages and responses on a bulletin board. Or imagine the electronic equivalent of a radio talk show where everybody can put their two cents in and no one is ever on hold.

Unlike e-mail, which is usually "one-to-one," Usenet is "many-tomany." Usenet is the international meeting place, where people gather to meet their friends, discuss the day's events, keep up with computer trends or talk about whatever's on their mind. Jumping into a Usenet discussion can be a liberating experience. Nobody knows what you look or sound like, how old you are, what your background is. You're judged solely on your words, your ability to make a point.

To many people, Usenet IS the Net. In fact, it is often confused with Internet. But it is a totally separate system. All Internet sites CAN carry Usenet, but so do many non-Internet sites, from sophisticated

Unix machines to old XT clones and Apple IIs.

Technically, Usenet messages are shipped around the world, from host system to host system, using one of several specific Net protocols. Your host system stores all of its Usenet messages in one place, which everybody with an account on the system can access. That way, no matter how many people actually read a given message, each host system has to store only one copy of it. Many host systems "talk" with several others regularly in case one or another of their links goes down for some reason. When two host systems connect, they basically compare notes on which Usenet messages they already have. Any that one is missing the other then transmits, and vice-versa. Because they are computers, they don't mind running through thousands, even millions, of these comparisons every day.

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Yes, millions. For Usenet is huge. Every day, Usenet users pump upwards of 40 million characters a day into the system -- roughly the equivalent of volumes A-G of the Encyclopedia Britannica. Obviously, nobody could possibly keep up with this immense flow of messages. Let's look at how to find conferences and discussions of interest to you.

The basic building block of Usenet is the newsgroup, which is a collection of messages with a related theme (on other networks, these would be called conferences, forums, bboards or special-interest groups). There are now more than 5,000 of these newsgroups, in several different languages, covering everything from art to zoology, from science fiction to South Africa.

Some public-access systems, typically the ones that work through menus, try to make it easier by dividing Usenet into several broad categories. Choose one of those and you're given a list of newsgroups in that category. Then select the newsgroup you're interested in and start reading.

Other systems let you compile your own "reading list" so that you only see messages in conferences you want. In both cases, conferences are arranged in a particular hierarchy devised in the early 1980s. Newsgroup names start with one of a series of broad topic names. For example, newsgroups beginning with "comp." are about particular computerrelated topics. These broad topics are followed by a series of more focused topics (so that "comp.unix" groups are limited to discussion about Unix). The main hierarchies are:

bionet Research biology

bit.listserv	Conferences originating as Bitnet mailing lists
comp	Computers and related subjects
misc	Discussions that don't fit anywhere else
news	News about Usenet itself
rec	Hobbies, games and recreation
sci	Science other than research biology
SOC	"Social" groups, often ethnically related
talk	Politics and related topics
alt	Controversial or unusual topics; not
	carried by all sites

Business

biz

In addition, many host systems carry newsgroups for a particular city, state or region. For example, ne.housing is a newsgroup where New Englanders look for apartments. A growing number also carry K12 newsgroups, which are aimed at elementary and secondary teachers and students. And a number of sites carry clari newsgroups, which is actually a commercial service consisting of wire-service stories and a unique online computer news service.

unique Usenet reading list. But there are a few newsgroups that are particularly of interest to newcomers. Among them:

news.announce.newusers	This group consists of a series of
articles that explain various facets of	
Usenet.	

- news.newusers.questions This is where you can ask questions about how Usenet works.
- news.announce.newsgroups Look here for information about new or proposed newsgroups.
- news.answers Contains lists of "Frequently Asked Questions" (FAQs) and their answers from many different newsgroups. Learn how to fight jet lag in the FAQ from rec.travel.air; look up answers to common questions about Microsoft Windows in an FAQ from comp.os.ms-windows; etc.
- alt.internet.services Looking for something in particular on the Internet? Ask here.

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And now for a few words from "p-crispy-one":

The EFF (1) notes that daily input into Usenet is equivalent to volumes A-G of the Encyclopedia Britannica. You should be warned that the information on Usenet is of *much* lower quality. Anybody with an opinion can post anything in a Usenet newsgroup, whether they know what they're talking about or not. If you want to bet your grade in school or your company's or organization's future on information you get from Usenet, please e-mail me first -- I have some bargains in real estate (including a great price for a bridge in Brooklyn) I'd like to discuss with you.

There are more Usenet newsgroups, dedicated to the discussion of more topics, than you could even imagine. I recently heard that there are over 6,000 different Usenet newsgroups, although I think that number may be a little low. The Osborne/McGraw-Hill Internet Yellow Pages has fifty-five pages of Usenet newsgroup listings (p. 363-418).

