



Maryland State Department of
EDUCATION

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Schools for Success

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

April 12, 1996

Office of the Secretary:
Federal Communications Commission
Washington, D.C. 20554

Dear Sir or Madam:

Sailor, A Maryland Library Project, hereby submits its initial comments for filing in Common Carrier Docket No. 96-45, In the Matter of the Federal-State Joint Board on Universal Service. An original and four copies of the comments accompany this letter. Please contact me if there are any questions about this filing. Thank you for your assistance.

Sincerely,

J. Maurice Travallian /BAS

J. Maurice Travallian
Assistant State Superintendent for Libraries

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
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In the Matter of)
Federal-State Joint Board on)
Universal Service)

CC Docket No. 96-45

Comments
of
Sailor
A Maryland Library Project

I. Introduction and Executive Summary

Sailor, a cooperative project of the twenty-four Maryland public library systems, provides free statewide public Internet access to Maryland. The following mission statement, adopted in 1993, guides Sailor:

Sailor will provide the residents of Maryland with rapid, easy access to information, materials, and services from any available information source.

Sailor recommends adoption of Universal Service Fund ("USF") rules that encourage further growth and development of library-based public communications networks. Sailor specifically urges the Commission to:

-recognize that education is an individual self-guided process of lifelong learning that encompasses and exceeds the structure of formal classroom instruction

-create a technology-neutral USF library support mechanism

-acknowledge that library cooperation with non-library organizations should not disqualify libraries from USF support eligibility and allow libraries to obtain USF supported services through cooperative administrative mechanisms such as Sailor and state administrative channels

-develop a yardstick for library USF support that ensures that USF support provides true discount service and that carriers do not use the USF mechanism to cross-subsidize other services and enhance carrier profits

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II. Public Libraries and Public Information Highway Access Requirements

Libraries are vital to an aware and educated society.

Public libraries provide access to information and facilitate and enhance learning in their communities. This access was the core mission for the pre-technology library and retains its central role in the library of today. While the scroll, manuscript, book, tape and CD-ROM have been vehicles for knowledge in yesterday's and today's libraries, Internet access is an essential vehicle for the accomplishment of library goals today and in the future.

Effective public access to information services such as the Internet requires four elements:

- a modem-equipped computer within
- a non-toll local telephone call of an
- Internet Service Provider ("ISP"), combined with
- knowledge and skills to use the Internet

Any one of these four elements is a potential barrier to public information access. Internet access skills develop through a process of hands-on learning and cannot exist absent availability of the first three elements. These barriers are significantly higher for low income and rural parts of the population. Computer ownership is concentrated in the upper income brackets. Lower income households are less likely to have a private telephone line. Rural populations are less likely to have an Internet Service Provider within non-toll telephone

service, adding long-distance charges as an extra cost to Internet access.

Overall, according to the 1996 World Almanac, 35% of American households own a computer. Only 15.8% of these household computers are equipped with a modem, and of the modem-equipped computers, only 10.8% are connected to a telephone line. This discrepancy means that people in most U.S. households must use equipment in places like libraries, schools, community centers and kiosks to reach Internet information services. In places where libraries and other public places and institutions lack equipment and connectivity, the Internet is not an option for many people.

Sailor overcame these barriers and now provides virtually every Maryland resident with free access to the Internet as an information resource.¹ Sailor planned and developed its communications network without consideration of demographics, computer ownership or potential profits. Geographically isolated residents in Maryland's far northwestern region and on Maryland's Eastern shore share the telecommunications network developed by Sailor with the more geographically central Maryland population. Rural populations now have the same Internet access enjoyed by their metropolitan peers. The same services are available to both affluent Maryland areas, such as Montgomery County, and less

¹ Only one Maryland community lacks local Sailor access: Rising Sun. This town of 1,500 residents is located in Maryland's far northeastern corner, and it is served by an independent phone company. Sailor is working on the connection of Rising Sun to the Sailor network.

affluent areas, such as Baltimore City. According to the Maryland Poll, conducted in late 1995 by the University of Maryland Survey Research Center, 8% of Marylanders have used Sailor.

