

42<sup>ND</sup> MILITARY LIBRARIANS  
**WORKSHOP**

*MANAGING  
THE DIGITAL LIBRARY*

November 16-19, 1998

Old Town, Alexandria, VA

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Directorate of Information  
Science & Technology  
8725 John J. Kingman Road, Suite 0944  
Ft. Belvoir, VA 22060-6218



## MLW'98 Acknowledgements

We, the hosts of MLW'98, wish to extend our thanks to the many people who made this workshop possible. Without the support of so many people this workshop would not have been such a success.

To the people within DTIC who somehow found extra time in their workdays to contribute to this endeavor, thank you! We appreciate that you allowed yourselves to become deeply involved before, during, and after the workshop in spite of so many other priorities and deadlines.

To the librarians throughout the military community who provided assistance, agreed to be speakers, helped us find speakers, provided advice and experience from past MLW's, assisted before, during and after the conference, thank you! We know you had many other demands on you time and talents and we deeply appreciate that you made this Workshop a priority. You have our sincere gratitude and we hope that the conference meet all your expectations.

To the special speakers, many of whom commuted great distances to speak to a unique audience, we applaud you! We appreciate the time it took to prepare for this Workshop, the time to travel to it, and the talent it took to deliver great presentations. We are grateful for the extra time you took to spend time with attendees afterwards answering their questions and discussing issues.

To the generous sponsors and exhibitors who made the workshop possible with their monetary support, thank you! We hope that you made many contacts among the attendees and had the opportunity to develop lasting associations. We sincerely hope that your participation in this conference will pay dividends for years to come.

To the many people who worked on finalizing these proceedings, we salute you. It is a sometimes-thankless job with none of the excitement of a forth-coming event attached but provides a lasting contribution to the body of knowledge in military librarianship.

To the many speakers and attendees who were forthcoming in contributing copies of their presentations and biographies so they could be included, we applaud you. You came through with flying colors for us and we are indebted to you.

For all those who contributed by noticing problems and quietly fixing them unbeknownst to us, you deserve recognition! You smoothed the path to this final conclusion.

Thank you all for helping us through this venture, we have learned a great deal, the biggest lessons of course was it was worth it and we would do it again.

Thank you.

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## Welcome to MLW '98

On behalf of Mr. Kurt Molholm, Administrator, Defense Technical Information Center (DTIC) and all the employees of DTIC, welcome to the Military Librarians Workshop for 1998 (MLW '98). We are delighted to host this year's conference in historic Old Town Alexandria, Virginia. We hope that you find the wide array of speakers, panels, tours, and other activities to your liking. A great deal of effort has been expended by DTIC and Ramada Plaza personnel to ensure your experience at MLW '98 is both professionally rewarding and personally enjoyable. However, should anything occur that needs to be corrected or improved, please do not hesitate to bring it to the attention of one of the DTIC Workshop coordinators or a member of the hotel staff as appropriate.

We are indeed fortunate to have two outstanding major speakers and several very prominent panelists who will address and dialogue with you during MLW '98. You will find biographies on our two major speakers, Brigadier General (Retired) Donald L. Scott, Deputy Librarian of Congress, and Mr. Francis Buckley, Jr., Superintendent of Documents, United States Government Printing Office in this program. We are honored by their presence, and we are certain that both gentlemen will have important and interesting messages for us. We encourage you to make maximum use of the discussion periods during the panel presentations. We are sure that you will agree that all our panelists are experts in their fields and our exchange with them will prove mutually beneficial.

In addition to normal workshop-type activities, we have tried our best to make good use of the location of MLW '98 here in the National Capital Region. We are sure that the tours to the Library of Congress, the Central Intelligence Agency, and to DTIC, as well as our Workshop dinner on Tuesday evening with professional storyteller, Mr. Ralph Chatham, will be informative and fun.

Dare we say "fun" in conjunction with a government sponsored workshop? Yes, we truly hope that you do have fun at MLW '98. Fun attending official workshop functions; fun visiting with your fellow military librarian professionals; and fun being here in beautiful Old Town Alexandria. Again, welcome to MLW '98 and please let us know if we can do anything to assist you during your stay with us.

## **SERVICE CIOs PANEL**

### **INTRODUCTION**

**By**

**BARBARA D. WRINKLE**

**Director, Air Force Library and Information System**

For more than a decade the “information revolution”, advanced by the development of computer technology, has made a dramatic impact on our lives. This is especially true in DoD and in our libraries. We all know about the quantity of information but the key is deciding what is quality information and how to meet customer needs. The DoD CIO program was established to manage information as a strategic resource.

Today we will hear from the representatives of the Services about developing partnerships to deliver the right information to the right place at the right time.

## END USER TRAINING ONE-ON-ONE

Carla J. Pomager  
Redstone Scientific Information Center

You have heard it before, you'll hear it again - Information Overload. Where do you go? How do you sort through all the information? Librarians have had to deal with it for years. The push for virtual libraries to provide information to the end user's desktop has left some users confused and frustrated. They may not even know that they have found incorrect information. In today's climate, librarians must not only be information providers but also information facilitators. End user training is crucial.

At Redstone Scientific Information Center, RSIC, we found one-on-one training best fits our situation. RSIC is a large, (over 4 million items) technical library supporting U.S. Army Aviation & Missile Command, NASA's Marshall Space Flight Center and also providing specialized support to other Army Commands in the area. RSIC users are scientist and engineers doing research in cutting edge aerospace, optics, missile and aviation technology. RSIC has moved from print and CD-ROM indexes and abstracts to web browser based online resources whenever possible. Our catalog, WebCat is web based with links to electronic resources such as EI Village, Proquest Direct, and Periscope. Cambridge Scientific Abstracts, FirstSearch, DTIC's Stinet, and NASA's Recon Select. Many of the commercial databases are limited to users on the Campus Area Networks. Other databases such as DODDIS, WorldWide Standards, and Boiler & Pressure Vessel Codes are limited to in library use.

Our librarians have used some of these databases for years and some of our customers have used them on CD-ROM. Now we are marketing end-user access to information for all the government employees from their desktop. End-user access can be requesting a literature search through the request module of our online catalog or actually downloading the image of an article after searching an online database. The most important part of marketing these new services is training the end-user.

RSIC markets electronic resources in a variety of ways. We use Community Bulletin Boards and the What's New section of the home page to market new databases. To reach new users, the reference staff gives demonstrations at new employee briefings, staff meetings, and Technical Conferences. In the last year we initiated electronic registration for government employees that do not want classified material. After their information is in our system, we send an email message asking them to call for a PIN number. When we give them the PIN number to access the WebCat, we describe our holdings, how to place requests, and discuss with them what kind of information they will be looking for. We then guide them to the electronic resources that might be of interest. We encourage them to come to RSIC to have a reference librarian give them one-on-one training.



When customers call or come to RSIC for information, the reference librarian determines what resources are appropriate and the skills of the user. The hardest part of the reference interview is determining the patron's level of understanding and how much can be absorbed at one time. If the user shows no interest in searching, the librarian will take the request and deliver the information in an agreed upon format. However if a customer shows an interest and the information could be found in any of the electronic resources the librarian sits the user at an Internet terminal and guides the user through the search. The reference librarians also rove the area asking customers if they are finding what they're looking for. This leads to a reference interview and possibly a training session. Often the simplest questions open up opportunities for marketing and training.

Some times the staff even force-feeds training. Our reference librarians work the circulation desk. If a user comes to check out a book, the librarian checks to see if he has been assigned a login. If he has no login the reference librarian gives him a login and PIN and trains him on electronic resources of interest.