What are some of these newsgroups? Here is a short list taken from the Osborne/McGraw-Hill Internet Yellow Pages (and reprinted by permission):

alt.abuse-recovery alt.barney.dinosaur.die	Helping victims of abuse recover die.die Hate and excoriation of Barney th Dinosaur	
bionet.jobs bit.listserv.xerox-l biz.books.technical	Job opportunities in biology Xerox products Selling and buying books	
clari.biz.top comp.cog-eng 	Top business news Cognitive engineering	

As you can see, the topics are pretty diverse. I also want you to notice something about the group names. All of the Usenet group names have periods (or, in Internet language, "dots") in them. That is a great way to see if a group is a Usenet group or a mailing list group (which we covered last week). GROUP TYPE

gnu.emacs.sour	ces Usenet newsgroup
RHA-L	Mailing list
rec.birds	Usenet newsgroup
Navigate	Mailing list

So, how do you read the posts in a Usenet newsgroup? Well, you have to have access to a Usenet newsreader.

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There are literally DOZENS of different Usenet readers out there. Your local Internet provider will be able to tell you what Usenet reader you have access to, and will probably also be able to tell you some of your reader's commands (remember that in a lot of Usenet readers the commands are case sensitive).

Some of the more important Usenet reader commands that you need to know are:

- How to access your Usenet reader
- How to access a particular newsgroup
- How to subscribe/unsubscribe to a particular newsgroup
- How to read a post
- How to send a post
- How to respond to a posting by e-mail
- How to save a post
- How to move from one newsgroup to another
- How to exit your Usenet reader

HOMEWORK:

 Ask your local Internet service provider if you have Usenet access. If you do, ask your provider for a handout or help file which lists the commands for your reader. (Most Usenet readers also have a pretty extensive, albeit confusing, help screen. If you can get into your reader, you may want to check out this help screen).

If you don't have Usenet access, or if your provider does not have a help file, please be patient. When we get to the lessons on Gopher (in about 2 weeks), I'll show you some tricks that will help you around this problem :)

2) If you have access to either the rn or nn newsreader (two of the most used newsreaders around), I have two files that may help you. Again, use the get command to get them from the LISTSERV file server at University of Alabama.

nn users: rn users: filename filetype filename filetype

nn	intro	m	intro
nn	cmds	m	cmds

NOTES:

(1) We'll talk about the Electronic Frontier Foundation on Wednesday.

SOURCES:

The text in this lesson comes from the Electronic Frontier Foundation's "EFF's Guide to the Internet, v.2.3" and is reprinted by permission.

Date: Mon, 20 Feb 1995 19:11:07 -0600 (CST) Subject: MAP09: SPAMMING AND URBAN LEGENDS

MAP09: SPAMMING AND URBAN LEGENDS

"Well there's egg and bacon; egg, sausage and bacon; egg and spam; bacon and spam; egg, bacon, sausage and spam; spam, bacon, sausage and spam; spam, egg, spam, spam, bacon and spam; spam, spam, spam, egg and spam; spam, spam, spam, spam, spam, spam, baked beans, spam, spam, spam and spam; or lobster thermidor aux crevettes with a mornay sauce garnished with truffle pate', brandy and a fried egg on top of spam." -- Monty Python's Flying

Circus

It's possible, even easy, to get a list of every Usenet newsgroup and publicly accessible LISTSERV list. With very little thought, you can convert the list into a program that will mail the same message to every single one of these groups. ٩

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Doing this is called "spamming", after the Monty Python sketch quoted above.

During the past year, there have been three such mailings that have "succeeded": One poster said that the end of the world was nigh; another advertised the services of their law firm in the so-called "Green Card Lottery" message; and a third, labeled "MAKE.MONEY.FAST" was the Usenet equivalent of the old chain letter.

Of the three, the one that got the most attention was the Green Card Lottery spam (1). According to the Washington Post, the law firm

in question considered the Internet to be "an ideal, low-cost and perfectly legitimate way to target people likely to be potential clients."

Many people felt differently, though. They felt that, first, the Internet is the wrong place to conduct commercial business. Many of the charters of the Usenet newsgroups and LISTSERVS specifically prohibit offers to do business. The few that do accept offers restrict the buyers and sellers to individuals, not businesses. The net has had a long tradition of non-commercialism, ever since its founding days as ARPAnet.

Second, the net isn't free. One popular newsreader, "trn", displays the following message before it lets you post:

This program posts news articles to thousands of machines throughout the enter {sic} civilized world. Your message will cost the net hundreds if not thousands of dollars to send everywhere. Please be sure you know what you are doing.

Are you absolutely sure you want to do this? y/n

Since the spammers are alleged to have posted to over 6,000 groups, they surely spent quite a bit of somebody's money.

Finally, people who gather together to discuss a topic get annoyed when someone discusses something outside the group's charter. They often complain to the newsgroup itself, thereby increasing the traffic even further.

Note that spams generally aren't crossposted. That means that every news host will receive, process, and make available to its readers a separate copy of the spam for every newsgroup. Of course, "courteous" spammers who use crossposting can make things even worse. In one recent spam, not only was the spam sent to all sorts of unrelated newsgroups, but so were the angry replies! (The people replying were guilty of not reading their "To:" and "Cc:" lines before they posted).

WHAT TO DO WHEN YOU SEE A SPAM:

First, NEVER reply to the group. The spammer won't read it. He's interested in talking, not listening, and he isn't a list member or a regular reader. Your angry posting will only annoy the other members of the group, and won't affect the spammer in the slightest.