Sailor's role in Maryland is to level the playing field, ensuring that information is equitably available to everyone. This equitable access directly addresses the division between the information "haves" and "have-nots." Sailor is not undertaking a new mission - it is simply performing the traditional library mission of public information access. That mission now includes the new media of the Internet and other electronic information resources. Sailor is an example of libraries providing the information service that they have always provided, a service highly valued by the American public.

A. Sailor: Development

Sailor began in 1993 as a cooperative effort between Maryland's public libraries and the State of Maryland Department of Education. That cooperation continues today. Maryland has twenty-four library systems: one for each of the twenty-three counties and the Enoch Pratt Free Library in Baltimore City. Each nonprofit library is eligible for and receives funds from "State-based plans for funds under title III of the Library Services and Construction Act (20 U.S.C. 335c et. seq.)" 47 U.S.C. Section 254(h)(3). Sailor's first Internet service, a gopher, went online on July 24, 1994, with the release of the Baltimore City Sailor telephone number to the public. Sailor

achieved local telephone call access in all twenty-four jurisdictions in November of 1995.²

B. Sailor: Services

1. Computer Access and Telephone Lines

Sailor's goal is the placement of public access computers at each public library branch in each Maryland county and in Baltimore City and in other satellite locations. All of the twenty-four library systems have public access computers in place in at least one outlet. In addition, libraries have placed computer kiosks in three shopping malls. Public access computers allow non-computer owners to use Sailor without the financial burden of computer purchase. These computers also allow people without private telephone lines access to information services.

People with modem-equipped computers and private telephone lines can dial in to Sailor through a local telephone call to a library system, eliminating the toll barrier to ISP access. These local library hubs also provide 24-hour access, eliminating the need to coordinate information access with library open hours. Sailor off-site access does not require a high-end personal computer or fast modem. Some Sailor users employ a variety of low-end dumb terminals and computers, including Apple IIs and XT clones, for Internet access at 2400 baud or less. A used computer system purchased for under \$200 allows home information access through Sailor. An additional benefit is that Sailor creates an environment that allows potential commercial

² Appendix 1, Sailor Brochure with Local Telephone Numbers

ISP customers to "try before they buy." People can try Sailor and judge whether they will actually use the Internet prior to signing up for a long term paid account with a commercial ISP.

Sailor's combination of public and off-site Internet access is a success. Users report that they are accessing the Internet via Sailor from their homes, offices, libraries and the aforementioned shopping malls. The Sailor access is heavily used. The network receives approximately 200,000 "hits" and transmits over a billion packets of information each week.³ The availability of an on-ramp to the Internet at the local library has spawned joint projects and partnerships with local government agencies. Sailor is an electronic bridge that brings residents closer to their local government activities and services.

2. Internet Access

Sailor is available on the World Wide Web ("WWW") at URL: <http://sailor.lib.md.us>. For dial-in access, Sailor offers Lynx, a text-only Unix web browser.⁴ Either way, Sailor users receive the full benefit of textual information contained in web and gopher sites. For example, users can easily obtain information about Maryland state government (Maryland Electronic Capital, URL: <http://sailor.lib.md.us/mec/>), federal government activity

³ Appendix 2, Sailor Usage Report.

⁴ Users accessing Sailor and the Internet from within Sailor receive the textual content of WWW sites. Users accessing Sailor from other ISPs that offer graphic Internet connection receive both textual and graphic WWW content. Some libraries will soon offer the "Walk In Web," access to full graphical Internet content at selected library branches.

(THOMAS: Legislative Information on the Internet, URL: <http://thomas.loc.gov/>, the White House, URL: <http://www2.whitehouse.gov/WH/Welcome-plain.html>), and cultural resources as near as the Smithsonian (Smithsonian Institution, URL: <http://www.si.edu>) and as far away as St. Petersburg, Russia (St. Petersburg Web, URL: <http://www.spb.su/>). Sailor is Maryland's global presence on the Internet, providing residents with access to previously unavailable resources and the ability to quickly reach information beyond Maryland's borders.