RSIC's one-on-one training is based on the needs of a particular moment. Therefore the reference staff must be well trained in all the electronic resources. Many vendors offer to train the trainers. Take advantage of it. Even pay for training if necessary. Librarians must also have basic computer skills. They may need to be able to help a customer get the adobe acrobat viewer, download a file, and email a file. We have actually has people call us to solve problems with their computer.

Promote your electronic resources. Share your skills. Let your library be the information leader.

## BIBLIOGRAPHY

Mardikian, Jackie, Beyond the Desk, *Reference Service Review*, Vol. 23 no. 1, 1995, p. 21-28.

Subramanian, Jane M., Patron Attitudes Toward Computerized and Print Resources, *Reference Librarian*, No. 60, 1998, p. 127-138.

Summey, Terri Pedersen, Techno Reference, *Reference Librarian*, No. 59, 1997, p.103-111.



# **End User Training in an Electronic World**

by

**Harriet Oxley**

**Ruth H. Hooker Research Library and Technical Information  
Center**

**Naval Research Laboratory**

The Naval Research Laboratory, NRL, is the Department of the Navy's corporate research laboratory, and is the principle in-house component of its parent organization, the Office of Naval Research in Arlington, VA. The main NRL site is located in Washington, DC. The other principal facilities are located in Monterey, California, and Stennis Space Center in Mississippi. All together, there are about 3,244 federal employees, of which 1,600 are scientist and engineers, and approximately 1,000 on-site contractors.

Some of the broad fields of research performed at NRL includes: computer science and information technology; electronic, directed energy and survivability technology; electronic warfare and imaging systems; geosciences, meteorology and oceanography; materials and ocean acoustics; and space systems and undersea technology.

The Library facilitates end user access to a wide range of scientific and technical information resources. Some representative Library resources are: OCLC FirstSearch; Community of Science; Meteorological & Geophysical Abstracts; Science Citation Index Expanded; NTIS; and Materials Safety Data Sheets. The Library also provides network access to over 400 full-text journals in electronic format with licensing agreements with, among others the American Physical Society, Elsevier Publishing, and the Institute of Physics.

End users have been able to search the Library's online catalog since 1983. However, all other online searching was performed in the Library by reference staff. In 1988, the Library introduced CD-ROM databases for end user searching in its reference area. Users reacted very favorably to the CD-ROM products, indicating their preference to explore and perform their own searches.

To extend such search capabilities to users in their offices, the Library implemented a NRL-wide information system called the InfoNet in 1992. InfoNet users were offered a single menu to select from a wide variety of information resources including: Library-mounted CD-ROM databases; the Library's on-line catalog; and remote services resident on the Internet. In 1995, the Library introduced a complementary Web-based system called InfoWeb. By the beginning of 1998, InfoNet was replaced entirely by its Web counterpart.

Recognizing that the InfoNet and later the InfoWeb enabled users to query information systems without leaving their offices, a decision was made to provide end user training. Key questions asked when initiating end user training were: who will provide training; how will training be presented; and how will support and troubleshooting be handled?

Primarily, training is performed by a staff reference personnel and vendors. Sometimes, depending on the nature of the presentation, the Chief Librarian and the Associate Librarian for Information Technology participate in the briefing.

The decision to use Library staff in the training program was based on staff knowledge of users and their needs, familiarity with the organization's mission and research areas, and availability for follow-up.

The rationale for including Vendors as co-presenters allows the Library to capitalize on their expert knowledge of their particular resource, experienced in training with their product, and capability for providing manuals and brochures. Even though the vendor provides the training, the reference person coordinates all other aspects associated with the vendor training.

Training is mainly accomplished through seminars, tutorials, and demonstrations and classes. The Library's first training effort consisted of an ongoing seminar program, with sessions being held on the first Tuesday and third Thursday of each month. Each session emphasizes a particular InfoNet capability and is presented as a stand-alone session, enabling participants to attend only those sessions that interest them.

New federal employees are sent welcoming letters from the Library and invited to schedule a tutorial session. Other employees are referred for tutorials when they are identified as new Library users or express interest in one of the InfoWeb services. Tutorials are tailored to cover the interest of participants and some classes are aimed at target audiences. Unscheduled tutorials are provided on a time available basis and refresher sessions are given tailored to needs of individual.

Library reference staff arrange for demonstrations and classes by vendors to accomplish specified objectives. A driving force might be the introduction of a new database or information product. At other times classes are scheduled to highlight a product's specific features.

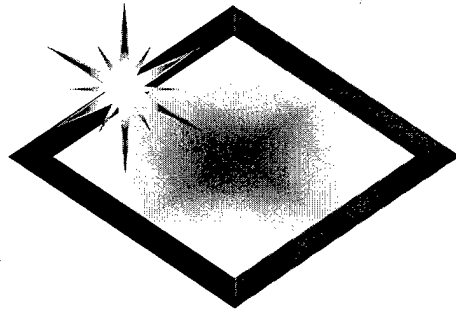
Support and troubleshooting is handled in the following manner: every end user is provided a point-of contact; questions are answered in person, by phone or through e-mail; and handouts designed in-house act as user aids.

Several benefits of end user training for the Ruth H. Hooker Research Library and Technical Information center are: empowerment of the user community; better utilization of both staff and user time; and increased expertise of reference staff.

# *Military Librarians Workshop 98*

Alexandria, Virginia

## **METADATA IN DIGITAL LIBRARIES**



Presented by

***Gail M. Hodge***

[gailhodge@aol.com](mailto:gailhodge@aol.com)

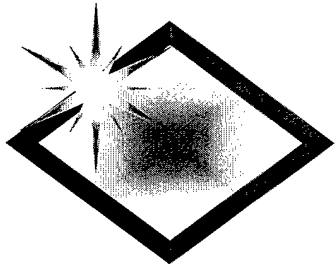
Information International Associates, Inc.

Oak Ridge, Tennessee



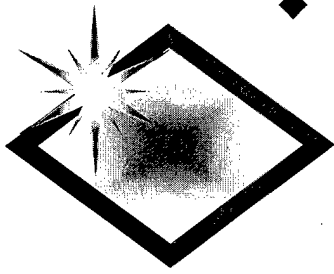
Ramada Plaza Hotel  
Old Town Alexandria, VA

November 17, 1998



# WHAT IS METADATA?

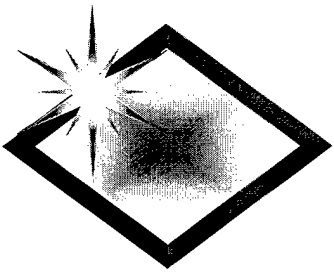
- ◆ Data about data
- ◆ A surrogate for the original object  
(textual or non-textual)
  - Cataloging records
  - High-level data records
  - Visual thumb nails



# PURPOSE OF METADATA

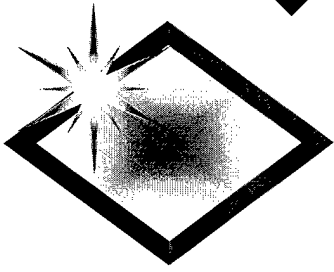
- ◆ Document non-textual objects
- ◆ Document textual objects that are digital
- ◆ Provide retrieval precision and recall
- ◆ Allow creation of automatic digital library collections
- ◆ Organize web pages thematically
- ◆ Facilitate use of the underlying object by providing information about the environment needed to use the data, the quality of the data, and rights management