Second, if you have a lot of time on your hands, you may read the responses of members who ignored my first bit of advice. On comp.os.vxworks, for example, one (moderately clueless) member posted (in response to the end of the world spam) "This isn't a religious newsgroup!" An old-timer responded "I think that very much depends on the topic. ;)." (that's a winking smiley)

Third, if you have even more time on your hands, reply to the poster at his own mailbox. But you may not get satisfaction. Quite often spammers hit and run, and by the time you get back to yell at them, they've closed out their accounts (or if their site administrator is on her toes, they'll have had their accounts closed by the administrator).

Fourth, if you're even angrier at the spammer, you can write to the administrator of his site. If the spammer is clown@circus.com, his administrator is postmaster@circus.com.

Fifth, and this is net abuse that can get you removed by your site administrator, you may want to mailbomb the offender. That consists of sending him lots and lots of e-mail until his site or his account crashes. And, yes, it is perfectly possible to make a machine crash, taking down all its users, by sending too much mail to a person on that machine. The same thing can happen to gateways processing the mail.

What I do is *think* about mailing offenders the Manhattan telephone directory. In PostScript. I enjoy the thought without abusing the net myself. Yes, you have it within your power to spam the world, or to mailbomb (mostly innocent) people. You also have it within your power to buy a gun and start shooting at people. That doesn't mean you have to do it.

URBAN LEGENDS (ULs):

Another example of spamming on a much smaller scale, at least in my mind, are the urban legends that simply refuse to die. There is no better example of an urban legend than the story surrounding Craig Shergold (this is a TRUE urban legend, btw).

"There once was a seven-year-old boy named Craig Shergold who was diagnosed with a seemingly incurable brain tumor. As he lay dying, he wished only to have friends send him postcards. The local newspapers got a hold of the tear-jerking story. Soon, the boy's wish had changed: he now wanted to get into the Guinness Book of World Records for the largest postcard collection. Word spread around the world. People by the millions sent him postcards.

Miraculously, the boy lived. An American billionaire even flew him to the U.S. for surgery to remove what remained of the tumor. And his wish succeeded beyond his wildest dreams — he made the Guinness Book of world records.

But with Craig now well into his teens, his dream has turned into a nightmare for the post office in the small town outside London where he lives. Like Craig himself, his request for cards just refuses to die, inundating the post office with millions of cards every year. Just when it seems like the flow is slowing, along comes somebody else who starts up a whole new slew of requests for people to send Craig post cards (or greeting cards or business cards -- Craig letters have truly taken on a life of their own and begun to mutate). Even Dear Abby has been powerless to make it stop." (2)

The current variation on the Craig story that is floating around

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the Internet is that you should send your cards to the Make A Wish foundation in Atlanta, Georgia. Please do not do this. Make A Wish -- a foundation that grants the dying wish of children with terminal illnesses -- has enough to worry about.

Other urban legends currently making their way around the Internet include a story that gangs are driving around at night with their headlights out and then shooting anyone who "flashes them" with their high beam headlights, and that there is a "virus" called CD-IT that is eating the hard-drives of stupid people. The "lights out" story may be true, but the police departments in Chicago, New York City, and Los Angeles all told me over the phone that the story was false (I called). The CD-IT story is true, but it is FOUR YEARS OLD!!!

I am going to share with you the number one rule for Internet discussion group survival: only post things that are relevant to the topic that the discussion group was created to discuss. The Craig Shergold story would have died a peaceful death years ago if people had only remembered the "relevant posting" rule.

TOMORROW: Internet Security

HOMEWORK:

- 1) If you are really interested in urban legends, there is a Usenet newsgroup (alt.folklore.urban) that you should check out.
- 2) If you want to see a cute example of what a flame war really looks like, my dad recently recorded a flame war on a relatively calm Usenet group. That file is now on the LISTSERV file server at the University of Alabama under the name FLAME WAR

Please feel free to GET this file (see MAP02: LISTSERV FILE SERVER COMMANDS) for a review of the GET command.

FOR MORE INFORMATION:

The November/December 1994 edition of Internet World magazine has several good articles about Usenet.

SOURCES:

 from "Green Card Lottery -- The Full Story" posted on alt.internet.services on June 2, 1994

(2) from the "EFF's Guide to the Internet." Reprinted by permission.

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To unsubscribe from any Roadmap workshop, please send an e-mail letter to LISTSERV@UA1VM.UA.EDU which says UNSUB * in the body of your letter.

The address that sent this e-mail letter (CRISPEN@UA1VM.UA.EDU) is actually the address of an automated error processor. Please DO NOT reply to this e-mail letter as the error processor will consider your reply to be an error message and will delete your letter unread. To contact Patrick Crispen, please use my PCRISPE1@UA1VM.UA.EDU address.

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' <u></u> .~&	Warning: squirrels.

I hope this tutorial is proving useful to you. Let me hear some feedback from you. We've only covered 9 of 27 sections to this tutorial. A little quick arithmetic tells us that if the other sections are approximately the same size, we are about one third into the tutorial. Well, that's all for this session. Happy computing.