Sailor provides this access through a user-friendly home page organized by topic. Novice users locate information through simple menus. Sailor is refining its topic menus to include both direct links to and descriptions of additional quality Internet sites under each topic. An online Lynx help menu exists in conjunction with the topic menus. Advanced users employ the sophisticated search engines supported by Sailor. These search engines include AltaVista, Lycos, Webcrawler, Yahoo!, DejaNews and Infoseek. Sailor users download files to their local computer link via Kermit, a file transfer program. Lynx and Kermit provide efficient means of transferring site content over current bandwidth. There is no charge for use of these Sailor Internet services.

3. User Training

Sailor provides user training and assistance through a variety of mechanisms. Maryland's information specialists, its librarians, are the training front line. Sailor has a cadre of

110 Sailor Trainers, each of whom trains librarians within his or her home library system. Through this system of "training trainers", Maryland libraries have a growing legion of Internet-aware staff and citizens.

A novice Internet user can access Sailor at public library branches. Each branch has at least one librarian well-versed in the use of Sailor. The novice user can obtain free onsite hands on Sailor assistance from these library information specialists. Libraries also offer special training classes. For example, the Enoch Pratt Free Library conducts structured Internet courses for children. The children learn to use Sailor and receive an "Internet Driver's License" at the end of the course. Sailor also maintains a help desk at the Enoch Pratt Free Library. Users can either telephone the Sailor specialists for assistance or send an E-mail requesting advice.

This combination of training methods is a cost effective solution to the frequently ignored problem of educating Internet users about the limitations as well as mind-expanding possibilities of Internet travel. Maryland chose to educate its existing librarian information specialists in electronic information resources rather than turn computer specialists into information specialists. The trained librarians in turn are available to guide both novice and experienced Sailor users in the use of this complex technology.

C. Physical Structure

Sailor's operational headquarters is in the Enoch Pratt Free

Library ("EPFL") in Baltimore, Maryland. The Pratt Library, located in Baltimore, is Maryland's State Library Resource Center. A sophisticated network of telecommunications services, or Wide Area Network ("WAN"), connects the EPFL hub with the rest of the state and the outside world. The following elements comprise the Sailor WAN:

- a Sun Sparc server 1000 located at the EPFL
- 23 PRI intraLATA ISDN lines with 529 channels of ISDN service through Bell Atlantic
- 3 connecting intraLATA BRI ISDN lines with 9 channels of ISDN service through Bell Atlantic
- addition of a minimum of 100 intraLATA BRI ISDN lines is scheduled
- 3 dedicated interLATA T1 lines from AT&T and MCI
- 1 dedicated interLATA SMDS line provided by Bell Atlantic
- 4 frame relay clouds connecting 11 frame relay sites; expansion to 27 sites in FY1997 is scheduled
- Internet service through BBNplanet, Sailor's commercial ISP, which is located in College Park, Maryland
- routers located at local library host sites
- modem chips, with a minimum of sixteen modems, resident in the routers at each library host site

The SMDS line runs from the EPFL hub to BBNplanet's point of presence in College Park. BBNplanet routes Sailor's Internet traffic. One T1 line runs from EPFL to Maryland's Eastern Shore. Another TI connects Frederick County to EPFL for service to western Maryland. A third TI, in partnership with the University of Maryland system, connects the Washington suburbs to EPFL.