***Metadata is structured data about  
data that imposes order on a  
disordered information universe.***

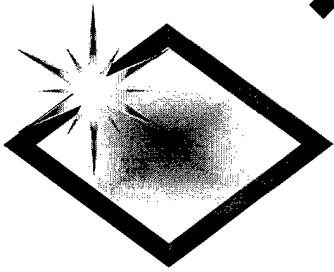
**- Carl Lagoze**



## **GENERAL STRUCTURE OF METADATA SCHEMES**

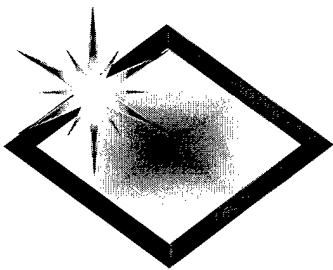
- ◆ **Basic sections**
  - ➔ **Descriptive**
  - ➔ **Administrative**
  - ➔ **Rights Management**
- ◆ **Syntax - structure**
- ◆ **Semantics - meaning**
- ◆ **Guidelines for content completion**
- ◆ **Embedded versus distributed metadata**
- ◆ **Implemented in one or more protocols**
  - **Z39.50, HTML, SGML, XML, etc.**



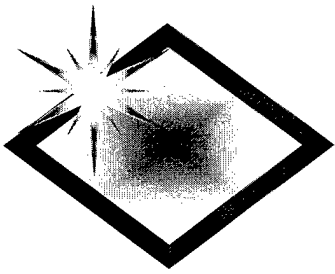


## BASIC CONCEPTS

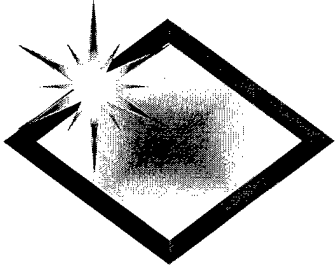
- ◆ Search priority or ranking is given to metadata record rather than the full text of the object
- ◆ Metadata record can be used to present a synopsis or abstract in the browsers list of "hits"
- ◆ Metadata contains elements that help to describe the nontextual material for a community or particular purpose
- ◆ Originators create metadata rather than catalogers - perhaps as part of their original object creation
- ◆ Allows interoperability of legacy data sets stored in multiple formats - some of this is accomplished through extraction
- ◆ Computer and human readable



# OVERVIEW OF METADATA SCHEMES

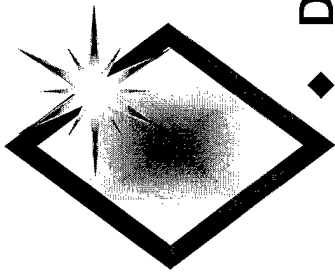


*One of the nice things about  
standards is  
is that there are so many to  
choose from.*



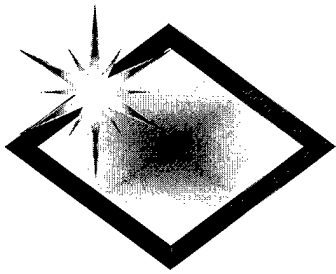
# *RDF and XML*

- ◆ **RDF - Resource Description Framework**
  - Aggregate different metadata types
  - Implementation of the conceptual "Warwick Framework"
  - Data model and XML syntax
- ◆ **XML - Extensible Markup Language**
  - Subset of SGML (Standard Generalized Markup Language)
  - Interoperable with both SGML and HTML
  - More robust than HTML
  - Allows for sending data structures across the Net, including hierarchies
  - Communities can define their own semantics



# USE OF METADATA IN DIGITAL LIBRARIES

- ◆ Digital libraries must handle a variety of subjects, services, data types and formats; therefore, digital libraries must handle multiple metadata formats
- ◆ Interoperability
  - There will not be a single scheme
    - Economics
    - Needs of different subjects and communities
    - Different data and format types
    - Multiple requirements by administrative/regulatory bodies
- ◆ Key is data exchange
  - Crosswalks
  - Not just finding but integrating
  - Profiles and extensions for specific purposes
  - RDF provides a framework for linking different schemes
  - XML provides a higher level syntax and semantics
- ◆ Time spent on schemes - now see emphasis on content



## **WHAT'S IN IT FOR A MILITARY LIBRARY?**

- ◆ **Look for opportunities to share skills in cataloging and data management**
- ◆ **Libraries bring together the focus on the data management and the content management**
- ◆ **Look for opportunities to integrate library catalogs and other library holdings with digital library projects**
- ◆ **Provide an integrating mechanism across government and private sector**



## OVERVIEW OF METADATA SCHEMES

STANDARD	DESCRIPTION	COMMUNITY	DATA TYPE	STATUS	PROJECTS
MARC (Machine Readable Cataloging)	Cataloging for library collections	Libraries/infor- mation centers	Text (books & serial titles), Audio, Video, Music, Community Information, etc.	Various national/internati onal variations of the standard; MARBI/LC handle maintenance	Libraries
Dublin Core (DC)	Minimal 15- element record; can be extended and qualified	Libraries/digital library projects	Electronic resources; documents/Web pages	Submitted to NISO/ISO and the Internet Engineering Task Force; in the comment process	Over 100 projects in 20 countries; libraries and other variations such as use by Dept. Of Energy for redesign of bibliographic database and by Coalition for Interchange of Museum Information

Federal Geographic Data Committee (FGDC) Geospatial Content Standard	Extensive record (100+ elements) for describing data sets that can be geospatially referenced; profiles can be added - one done for biology	Geospatial community; required for federal and some state agencies	Data sets, maps; some use with supporting technical reports	Submitted to ISO; in the comment process	Various federal, state, and international Clearinghouse Projects
Global/Government Information Locator Service (GILS)	Number of elements vary; Standard set of 50+ elements to describe high-level resources, such as database or information products; DoD's GILS Lite has fewer elements	Mandatory for federal; some state agencies; also used internationally by the G-8	Intended for high level resources, but often used at varying levels	FIPS Standard	US Federal GILS Government Environmental Locator Service (GELOS) of the G-8

Text Encoding Initiative (TEI)	SGML encoding of electronic literary works	Literary community; humanities	Literary works (including poetry)	Maintained by Steering Committee and Advisory Board from sponsoring organizations, primarily academic; now looking for a permanent maintenance organization	Oxford Univ., Univ. of Michigan, Univ. of Virginia, Univ. of Illinois at Chicago
Encoded Archival Description (EAD)	SGML encoding of finding aids for archival collections	Archives/ Museums	Archival finding aids such as registries, indexes, catalogs, etc.	Maintained by the LC; American Society of Archivists	Univ. of Durham, UC Berkeley, LC, Duke, Rutgers, Center for Electronic Text in the Humanities

<p>Instructional Management System (IMS)</p>	<p>Format for describing instructional materials</p>	<p>Education/dis-tance learning</p>	<p>Curriculum, instructional material sets, etc.</p>	<p>EduCAUSE</p>	<p>Dept. Of Defense, various universities, coordination with Dept. of Ed.</p>
<p>X.500 Directory Metadata and Lightweight Directory Access Protocol</p>	<p>Global naming system across federated directories; distinguished name and variants</p>	<p>Directory/catalog publishers</p>	<p>Online phone directories and catalogs of products</p>	<p>ISO X.500; LDAP is an Internet Engineering Task Force Standard</p>	<p>All major Internet based phone directories; also being used for other kinds of lists such as a genome directory at Stanford Univ.</p>
<p>Z39.50 Scientific and Technical Attribute Set (STAS)</p>	<p>Element set for Z39.50 search protocol that handles scientific and technical databases</p>	<p>Scientific and Technical database community</p>	<p>S&amp;T databases including bibliographic and factual</p>	<p>Maintained by Chemical Abstracts</p>	<p>STN International (Columbus, Japan and German nodes)</p>

# MILITARY LIBRARIANS WORKSHOP SELECTED METADATA RESOURCES

Gail Hodge, Information International Associates,  
November 17, 1998

## **ALCTS Taskforce on Meta Access**

URL - <http://www.lib.virginia.edu/alcts/>

A resource provided by the Association for Library collections and Technical Services of the American Library Association. Reports on various meta access projects and links to the final report of the Taskforce.