INTERNET TUTORIAL - CHAPTER FOUR by Al Wagner

Welcome to the Library car of the 6809 Express and the fourth installment in our series on the Internet. The Internet is a fun place to work and play, but just like working or playing in any city, you have to be aware that there are some not-so-nice people around the neighborhood. The MAP10 section to this installment deals with the basics of how to protect yourself from being "taken advantage of" by these low life types.

Map11 and MAP12 will get into how to do a TELNET session. This is where you get to use your own home computer as a terminal on a mainframe at some university or other organization. You can logon to computers all over the world and get information on almost any subject you can conceive. One rule of decency not mentioned in the following article is to be consious of the time of day at the location of the computer to which you are logging on. That is to say, be concious that if its 5:00pm in Pennsylvania, it is still 2:00pm at the University of Southern California, Berkly and they are probably still in the middle of doing their daily bussiness.

We as visitors are welcome into these sites only when it will not disrupt the main purposes of the computer's reason for existance. As much as we may like to think its only reason to exist is for our personal use, that is not the case. These mainframes were installed by their owners to do research and other computational chores for the

owning institution. Allowing us in is a privelge that is given only as long as it dosen't interfere with the intended work the computer is to perform. Logging on after normal business hours is the safest bet. Maybe even hedge that a bit by a few hours to allow for someone staying late to get a job done. This may not be easy if the place you are trying to access is on the other side of the globe. Perhaps you can wait until the weekend. One other caveat. Just because it is a holiday where you are, don't necessarily mean it is a holiday where you're trying to access. Be considerate and THINK first!

Well, again that's enough of my rantings. Now here is the wisdom of our tutor.

Date: Tue, 21 Feb 1995 22:55:32 -0600 (CST) From: Roadmap Error Processor <CRISPEN@UA1VM.UA.EDU> Subject: MAP10: INTERNET SECURITY Sender: ROADMAP WORKSHOP SUBSCRIPTION LIST <ROADMAP@UA1VM.UA.EDU> To: Multiple recipients of list ROADMAP <ROADMAP@UA1VM.UA.EDU> Reply-to: Roadmap Error Processor <CRISPEN@UA1VM.UA.EDU> Organization: Roadmap For the Information Superhighway

MAP10: INTERNET SECURITY

"Cyberspace, in its present condition, has a lot in common with the 19th Century West. It is vast, unmapped, culturally and legally ambiguous, verbally terse (unless you happen to be a court stenographer), hard to get around in, and up for grabs. Large institutions already claim to own the place, but most of the actual natives are solitary and independent, sometimes to the point of sociopathy. It is, of course, a perfect breeding ground for both outlaws and new ideas about liberty." - John Perry Barlow, Crime and Puzzlement Ļ

I would love to tell you that the Internet is a safe place and that there is no reason for you to protect your password. Unfortunately, there are a LOT of people out there who would LOVE to break into your account and "use your account as a base for operations (1)." How prevalent is this? According to Mike Godwin, Chief Legal Counsel for the Electronic Frontier Foundation, it's "fairly common." (1)

The main defense against people who want to break into your account a.k.a. "crackers" -- is your password. Keep your password secure, and you should never have anything to worry about. Give your password to others, or write your password down and put it near your computer, and ... well, you get the picture.

There are some KEY points you need to remember to protect yourself and your account:

- NEVER give your password to *ANYONE* (1). The whole purpose of having a password in the first place is to ensure that *NO ONE* other than you can use your account.
- NEVER write your password down, and especially never write your password anywhere near your computer.
- NEVER let anyone look over your shoulder while you enter your password. "Shoulder Surfing" is the most common way that accounts are hacked.
- NEVER e-mail your password to anyone.
- DO change your password on a regular basis (1). There is no better way to thwart a would-be cracker than to change your password as often as possible. Your local Internet service provider will be able to tell you your system's recommendation

on how often you should change your password, but a good rule of thumb is to change it at least every three months.

- DON'T pick a password that is found in the dictionary (1). When you set your password, it is encrypted and stored into a file. It is really easy for a "cracker" to find your password by encrypting every word in the dictionary, and then looking for a match between the words in his encrypted dictionary and your encrypted password. If he finds a match, he has your password and can start using your account at will.
- DON'T use passwords that are foreign words. The hacker can get a foreign dictionary, and ...
- NEVER use your userid as your password. This is the easiest password to crack.
- DON'T choose a password that relates to you personally (2) or that can easily be tied to you. Some good examples of BAD passwords are: your name, your relatives' names, nicknames, birthdates, license plate numbers, social security numbers (US), work ID numbers, and telephone numbers.
- DO use a password that is at least eight characters long and that has a mix of letters and numbers. The minimum length of a password should be four to six characters long.
- NEVER use the same password on other systems or accounts.
- ALWAYS be especially careful when you telnet or rlogin to access another computer over the Net. When you telnet or rlogin, your system sends your password in plain text over the Net. Some crackers have planted programs on Internet gateways for the purpose of finding and stealing these passwords. If you have to telnet frequently, change your password just as frequently. If you only telnet occasionally, say, for business trips, set up a new password (or even a new account) just for the trip. When you return, change that password (or close out that account).