ISDN lines connect the library points of presence with the

EPFL traffic center. Frame relay clouds are the appropriate technology that connects areas like western Maryland and the Eastern Shore. Currently, 21 of the 24 public library systems are directly connected to the Sailor network and the final three counties will be connected within the next six months.⁵ Wor-Wic Community College (on the Eastern Shore), the Maryland State Archives and the Maryland Electronic Capital are also connected to the Network. Schools, colleges and universities and other public agencies reach Sailor through dial-up or their own Internet connections. The attached system map shows Sailor's Telecommunications Network.⁶

The Sailor WAN effectively connects the local library hubs with the EPFL hub and the outside world. The libraries in each jurisdiction maintain separate communication facilities that connect the library hubs to the end users. For instance, ISDN lines connect many public library branches within library systems.

D. Operating Costs and Capital Investment

Development of the Sailor network was an intense three-year process and the investment required to provide this public access is substantial. Capital development total approximately \$1.1 million to date. This capital development sum includes only the cost of developing the main Sailor WAN network - it does not

⁵ These three libraries now are indirectly connected to Sailor through connections with neighboring counties.

⁶ See Appendix 3, Sailor System Map.

include expenditures by the participating libraries for intra-county library connections (LAN and WAN), public access terminals and expansion of modem pools. This sum also does not include in-kind contributions, such as librarian information technology training and the cost of the library space that houses Sailor equipment.

Estimated operating costs for fiscal year 1997 are \$763,206, an average of \$.15 per Maryland resident. Although this per resident sum is modest, telephone access charges consume a substantial part of Sailor's operating budget. Operating expenses are paid by state and federal funds. The public library systems do not pay for Sailor infrastructure costs.

OPERATING COSTS

Telecommunications line expenses	\$272,304
Internet access	103,744
Network hardware maintenance	62,304
Sailor personnel	292,854
Equipment	0
Database	<u>32,000</u>
Total	\$763,206

Telephone line expenses will increase as Sailor expands its network and services. Sailor is also facing a proposal from Bell Atlantic that changes Sailor's PRI ISDN tariffs from a flat rate to a usage based tariff scheme, a proposal that would prohibitively increase Sailor's telephone expenses.

E. Interim Conclusion

Sailor provides an accessible and sophisticated information system. Using computers in the libraries takes advantage of existing physical infrastructure and human skills. Library facilities are a public space with regular open hours. Maryland's corps of trained librarians learned to use the new information medium and to help others with its use. The Telecommunications Act of 1996 provides that "advanced telecommunications and information services should be available to all regions of the Nation." 47 U.S.C. S 254(b). Sailor took the first steps towards that goal prior to enactment of the Telecommunications Act and looks to regulations promulgated pursuant to the Act for assistance in further development of the services that Sailor and Maryland's libraries offer to the public.

III. Sailor Development Plans and the Telecommunications Act of 1996

Sailor plans expansion of the services it offers to Maryland. These expansion plans will require additional resources, resources that are scarce in this era of decreased government funding. Affordable telecommunications access is critical to Sailor's expansion and continuing success. Sailor thus urges the Commission to adopt the following principles in the USF regulations:

A. Education Is A Process of Lifelong Learning

Education is the pursuit of knowledge, a quest for information that occurs through formal classroom instruction and

through self-guided individual lifelong learning that occurs outside the formal classroom structure. Education is the essence of the library's information access mission. Every library activity is educational, whether provided as an aid to formal instruction or as an aid to self-directed learning.

Sailor enhances formal classroom activity. For example:

- school children learn the process of government through online dynamic tracking of legislative developments through Sailor

- a pre-kindergarten teacher read a picture book about a foreign country to her students and then helped them to find information about that country's weather through Sailor

- a boy found located information for a report on rockfish through Sailor's link to the Chesapeake Bay homepage

- Spanish language students can access Spanish-language networks, including the University of Valencia, through Sailor

- Teachers use Sailor to access lesson plans and get information from services like AskERIC

- Teachers and other educators access E-mail accounts through Sailor, including METNET (a server at the Pratt Library supported by the Maryland State Department of Education) and the University of Maryland at College Park

- School library media specialists help students locate information about other countries through Sailor.