## **Arts and Humanities Data Service - "Discovering Online Resources Across the Humanities: A Practical Implementation of the Dublin Core"**

URL - <http://ahds.ac.uk/public/metadata/discovery.html>

An implementation of the Dublin Core for the arts and humanities.

## **Bibliography of Materials Related to the Dublin Core**

URL - <http://www-diglib.stanford.edu/diglib/pub/dublin.html>

Links to implementations, crosswalks and key papers on Dublin Core, Warwick Framework and related projects and technologies.

## **Cataloging Internet Resources: A Practical Guide, 2nd Ed.**

URL - <http://www.oclc.org/oclc/man/9256cat/toc.htm>

A comprehensive guide to cataloging Internet resources authored by Nancy Olsen.

## **D-Lib Magazine**

URL - <http://www.dlib.org/>

Contains numerous articles on the various metadata schemes and their implementations. Current issue and back issues are searchable and browseable.

## **Dublin Core/MARC/GILS Crosswalk**

URL - <http://lcweb.loc.gov/marc/dccross.html>

Provides a crosswalk between MARC, the Dublin Core, and GILS.

## **Dublin Core Metadata**

URL - [http://purl.oclc.org/metadata/dublin\\_core/](http://purl.oclc.org/metadata/dublin_core/)

Dublin Core homepage with notes from the Dublin Core meetings, relevant articles and white papers, and descriptions for projects that have implemented the Dublin Core.

\*Inclusion or exclusion from this list does not constitute endorsement or lack thereof by IIA, DTIC or DoD.

### **LBNL EPA Scientific Metadata Standards Project**

URL - <http://www.lbl.gov/~olken/epa.html>

Lawrence Berkeley National Lab site that includes information from metadata registries workshops, and links to other related sites including the US EPA Metadata scheme. Also a good resource for related information, such as XML and RDF.

### **FGDC Metadata**

URL - <http://www.fgdc.gov/metadata/metadata.html>

The metadata standard for geospatial data as supported by the Federal Geographic Data Committee. Includes links to educational materials and a survey of FGDC metadata tools.

### **GILS (Global Information Locator Service/Government Information Locator Service)**

URL - <http://www.usgs.gov/gils>

Includes the GILS standard, GILS in the press, and international uses.

### **Guidelines for Intelink Metadata, Version 1.0**

URL - [http://spider.osfl.disa.mil/dii/aog\\_twg/twg/mcstwg/INTELINK.HTM](http://spider.osfl.disa.mil/dii/aog_twg/twg/mcstwg/INTELINK.HTM)

List of Intelink Metadata elements, proposed tags, and examples.

### **IEEE Meta-data: The Meta-Data and Data Management Information Page**

URL - [http://www.llnl.gov/liv\\_comp/metadata/metadata.html](http://www.llnl.gov/liv_comp/metadata/metadata.html)

An information source for metadata and related data management issues. Contains a calendar of upcoming events, reports of workshops and conferences (including those of the IEEE), mail archives from the IEEE-Metadata listserv and pointers to related sites and documents.

### **IFLA Digital Libraries: Metadata Resources**

URL - <http://www.nlc-bnc.ca/ifla/II/metadata.htm>

A comprehensive guide to metadata resources, organizations and projects maintained by the International Federation of Library Associations and Institutions. Particularly strong on North American resources, and giving links to relevant Internet drafts and requests for comment.

### **IMS Metadata**

URL - <http://www.imsproject.org/metadata/>

Instructional Management System Project for developing a specification and software for online learning resources. Paper describing this project authored by Steven Griffin and Tom Wason, "The Year of Metadata" appears in *Educom Review*, (Nov-Dec 97):56-58.

### **Metadata Index of Resources: University of Kent UK**

URL - [http://www.hensa.ac.uk/meta/meta\\_links.html](http://www.hensa.ac.uk/meta/meta_links.html)

Comprehensive list of links, with a special section on related standards, such as XML (Extensible Mark-up Language).

\*Inclusion or exclusion from this list does not constitute endorsement or lack thereof by IIA, DTIC or DoD.

**MetaWeb Project (Australia)**

URL - <http://www.dstc.edu.au/RDU/MetaWeb/>

Joint project of the Charles Sturt University, the Distributed Systems Technology Centre and the National Library of Australia to develop metadata element sets, user tools and indexing services..

**National Biological Information Infrastructure: Metadata Standards**

URL - <http://www.nbio.gov/standards/metadata.html>

Includes the NBII Biological extensions to the FGDC standard and various papers and presentations by NBII staff.

**PICS-Platform for Internet Content Selection**

URL - <http://www.w3.org/PICS/>

PICS is a means of associating labels (metadata) with Internet content. Designed for privacy, intellectual property rights management, and parental control of access to Internet resources by children. Includes involvement by the US Office of Science and Technology Policy (OSTP).

**Technology Navigator**

URL - <http://www.dtic.mil/technav/>

Information source for technology transfer between government, industry and academia in various information technology areas. Includes metadata-related resources, primarily technologies related to metadata creation and searching.

**UKOLN Metadata Resources**

URL - <http://www.ukoln.ac.uk/metadata/resources/>

Links to information about various metadata schemes, organized by scheme, as well as specific projects instituted by the UK Office of Library and Information Networking.

**University of South Australia Metadata**

URL - <http://www.unisa.edu.au/library/internet/intguide/metadata.htm>

General description of metadata and its various uses. Links to a variety of traditionally published and electronically published resources.

**W3C World Wide Web Consortium**

URL - <http://www.w3.org/RDF/>

International group working on the Resource Development Framework (RDF) which facilitates interoperability and the automatic processing of WWW documents.

\*Inclusion or exclusion from this list does not constitute endorsement or lack thereof by IIA, DTIC or DoD.

**W3C Extensible Markup Language (XML) 1.0 Specification**

URL - <http://www.w3.org/TR/1998/REC-xml-19980210>

Description and specifications for XML, a subset of SGML (Standard Generalized Markup Language) which is intended to allow for increased flexibility and interoperability on the Web. There are links to additional technical documents.

**Warwick Framework**

URL - <http://www.dlib.org/dlib/november97/daniel/11daniel.html>

*Extending the Warwick Framework: From Metadata Containers to Active Digital Objects*, by Ron Daniel & Carl Lagoze. Nov. 1997



## MILITARY LIBRARIANS WORKSHOP METADATA GLOSSARY

### **CDF (Channel Definition Format)**

An XML application, primarily for describing 'push' channels. May also be used to describe arbitrary groupings of resources.

### **Data Mining**

Analyzing a database using tools which look for trends and patterns within the meaning of the data.

### **DTD (Document Type Definition)**

An application program defining document types in a SGML context, used by other programs to interpret documents or surrogates for items (metadata) marked up following these definitions.