The best passwords — the ones that are the easiest for you to remember, and the ones that are the hardest for crackers to crack are passwords that are like those fake words you used to create when you would cram for a test. For example, to remember that "the Law of Demand is the inverse relationship between price and quantity demanded," I created the word TLODITIRBP&QD. NO ONE could hack that as a password. Best of all, its EASY to remember (well, its easy for an economist to remember). s,

Here are a couple of other good passwords:

Sentence Possible password

In 1976 I moved to Tulsa, Oklahoma I76IMTTO The conference lost 12,000 dollars TCL12KD U of A Crimson Tide Football is #1 UACTFI#1

Sentences are EASY to remember, and they make passwords that are nearly

impossible to break (and please do NOT use these sample passwords as your own).

Do NOT use well known abbreviations (for example: wysiwyg), and do NOT use keyboard patterns (for example: qwerty) as your password.

If you notice weird things happening with your account:

- 1. Change your password IMMEDIATELY!
- 2. Tell your local Internet service provider about it.

It is very common for someone whose account has been hacked to dismiss the signs that the account has been hacked as technical problems with the system. However, when one account is hacked, it very often puts the whole system at risk.

Finally, there is one last thing that I want to say before I close: I feel that "hacking" and "cracking" so violates the spirit of the Internet that I will do everything in my power to help put the overgrown babies who engage in such activities where they belong -behind bars. Until that time comes, however, I'm going to change my password as often as possible.

HOMEWORK

Contact your local Internet service provider, find out how you can change your password, and CHANGE YOUR PASSWORD!!

SOURCES:

- (1) from a telephone interview with Mike Godwin, Chief Legal Counsel for the Electronic Frontier Foundation.
- (2) comments from the Computer Law Association, as quoted in Bottom Line Personal 6/1/94 p.8 (in Edupage 5.22.92)
- (3) quoted from Edupage 06.09.94 (from a story in the Tampa Tribune 6/8/94 Baylife 5)

Date: Wed, 22 Feb 1995 19:30:32 -0600 (CST) MAP11: TELNET (PART ONE)

"Thanks to the interstate highway system, it is now possible to travel across the country from coast to coast without seeing anything." -- Charles Kuralt, On the Road

We are about to enter a new section of this workshop. For the past week, we have talked about communicating on a one-to-one basis (e-mail) and on a one-to-many basis (LISTSERV and Usenet).

Today, I'm going to show you how to log in to other computers around the world and take full advantage of the public programs and services that these other computers offer.

There is some bad news, though. Some of you, especially a good number of you with "level one" Internet access, do not have access to TELNET. If this is true for you, please accept my apologies. I promise to make it up to you next week when I show you File Transfer Protocol – and besides, you can always take today's lesson and tomorrow's lesson and bug your local Internet provider into offering TELNET (you can also save this lesson for the day that you do have TELNET access).

With TELNET, the commands that you type on your keyboard are sent from your terminal to your local Internet service provider, and then from your provider to the remote computer that you have accessed. Unlike the LISTSERV commands that you sent last week that took CENTURIES to process (okay, a *slight* exaggeration), TELNET commands (usually) travel so fast that you can't even tell that you are using a remote computer.

So what can you do with this ability to log into remote computers? If your local Internet provider allows it, it is possible for you to TELNET into your account from another city and check your e-mail while you are on vacation or away on business. You can also TELNET into huge databases to do research, or even TELNET into libraries around the world to check if they have a certain book that you are looking for. TELNET also offers an easy entry into the world of Gophers and the World Wide Web for those people who may not otherwise have access to these tools. 3

Last Tuesday (in MAP04: E-MAIL), I showed you that an Internet address for a user looked something like: user@address. Well, since we are no longer interested in the person -- we want to access the computer, not the person -- we can throw away both the "user" and the "@" part. All we care about now is the stuff *after* the @.

TELNET addresses look something like this:

seabass.st.usm.edu	cybernet.cse.fau.edu
bbhost.hq.eso.org	fedworld.gov
128.118.36.5	192.160.13.1

Gee ... that's easy. Also notice that TELNET addresses can be in domain name format (i.e. seabass.st.usm.edu) or in IP address format (i.e. 120.118.36.5). (Note: both the domain name system and the IP address system were discussed in MAP04: E-MAIL).

You may also see TELNET addresses with numbers stuck on the END of them. Those numbers are "port" numbers. Port numbers don't have anything to do with hardware ports on the computer; instead they are (sort of) a way for you to tell the remote computer which program or server you want it to pull up. A TELNET address with a port

number allows you not only to access a remote computer, but to also pull up a specific program or server on that remote computer (BTW, the

standard port number is port 23):

seabass.st.usm.edu 23 cybernet.cse.fau.edu 2010 bbhost.hq.eso.org 6969 fedworld.gov 4242 128.118.36.5 23 192.160.13.1 66

We seem to have the addresses down pat. Now for the fun stuff!