Education, however, is not complete upon graduation from

high school or college. Especially in light of current economic uncertainty and corporate downsizing, individuals must be able to reach the information resources that enable them to maintain and advance their skills. Sailor allows individuals to easily access professional information that would otherwise be unavailable to them. Examples of current Sailor use include:

- access to online job and employment resources such as careerpath.com, which lists classified employment ads from the Washington Post and other major newspapers
- an unemployed woman was introduced to Sailor and the Internet as job information resources through a state employment program

Nor is education limited to employment-related information gathering. Education also includes reaching information that improves personal and community life. For example:

- a family that lost a child to Sudden Infant Death Syndrome ("SIDS") was put in touch with a SIDS support group and found SIDS information through Sailor
- the Baltimore County Public Schools train child care providers to use Sailor. The providers then use Sailor to learn about child development issues and provide information to children and parents
- breast cancer patients can find information about breast cancer treatment and support groups through Sailor
- people explore hobbies and personal interests through Sailor, including gardening, genealogy, bicycling, and many

other subjects.

The regulations adopted by the Commission should not exclude any of these valuable educational pursuits from USF support through a too-narrow definition of education. The regulations should instead incorporate a recognition that education is a life-long pursuit that cannot be closely prescribed.

B. The USF Regulations Should Permit Administrative Cooperation

Sailor, as noted above, is a cooperative project of twenty-four non-profit public library systems and the Maryland State Department of Education. Maryland and its libraries chose a wholesale approach rather than piecemeal efforts by individual libraries. As a result, the efforts of the libraries mesh smoothly with each other and with state administrative agencies. Cooperation ensured that the resultant whole is greater than the sum of its parts.

Sailor leads the Internet efforts of the individual library systems and works closely with a number of state agencies. The regulations promulgated by the Commission should allow this cooperation to continue. For example, Sailor acts as the central agent for network telecommunications services, a more efficient approach than each library bidding out for its own Sailor connection. Sailor also works with the Maryland Department of Education in obtaining telecommunications services and information access. Although technically not "a" library, Sailor is a joint library endeavor. Sailor asks that the Commission's

USF regulations be flexible enough to permit Sailor to continue its role as coordinator for telecommunications services for Maryland's statewide library-based telecommunications network.

C. The USF Mechanism For Library Access Should Be Technology Neutral

Sailor encourages the Commission to craft a technology neutral library USF support mechanism and review the support mechanism at intervals of not more than a year. Although Sailor now uses a combination of ISDN, T1, T3, frame relay and POTS service, technology is rapidly evolving. For example, the public library in Alexandria, Virginia, receives Internet access through its local cable company. If, for example, Internet and other information delivery over cable or satellite or some yet-to-be determined system proves both efficient and economical, the USF mechanism must allow library-based systems to take advantage of the alternative technology. A funding mechanism should not lock public information access providers into one delivery system. Nor should the mechanism nominate a sole provider of any delivery system in any given region as the only source of USF backed services. In this newly competitive era, information access providers should and perhaps will have a choice, for example, between two cable delivery or two telephone companies. The USF should not provide support through only one of those cable or telephone companies.

D. The Universal Service Fund Should Provide A Meaningful Service Discount

The Commission's regulations should include an objective

"yardstick" that ensures that the library USF mechanism benefits the libraries and not the telecommunications delivery system. A nominal discount will not achieve that goal. Sailor wants its telecommunications costs to decrease rather than increase under the competitive environment envisioned by the Telecommunications Act of 1996. To this end, Sailor makes two specific recommendations:

First, Sailor requests that pre-Telecommunications Act service charges be compared with post-Telecommunications Act charges in an effort to ensure true discount service, prevent cross-subsidization and enhance competition. Congress created the Telecommunications Act to increase competition. If, post-Telecommunications Act, Sailor's telecommunications provider increases its telecommunications charges, that increase should be an indication that true competition does not exist in Sailor's service area and that the telecommunications service provider is exploiting its current monopoly control of the market. Such an increase would also support an inference that the service provider is using profits from its monopolistic services to cross-subsidize its offerings in competitive service markets. In sum, the market rate in the absence of competition should not be lower than the market rate in the presence of competition.