### **Dublin Core (DC)**

A metadata format defined on the basis of international consensus which has defined a minimal information resource description, generally for Web-based documents.

### **EAD (Encoding Archival Description)**

A SGML-based metadata format developed for the description of finding aids such as catalogs, registries and indexes.

### **EDI (Electronic Data Interchange)**

The exchange of structured data messages to enable automated transactions between application systems.

### **FGDC (Federal Geographic Data Committee)**

Organization that defined FGDC Content Standards for Digital Geospatial Metadata.

### **GILS (Global Information Locator Service)**

Metadata format, originally developed for use by the US Government, in order to provide a means of locating resources generated by government agencies.

### **Harvest**

A system providing a software architecture for gathering, indexing and accessing Internet information. The act of "harvesting".

### **HTML (Hypertext Mark-up Language)**

The standard language used for creating Web documents. A subset of SGML.

**HTTP (HyperText Transfer Protocol)**

The client-server protocol used for the exchange of HTML. See also: TCP/IP.

**IAFA (Internet Anonymous FTP Archive) Templates**

Metadata format templates designed for anonymous FTP archives.

**IETF (Internet Engineering Task Force)**

The industry consortium that addresses the development and standardization of Internet protocols, metadata standards, frameworks, etc.

**Metadata**

Data which provides information about a resource; data about data..

**PICS (Platform for Internet Content Selection)**

Internet content filtering infrastructure. Suggested as a mechanism for filtering web sites based not only on age-appropriateness, but also on quality.

**PURL (Persistent Uniform Resource Locator)**

A a URL-compliant format that allows the addressing of the resource separate from its physical, server location.

**Push technology**

New Web technologies based on pushing information to end user.

**RDF (Resource Description Framework)**

An architecture currently under development within the W3C that provides a framework for different metadata standards and different application areas.

**Registry**

1) A file in which resource owners provide basic metadata about their resources in a particular area. 2) A repository of official data elements used in one or more metadata schema or profiles, often following the ISO 11179 standard for data element definitions. Intended to provide a mechanism for re-use.

**Repository**

An aggregation of data described by metadata. May or may not be organized into collections.

**Schema**

Both the semantics and syntax of a metadata format.

**Semantics**

The rules of a metadata schema governing the meaning and behavior of schema, independent of the syntax.

**SGML (ISO 8879) (Standard Generalized Mark-up Language)**

An international standard for the description of marked-up electronic text. Subsets include HTML and XML. Definitions are provided via the DTD.

**SOIF (Summary Object Interchange Format)**

A metadata format developed for use with the Harvest architecture.

**Syntax**

The rules of a metadata schema governing the way the mark-up language is written, independent of the meaning.

**TCP/IP (Transmission Control Protocol/Internet Protocol)**

The Internet transport-level protocols, often used to refer to the entire collection of Internet protocols.

**TEI (Text Encoding Initiative)**

An SGML-based metadata format for the encoding of literary and linguistics texts in electronic form.

**URC (Uniform Resource Characteristic)**

A format for describing a resource. May also be used to express metadata.

**URL (Uniform Resource Locator)**

The standard way to give the address of a source of information on the WWW. For example: <http://www.infointl.com>

**URN (Uniform Resource Name)**

Persistent identification for Web resources, based on names rather than servers.

**Warwick Framework**

An architecture for the exchange of distinct metadata packages involving the aggregation of metadata packages into containers.

**Web Robot**

A software tools that trawls the WWW, generating all-encompassing Web indexes. Also known as Web crawlers or Web spiders.

**World Wide Web Consortium (W3C)**

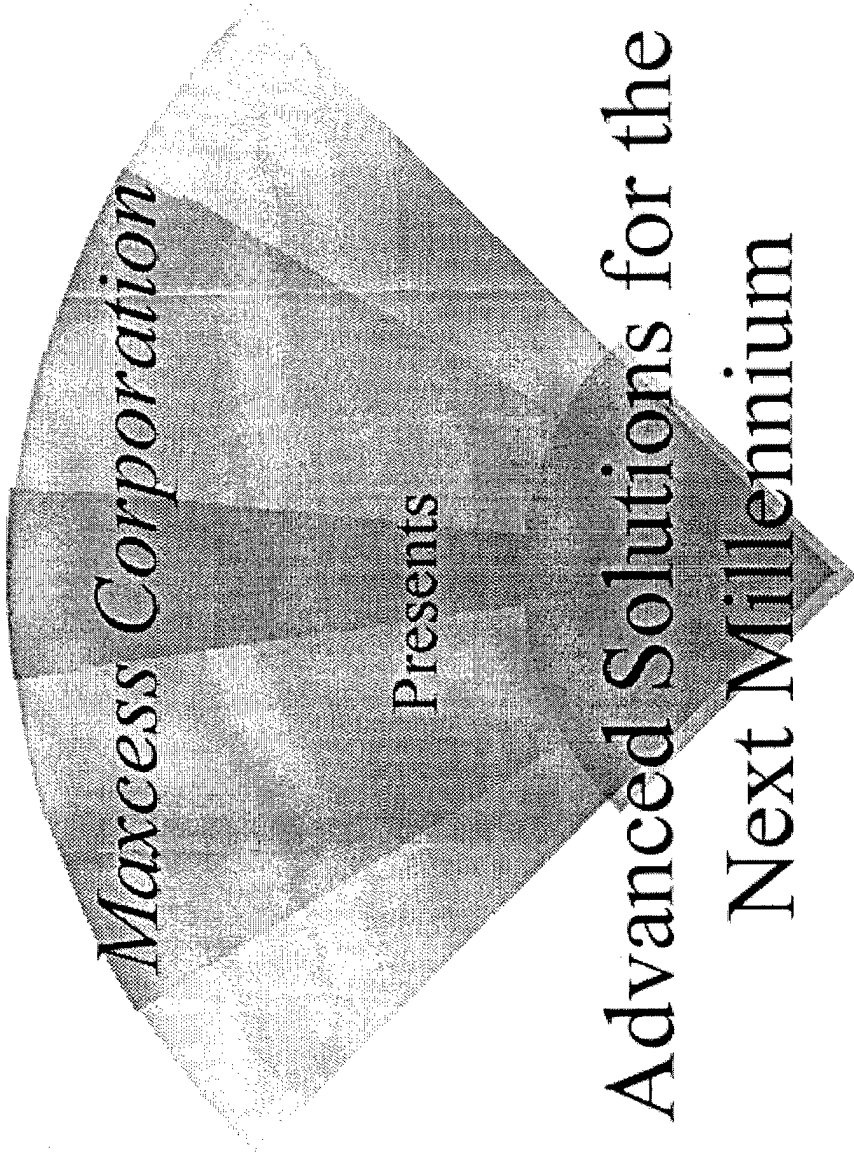
Organization currently responsible for the development of Web protocols.

**XML (Extensible Markup Language)**

A lightweight version of SGML designed for use on the Internet. Accommodates the hierarchial presentation of information.

**Z39.50**

An ANSI/NISO standard for an applications layer protocol for information retrieval which is specifically designed to aid retrieval from distributed servers.