There are seven steps to a successful TELNET session. These steps are all based on simple common sense, and I will explain them all in a minute. But first, here are the seven steps:

- 1. Start-up the TELNET program
- 2. Give the TELNET program an address to connect to (BTW, some really nifty TELNET packages allow you to combine steps 1 and 2 into one simple step!)
- 3. Make a note of what the "escape character" is
- 4. Log in to the remote computer
- 5. Set the "terminal emulation"
- 6. Play around on the remote computer
- 7. Quit

Now let's talk about each of these steps. There are a lot of

s. different

: TELNET software programs around, but each of these programs operate on

the same basic principles. (BTW, my explanation may be a little "mainframe-y" but you will soon discover that you can easily translate my explanation so that you can use TELNET in Windows or on a Macintosh).

Starting the TELNET program is easy. All most of you have to do is type the word TELNET on your command line, and the program will start right up. If you are using Windows or a Macintosh (or an equivalent), double-click on the TELNET icon.

The second step is to give the TELNET program the address of the computer that you want to access. This is where the programs start to differ. Some programs will automatically ask you to enter the address of the remote host, but most won't. If your program does not automatically ask you for the address, you need to type

open <site address> <port number>

on the command line. For example, to get TELNET access to YALEINFO.YALE.EDU 7000, you would type OPEN YALEINFO.YALE.EDU 7000. (If you are using Windows or a Mac, the OPEN command may be located on a pull-down menu). If you don't include the port number, TELNET will automatically assume that you want to connect to port 23.

Remember when I said that some nifty TELNET programs allow you start-up the TELNET program and access the address all in one easy step? Instead of doing the two steps I just went over, you may be able to just type

telnet <site address> <port number>

on the command line (for example: TELNET YALEINFO.YALE.EDU 7000).

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After you have told TELNET which computer you want it to access, and right before you gain access to the remote computer's login screen, you will see something like this:

telnet YALEINFO.YALE.EDU 7000 Trying 130.132.21.53 Port 7000 ... Connected to YALEINFO.YALE.EDU Escape character is ...

This tells you that your TELNET program is trying to access the YALEINFO.YALE.EDU 7000 address, gives the IP address for YALEINFO (remember those from MAP04?), tells you when you are connected, and gives you the escape character. REMEMBER THE ESCAPE CHARACTER! You are going to need it in a second :)

The next step is to log in to the remote computer. Everyone should know how to log in to a computer by now ;) <=== a winking smiley

If you are accessing a public site, the "login" -- the "password" that you need to access the remote computer -- will probably be publicly known. For example, tomorrow I will send you a list of several dozen TELNET sites, including their addresses and logins. Some public sites even TELL you what the login is when you TELNET to them! Heck, some TELNET sites are wide open and do not require a login or password at all!!

The fifth step is to set the terminal emulation. All this means is that you are going to tell the remote site how data should be shown on your screen. The most common terminal emulation setting is VT100, which is the standard for terminal-based communications. If you do not have a VT100 terminal, or a terminal that can pretend its a VT100 terminal. you may have to set your terminal emulation to either your correct terminal type or, if you do not know your your correct terminal type, to a "dumb" terminal emulation.

Fortunately, some TELNET sites automatically take care setting the terminal emulation for you, so you don't even have to worry about it.

If you end up with a screen full of gibberish, chances are you did not use the correct terminal emulation setting. Your best bet if this

happens is to disconnect from the site and try again.

I think you can figure out the sixth step -- play around on the remote computer -- all by yourself :)

The final step is to quit. Some sites are nice and tell you how to do this, but most expect you to figure out how to quit on your own. That is where the escape character comes in!

Remember that once you access the remote computer, every keystroke of yours will be carried out not on your computer but on the remote computer! Typing the escape character (usually the control key and the

right bracket key pressed at the same time) temporarily interrupts your TELNET session and puts you into the TELNET command mode.

Once you are in the command mode, you can use a couple of commands:

- CLOSE Closes your TELNET connection to the remote computer and either returns you to the command mode (if you started in the command mode) or quits TELNET.
- QUIT Quits the TELNET program; if you are connected to a remote computer, QUIT will disconnect you from the remote computer and then quit TELNET.
- SET ECHO If you can't see what you are typing, or if you type and see double, this command should take care of the problem
- <ENTER> (or <RETURN>) Pressing the enter or return key will take you out of TELNET command mode and return you to your TELNET session.

OPEN Opens a connection to a remote computer

So, if you are in the middle of a TELNET session and you decide to quit, you would type the escape character to enter the TELNET command mode, and then type the word QUIT.

One last thing and I will let you go: regular TELNET does not work if you are trying to TELNET to an IBM 3270 mainframe computer. You'll have to use TN3270 instead. It works just like TELNET, only the keys on your keyboard may change a little (IBM uses something called map3270 to lay out the keys, and IBM uses a lot of function keys).

HOMEWORK

Study this lesson carefully. Tomorrow I am going to send you a huge list of TELNET addresses, and turn you loose to wreak havoc on the Internet :)

Also, a not-so-subtle hint: we just ended one section of the workshop and entered a new one. What does the teacher usually give you when a class section ends?