For example, Sailor currently pays a fixed-rate of \$500 per month for each of its Bell Atlantic dedicated intraLATA ISDN PRI lines. Bell Atlantic has informed Sailor that Bell Atlantic plans to revise its rate structure to offer only usage-based

pricing for ISDN service to Sailor. The change from fixed-rate to usage-based pricing could increase Sailor's costs as follows:

	<u>Current Fixed Rate</u>	<u>Proposed with 2-3</u> <u>PRI channels activated</u>
Monthly		
Per Line	500.00	1,796.00
Systemwide	12,500.00	57,472.00
Increase		
Dollars		44,972.00
%		460%
Yearly		
Per Line	6,000.00	23,328.00
Systemwide	150,000.00	689,664.00
Increase		
Dollars		539,664.00
%		460%

The analysis presented in this chart, which compares Sailor's current flat rate ISDN PRI service with costs of the same service in a usage sensitive tariff environment, uses a conservative approach. It assumes the presence of frame relay transport clouds in two of Maryland's four LATA's and the activation of only 2-3 channels of ISDN PRI services in areas within an all ISDN topology. With increased citizen, school and in-library use of full graphics Web applications, the number of channels allocated for transport will need to be increased, creating a spiral of increasing usage that will generate impossible costs.

This example demonstrates both why a nominal USF discount approach is flawed and why price comparison should be a factor in judging whether affordable access exists. If Sailor continued operations under the proposed usage-based rate structure and a

nominal USF discount of 50%, Bell Atlantic would simply receive half of the 460% increase from Sailor and half from a USF discount mechanism. Such an arrangement is not an efficient distribution of USF resources and could not have been within the legislative intent of Congress when it enacted the library support mechanisms as part of the Telecommunications Act of 1996. This example could easily be replicated at the federal level. Sailor thus asks that the Commission use price comparison as a factor in judging whether genuine discount service is being offered to libraries.

Second, the determination of whether a genuine discount exists should also consider the services that are offered by telecommunications carriers to other customers and the marginal cost of providing that service. Sailor endorses the approach proposed by the American Library Association ("ALA") in its comments in this proceeding. The ALA proposes that libraries in nonrural, noninsular and non-high cost areas receive telecommunications service at rates drawn from the lowest contracted or tariffed commercial services offered by the provider to other customers, or at the Total Service Long Run Incremental Cost ("TS-LRIC") of offering the service. Explicit USF funding reimbursement would be unnecessary for these easily served library systems. The libraries would simply obtain services at either existing rates offered to other customers or at the incremental service cost. This approach is administratively simple, minimizes market distortion and

minimizes potential abuse of the USF mechanism.

Telecommunications carriers serving libraries in rural, insular and high cost areas would be the only service providers drawing explicit USF reimbursement for library services. Targeting cash reimbursement or USF off-set to these service providers would maximize the beneficial impact of USF funding and the administrative efficiency of USF fund distribution.

IV. Conclusion

Sailor respectfully asks that the Commission consider the recommendations made by Sailor and incorporate those recommendations into the final regulations.

Respectfully Submitted,

J. Maurice Travillian / 1/365

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for Libraries

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April 12, 1996

APPENDIX LIST

- Appendix 1: List of Sailor Access Telephone Numbers**
- Appendix 2: Sailor Usage Report**
- Appendix 3: Sailor System Map**

Storm warnings

- Some Internet destinations may be busy. You may get messages like "too many users; try later."
- The Internet is an unstable environment. Persistence and flexibility are helpful ways to cope.
- Be a cautious information consumer. Information resources on the Internet are not necessarily current, accurate or factual.
- Parents:** Please supervise your child's Internet activities. There are sites on the Internet which some might find objectionable.

For additional **HELP** about connecting to Sailor, call the Sailor Help Desk.