Advanced Solutions for the  
Next Millennium

# Harnessing the Power of technology and trends to come

Presented by

David A.L. Smith  
National Accounts Manager  
Maxcess Corporation

# Introduction

---

- Review roles of the library and librarian in the future
- Technology trends influencing these roles

# Topic One - The Librarian of the Future

---

- Will be Information Integrator -
- Will manage the collection, processing and dissemination of information on a much larger scale than today
- Changes the focus and scope
  - Enterprise
  - Department
  - Agency

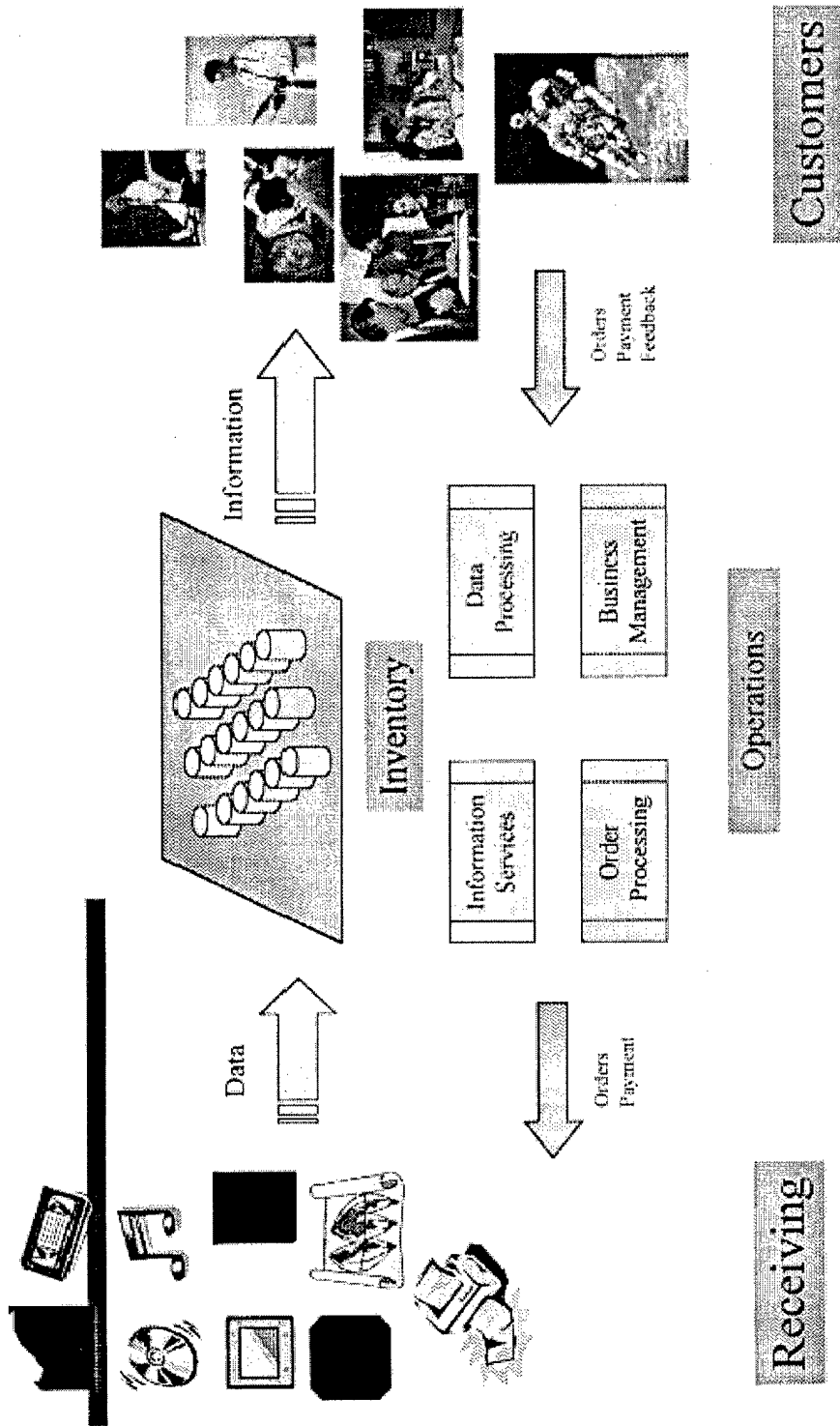


## A Consumer Oriented Management Methodology

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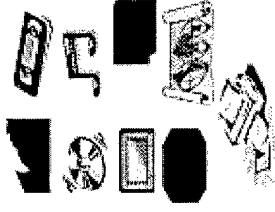
- You run a information store
- Library will become a mission-critical operation
- Your patrons are "truly" customers
- They order and pay for your "products"
- Your product offerings will be digitized, on-line, knowledge-based assets
- Library will operate as profit center

# The Information Store



# Receiving Operatoins

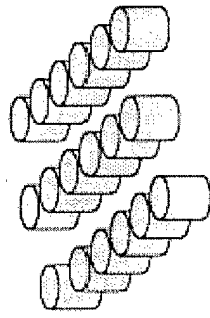
---



- Document processing facility
- Large scale digitizing (low cost)
- Most source documentation is in digitized form
- On-line data collection from services, intranet, other sources
- Traditional data sources such as books, serials, etc.

# Business Operations

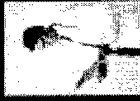
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- Data Processing Center
  - Creating “Information” from Data
- Information Services
  - Knowledge Management Center
  - Reference, special projects
- Order processing and management
- Distribution on demand (Printing, document delivery, etc.)

# Customers

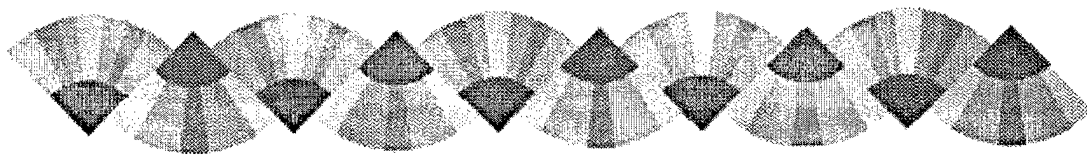
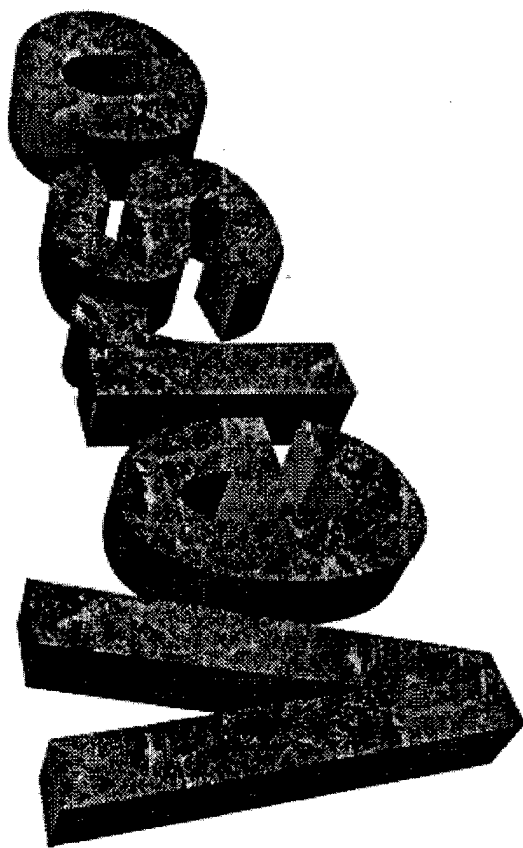
- Organization and Enterprise wide
- Will be primarily on-line
- Rare, infrequent visits to facility
- Diverse, technology literate
- Complex knowledge requirements



## Summary

- Roles are rapidly changing
- Must adapt tools and facilities to manage the changes
- Acquire new skills
- Leverage technological advances
- Grow, or die