Study hard >:) <----- that's a devil smiley

Date: Thu, 23 Feb 1995 22:23:33 -0600 (CST) MAP12: TELNET (PART 2)

"All work and no play makes Jack a dull boy" -- anon

There are *many* incredible Internet books on the market today. The following listings were copied, with the permission of the publisher, from "The Internet Yellow Pages" written by Harley Hahn and Rick Stout (and published by Osborne McGraw-Hill).

Hahn and Stout's "The Internet Yellow Pages" has over four hundred pages of listings for various e-mail, LISTSERV, Internet mailing list, Usenet, telnet, FTP, Gopher, and finger sites around the world. I went through "The Internet Yellow Pages" and randomly picked forty-one interesting telnet sites. Before I turn you loose on the Internet, there are a few things I want to say:

- The listings give the site's address, and the password required. For example, if the listing said

Address: squirrel.com Password: patrick

you would simply telnet to squirrel.com, and use the password "patrick" :)

- If a site does not let you in, its probably because that site is having some problems. If this happens, just pick another site.
- Please remember that your local Internet service provider only handles the *local* part of your service. It would be pretty foolish to call your local Internet service provider and complain about a problem that you are having with a *distant* computer :)
- Remember the Roadmap code: YOU CAN NOT BREAK THE INTERNET!! The Internet was built to survive a direct nuclear attack ... it can take ANYTHING you do to it. If the Internet can survive me, it can survive you. ;)

- If everything falls apart on you, EXIT TELNET AND TRY AGAIN!

Your homework is to pick one – and ONLY one – of the following sites, and telnet to it (because of the size of this workshop, I am going to have to limit you to one site for now; after the workshop is over, you can visit as many sites as you want) :)

Have fun, and have a safe and happy weekend.

AGRICULTURE

PENpages

International Food & Nutrition Database, National Family

Database,

The 4-H Youth Development Database, agricultural and weather statistics, market news, newsletters, and drought information. This resource is provided by the Penn State College of Agricultural Sciences. ٩

Comment: Login with the two-letter abbreviation for your state (e.g., PA)

Address: psupen.psu.edu

ARCHAEOLOGY

National Archaeological Database

A database of over 100,000 reports of archaeological investigations.

Search by keyword, location, author, and publication date.

Address: cast.uark.edu Login: nadb

AVIATION

DUATS

Aviation weather, PIREPS, and flight plans.

Address (for pilots only): duat.gtefsd.com Login: your last name

BBSs (BULLETIN BOARD SYSTEMS)

FedWorld

FedWorld BBS is sponsored by the National Technical Information Service (NTIS) and is tasked by Congress to help disseminate vast amounts of scientific and technical information along with other, non-technical information. As a central point of connectivity, NTIS FedWorld offers access to thousands of files across a wide range of subject areas. You can find information ranging from environmental protection to small business. Address: fedworld.gov Login: new

BUSINESS AND FINANCE

European Commission Host Organization

ECHO offers scientific, language, business, and research databases in any of 8 languages.

Address: echo.lu Login: echo

Stock Market Report

Daily stock market summary report. Provided as a free service of a2i.

Address: a2i.rahul.net

: Login: Guest Select n, "Menu: Current Info," then "Market Report"

ECONOMICS:

Economic Bulletin Board

The Economic Bulletin Board is operated by the U.S. Department of Commerce. It has 20 separate file areas that contain

current

economic and trade information, such as economic indicators, U.S. Treasury auction results and employment statistics.

Address: ebb.stat-usa.gov Login: guest

EDUCATION:

Higher Education Resources and Opportunities (HERO)

A 24-hour, on-line database service that provides access to valuable information from colleges and universities on scholarships, grants, fellowships, conferences, faculty and

student development, research opportunities, partnership initiatives, and other opportunities for minorities and women ٩

Address: fedix.fie.com Login: new

National Referral Central Master File

The National Referral Center Resources File (NRCM) provides thousands of descriptions of organizations qualified and willing to answer questions and provide information on many topics in science, technology and the social sciences. The file is updated weekly, and each entry in the file lists the name of the organization, mailing address and other information.

Address: locis.loc.gov Password: Organizations

EDUCATION: STUDENTS

Academic Advice

Sound suggestions for attacking poor study habits, relieving stress, and making it happily through college – and life.

Address: health.umt.edu Login: health

ENVIRONMENT

EnviroNet

A menu-driven, user-friendly resource with environmental data in textual, graphic and tabular form.

Address: envnet.gsfc.nasa.gov Login: envnet Password: henniker

U.S. Environmental Protection Agency

A menu-driven system that provides information on the EPA and what they're up to.

Address: epaibm.rtpnc.epa.gov

GAMES

Game Server

Choose from a multitude of exciting on-line games including Bucks, Moria, Tetris, Sokoban, Reversi, Nethack, and many adventure games, including MUDs.

Address: herx1.tat.physik.uni-tuebingen.de Login: games

GEOGRAPHY

Geography Server

Get information about cities, regions, countries, etc., including population, latitude and longitude, elevation, and so on.