Phone Number: 410-396-4636
Hours: Monday - Saturday
8:30 AM - 5:00 PM

Or send an e-mail message to:
sailor@mail.pratt.lib.md.us

Sailor Internet Addresses

Telnet : sailor.lib.md.us
192.188.199.5

World Wide Web: <http://sailor.lib.md.us>

Use Sailor at your local public library, or dial in by computer:

Allegany	301/777-3222
Anne Arundel	410/222-7100
Baltimore City	410/605-0500
Baltimore County	410/494-1199
Calvert	410/257-9263
Caroline	410/820-4411
Carroll	410/848-1230
Cecil	410/392-0909
Charles	301/645-2002
Dorchester	410/221-0066
Frederick	301/620-0055
Garrett	301/334-6515
Harford	410/638-5669
Howard	410/730-0707
Kent	410/778-9582
Montgomery	301/424-4200
Prince George's	301/925-2400
Queen Anne's	410/820-4411
St. Mary's	301/863-5291
Somerset	410/742-0500
Talbot	410/820-4411
Washington	301/739-7600
Wicomico	410/742-0500
Worcester	410/742-0500

Sailor®: Maryland's Online Public Information Network



**Connecting Marylanders
and their libraries to
resources within the
state and worldwide.**

**Available at your
local library!**

Sailor is made possible by federal Library Services and Construction (LSCA), Title I funds. Operational support is provided by the State of Maryland.

What is Sailor?

Sailor is a statewide telecommunications network and a means to access Maryland electronic databases and to use Internet resources.

Where can I find Sailor?

You can find Sailor in Maryland's public library systems and in many school, college and university libraries. With a computer and modem, you can have access to Sailor from your home or office. For the price of a local phone call, you can connect with computer systems around the globe.

What kind of information can I find through Sailor?

- Maryland libraries' online catalogs
- Jobs and career information
- Census data
- State and local government directories
- Community information
- Federal government resources like:
 - Federal Register
 - CancerNet
 - NASA Space Link

You can also leave questions and comments in Feedback, please on the main menu. If you leave an e-mail address or daytime phone number, someone will contact you.

What do I need & how do I connect to Sailor?

You will need:

- ▶ A PC, MAC or terminal with a modem.
- ▶ Communications software. (e.g. ProComm, Qmodem)
- ▶ Phone line.
- ▶ The Sailor local phone number(s) for your area (on this brochure).

Communication software settings:

Terminal emulation: VT100

Modem speed: set to the fastest speed supported by your modem.

Communications settings: no parity, 8 data bits, 1 stop bit, full duplex

Connecting to Sailor

1. Dial your local library system number.
2. When your call connects, choose Sailor
3. At login: prompt, type guest
4. Press the enter key to accept VT100 emulation.
5. Choose Lynx to access Sailor WWW homepage.

NOTE: For best results, read the helpful hints and introductions. Pay attention to exit information and other instructions.

HELP: If you get lost on the Internet, type m to return to Sailor's homepage.

Or hold the ctrl key and type] to bail out.

Navigating Sailor using Lynx

What is Lynx?

Lynx is a World Wide Web browser that displays plain ASCII text on terminals and PC's that do not have graphical connections to the Web. You can view the hypertext documents and navigate around the Web using just your keyboard. Lynx does not use a mouse, display pictures or play sound files. Lynx is convenient and faster for modem users because it does not load large image files like graphical browsers.

Using Sailor

When the Sailor homepage appears, you will notice plain text and highlighted text. The highlighted texts are links to information. To view information, simply move the cursor with your **up** and **down arrow keys**, and press the **right arrow key** to go to that information. To return to previous information (or page), please press the **left arrow key**. You can also type the line or item number and press return to view information. Below is a list of some other useful commands.

spacebar	to view rest of a long page
b	scroll up a long page
/	search for a word on a page
m	return to Sailor's homepage
?	online help
q	quit
ctrl]	closes the connection, returning to the place where you entered Sailor