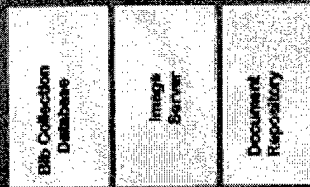
*Maxcess now Presents...*



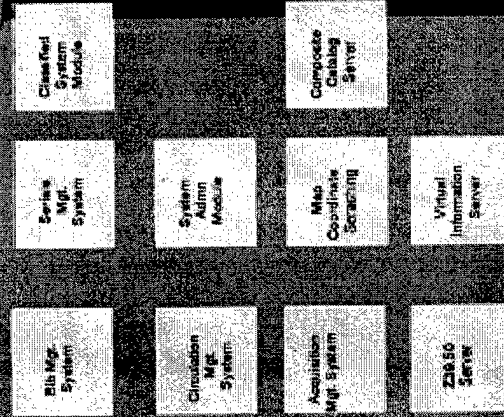
# The Verso Architecture

## Verso

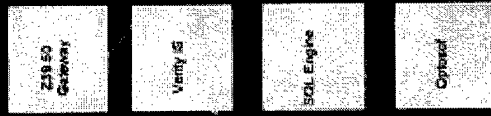
### Data Containers /Resources



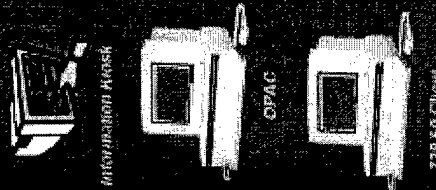
### Application Modules



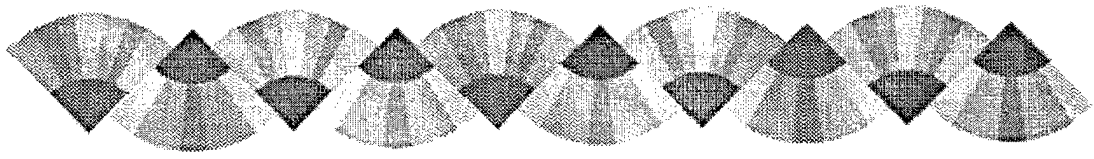
### Interfaces



### Clients

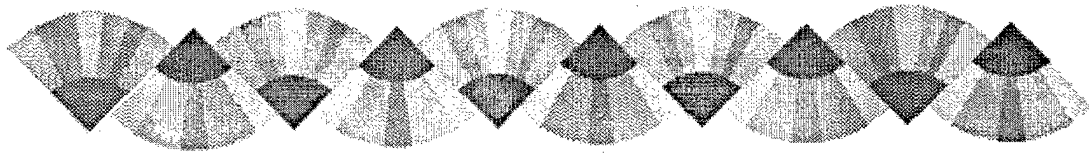






## *Verso*

- ▶ Sophisticated, advanced technology system for the collection, management and dissemination of library and information center assets
- ▶ Delivering today, a 100% browser enabled product



## *Verso*

- Scalable, cost effective system
- Open systems based
- Multi-tiered, thin-client based architecture
- designed for simplicity, versatility, ease of use



## *Verso*

- ▶ Simple, thin client user interface (browser)
  - customers (patrons)
  - Staff
- ▶ Easy to use workplace templates
- ▶ Customizable workflows
- ▶ Deliverable today



## *Library Management Systems*

- ▶ Verso
- ▶ Basis TechLib
- ▶ Advanced Staff Workstation
  - Cataloging Desktop
  - Web Site cataloging module
  - Advanced report development tool
- ▶ ?????? Other best of breed products



# *Enterprise Management Solutions*

Enterprise2000

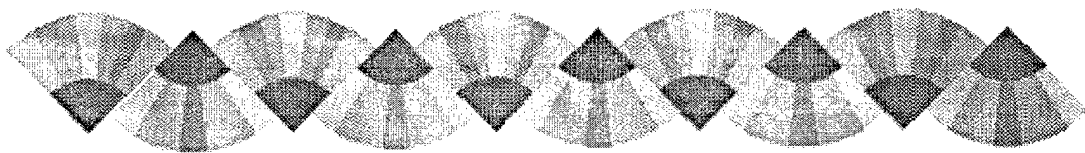
- Data Containers/Managers
- Information and Knowledge Management Applications
- Enterprise Gateways
- Clients

BASIS Internet Server

Verity Search97 Family

# *Consulting and Development Services*

- Site development and support
- Virtual Data Center
- Application Development Services



**PLANNING THE 21st CENTURY  
TECHNICAL INFORMATION CENTER**

**LYNN NEWBILL  
IIT RESEARCH INSTITUTE**

**HEAD LIBRARIAN  
BMD TECHNICAL INFORMATION CENTER  
703-412-2827**

**DOROTHY.NEWBILL-CONTRACTOR@BMDO.OSD.MIL  
LNEWBILL@IITRI.ORG**

# BMD TIC Overview

---

A Contracted Facility

Managed By

Dynamics Research Corporation (DRC)

IIT Research Institute (IITRI)

Government Sponsor:

Ballistic Missile Defense Organization

Information Systems Directorate (BMDO/POI)

COTR: Ms. Brenda Johnson, Computer Specialist

A Small Staff



# **TIC Contractual Functions**

---

**Operate An Information Center**

**Develop & Maintain A Collection Of Ballistic Missile Defense Information**

**Perform Research & Database Searches For Authorized Patrons**

**Compile Current Awareness Materials**

**Operate Bidders Libraries**

**Assist BMDO In Meeting DoD Scientific & Technical Information (STINFO) Requirements**

# TIC Special Projects

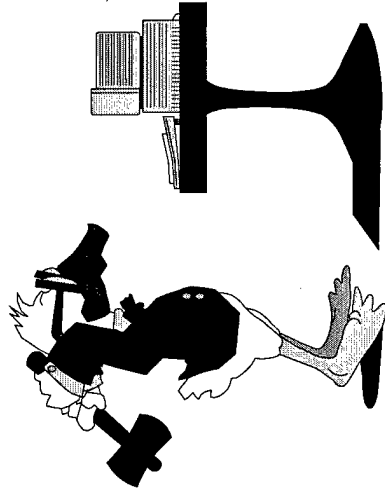
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Support EDMS Planning And Development