Address: martini.eecs.umich.edu 3000

GEOLOGY

Earthquake Information

Get up-to-date news about earthquakes around the world.

Address: geophys.washington.edu Login: quake Password: quake

GOVERNMENT: CONGRESS

Congressional Legislation

These files track and describe legislation (bills and resolutions) introduced in Congress, from 1973 (93rd Congress) to the current Congress (103rd). Each file covers a separate

Congress.

Address: locis.loc.gov Password: Federal Legislation

HEALTH

AIDS Information

AIDS statistics, including daily summaries from newspaper articles, details of those at risk, and the full text of Aids Treatment News.

Address: health.umt.edu Login: health

HISTORY

History Databases

A menu driven interface for databases, electronic texts, journals and other archive sites for American and European historical topics

Address: ukanaix.cc.ukans.edu Login: history

INTERNET

InterNIC Information Services

Find information about people, organizations and resources on the Internet. Also find and retrieve documents from all over the world with lookups by name or keyword.

Address: ds.internic.net Login: guest

Address: rs.internic.net

INTERNET: RESOURCES

Internet Services and resources

The LIBS system is a comprehensive collection of Internet resources presented in an easy-to-use menu-driven interface. The system operates like a bulletin board, but offers direct access to remote resources

Address: garam.kreonet.re.kr Login: nic

Address: nessie.cc.wwu.edu Login: libs

LANGUAGE

Webster's Dictionary Servers

On-line Webster's dictionary and spelling reference. This service repeatedly prompts you for a word. If you misspell a word, the system will prompt you to choose between a number of similar words. Gives spelling, pronunciation and definitions.

Address: 129.79.254.195 2627 Login: webster

LIBRARIES

Carl System

A computerized network of library systems. Search for keywords from any of five databases (library catalogs, current articles, information databases, other library systems, library and system news).

Address: pac.carl.org Login: pac

NEWS

USA Today

Sample articles from USA Today.

Address: freenet-in-a.cwru.edu Login: visitor

Address: freenet-in-b.cwru.edu Login: visitor

Address: freenet-in-c.cwru.edu Login: visitor

Address: yfn.ysu.edu Login: visitor

PHYSICS

National Nuclear Data Center Online Data Service

All the data you could possibly want regarding nuclear physics and statistical measurements, including radiation levels and other information for the U.S. ٩

Address: bnlnd2.dne.bnl.gov Login: nndc

RELIGION: TRADITIONAL

Gabriel's Horn

Returns a Bible verse from the Old or New Testament.

Address: 138.26.65.78 7777

SEXUALITY

Sexual Assault and Sexual Abuse Recovery

Documents and discussions to help deal with traumatic experiences, recover from sexual assault, and prevent acquaintance or date rape.

Address: health.umt.edu Login: health

SPACE

NASA Spacelink

History, current events, projects and plans at NASA.

Address: spacelink.msfc.nasa.gov

SPORTS AND ATHLETICS

NFL Schedule

Get the day's game schedule for your favorite NFL football teams. Enter "help" for help. Full schedules are also available.

Address: culine.colorado.edu 863 NBA schedules are at port 859, NHL at 860, and Major League baseball (HA!!) is at port 862

E TECHNOLOGY

Ξ.

Hot of the Tree (HOTT)

A weekly publication containing excerpts and summaries of information technology articles.

Comment: For the telnet site, type "show hott" after logging in.

Address: melvyl.ucop.edu Login: <your terminal type>

TRAVEL

Subway Navigator

Find the right route in the subways of several of the world's largest cities, including subways in France, Germany, Spain and Canada.

Address: metro.jussieu.fr 10000

WEATHER

Weather Reports

Get up-to-date weather reports for any location on the planet. An easy-to-use interface guides you through the process of selecting a city or location, and then viewing the weather report on-screen or downloading it to your computer. à

Address: downwind.sprl.umich.edu 3000

SOURCE:

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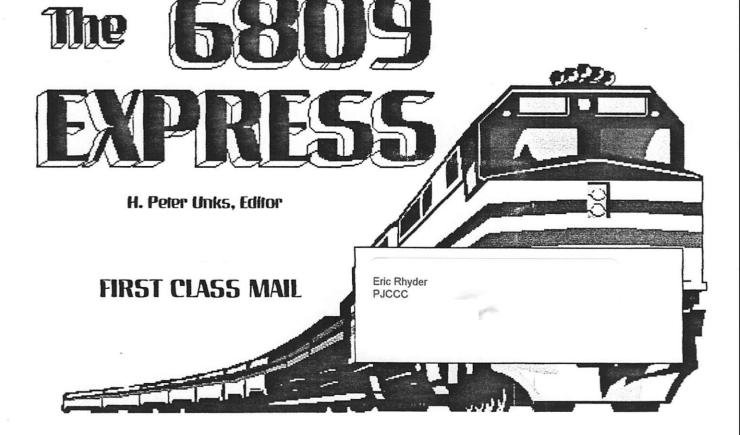
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PATRICK DOUGLAS CRISPEN PCRISPE1@UA1VM.UA.EDU THE UNIVERSITY OF ALABAMA

Warning: squirrels.



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