Digitize The TIC Collection

Plan For The TIC Move

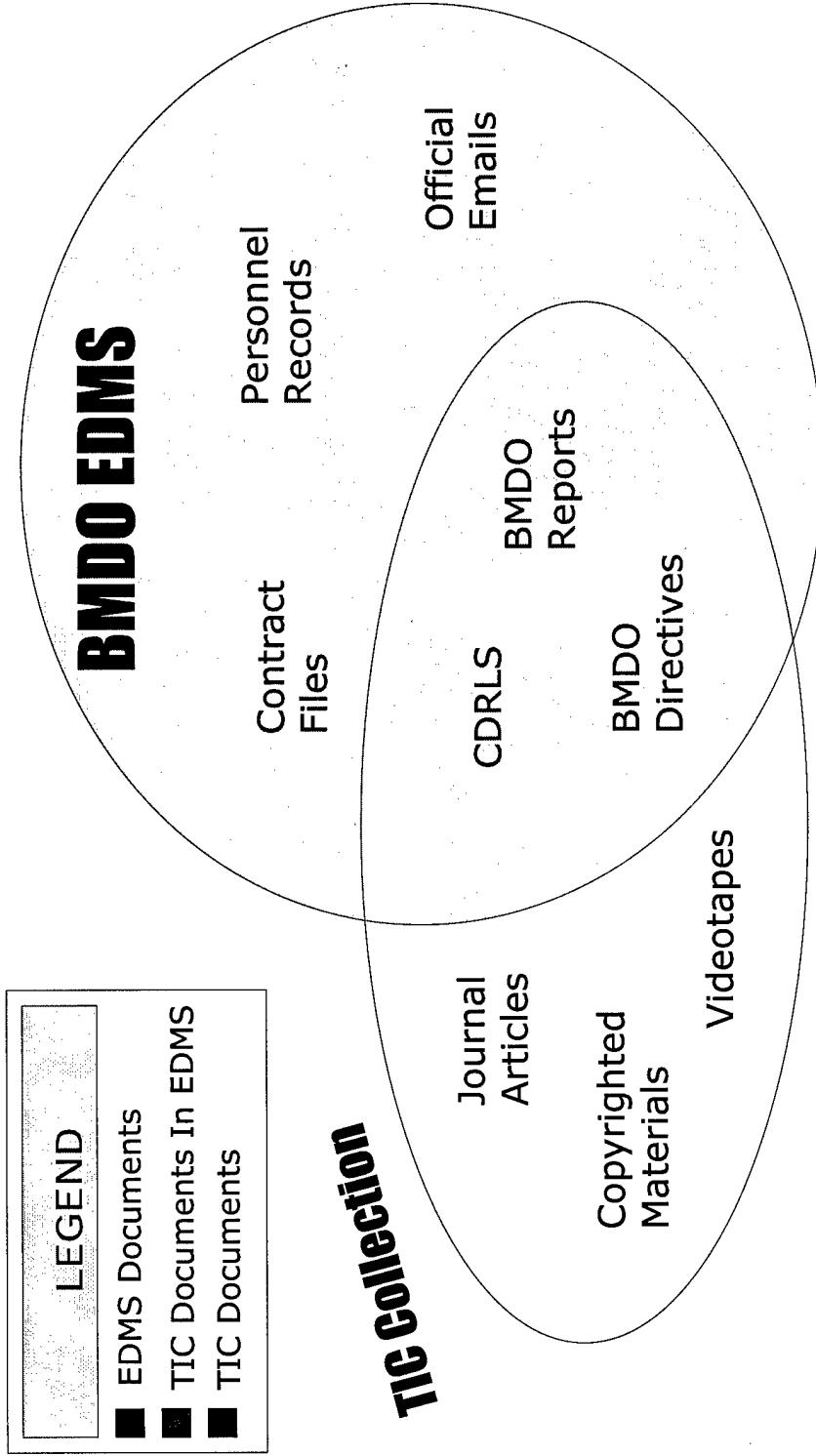
**Y2K**



---

# PLANNING THE EDMS: THE TIC ROLE

# Planning The EDMS: The TIC Role



# Planning The EDMS: The TIC Role

---

Identify Resources For Electronic Information Standards  
Define Individual Office Requirements  
Determine Fields Required To Describe A Digital Record  
Recommend Field Attributes

# Planning The EDMS: The TIC Role

## Fields Selected For EDMS

Abstract	Document Number	Produced under Contract
Author/Originator	Document Title/Subject	Number
BMDO PAO	Document Type	Publication Date
Corporate Author	File Series Number(s)	Record Identifier
Date Approved	Files Series Description	Related Organizations
Date Filed	Files Series Name(s)	Security Classification
Descriptors	Fiscal Years	Security Subgroups
Distribution Statement	Identifiers	Text
Document Custodian	MIMETYPE	Tracking Number; Case File
Document Entered By	Notes/Comments	
Document Format	Organizational Function	

## Fields Proposed But Not Incorporated

Access Permissions	Under FOIA	Pages
Case Number	Media Type	Privacy Act Data
Date Created	Nominate as Record	Time Created
Document Size	Nominate for TIC	Time Entered
Exempt from Public Release	Other Distribution Limitations	

# Planning The EDMS: The TIC Role

FIELD ATTRIBUTES	DESCRIPTION
Purpose	How is the field to be used?
Type Of Data	Is the data CHARACTER, NUMERIC, EXACT BINARY?
Size	How large is the field? (ie. 10 characters for dates; 500 characters for the title)
Occurrences	Will data require delimiters? (ie. multiple subject terms; multiple authors)
Legal List Requirements	Will the field require a pull-down menu of options?
Indexed	Will the field be searched frequently and therefore require indexing?
Usage	Is special formatting required for consistent retrieval? (ie. dates; author names)

## EXAMPLES OF POLICY CONSIDERATIONS

- Determining the document title
- Determining the author
- Determining publication date
- Applying distribution statements
- Identifying document numbers
- Establishing consistent abstracts
- Applying quality control to records



# Planning The EDMS: The TIC Role

---

Develop A BMDO Thesaurus

Records Management And TIC Requirement

Similar In format To The DTIC Thesaurus

Many Sources Of Vocabulary

**TO SCAN OR NOT TO SCAN:  
DIGITIZE THE TIC**

# To Scan Or Not To Scan

---

Evaluate The Collection

Condition

Age & Preservation Requirements

Format & Special Scanning Needs

Documents Not To Scan

Size And Scope

48,000 Documents

4,107,927 Pages

Acquisition Rate

117 Documents Monthly

1,062 Pages Monthly

# To Scan Or Not To Scan

---

Evaluate The Collection

Suitable For Scanning

Copyrighted

Record Or Document

Long-Term Retention Potential

Short-Term Retention Potential

Candidate For Withdrawal

Frequently Requested

Classification And Distribution Statements

# To Scan Or Not To Scan

---

External Sources For Digital Documents

DTIC Full Text Electronic Records

Originating Office Within BMDO

Originating Contractor

Internet

Internal Scanning Project

# Y2K MOVE: A DIGITAL TIC

# Y2K Move: A Digital TIC

---

Movin' On...

Living Life On The Cutting Edge

Give Me Room To Grow!

# CONCLUSION



# Conclusion

---

Identify Requirements  
Specifications & Standards  
DoD And Agency Directives  
Office Requirements  
Determine Impacts  
Floor Space  
Staffing  
Work Flow  
Identify Allies  
Plan, Plan, Plan!

**THE END**

# The Digital Future -

## Digitizing the Collection at the

Naval Research Laboratory



*42nd Military Librarians Workshop,  
17 November 1998, Alexandria, VA*

Patricia A. Ames  
Ruth H. Hooker Research Library  
Naval Research Laboratory





## Who We Are

- Naval Research Laboratory's Technical Library
- Dispersed user population (NRL/DC; Stennis Space Center, MS; Monterey, CA; ONR HQ, VA)
- Multiple subject areas (Physics, Chemistry, Electronics, Space Sciences)
- Large research reports collection (classified and unclassified)
- Progressive program for desktop access to information

## Research Reports Collection

- +185,000 *unclassified* reports
  - Issued by government, academia, industry
  - 16,000 authored or co-authored by NRL scientists
  - Average report size - 55 pages
- +100,000 *classified* reports
  - Produced by government and government contractors
  - Average report size - 100 pages

# THE PROBLEM

- Space at a premium - became critical in 1988
- Deteriorating condition of paper documents
- Documents scattered to several storage locations
- Maintenance requirements high

## Options Considered

- Move the reports
- Destroy some or all of the reports
- Change the media of the reports from paper to:
  - Microfilm
  - Microfiche
  - CD ROM
  - Optical Disk

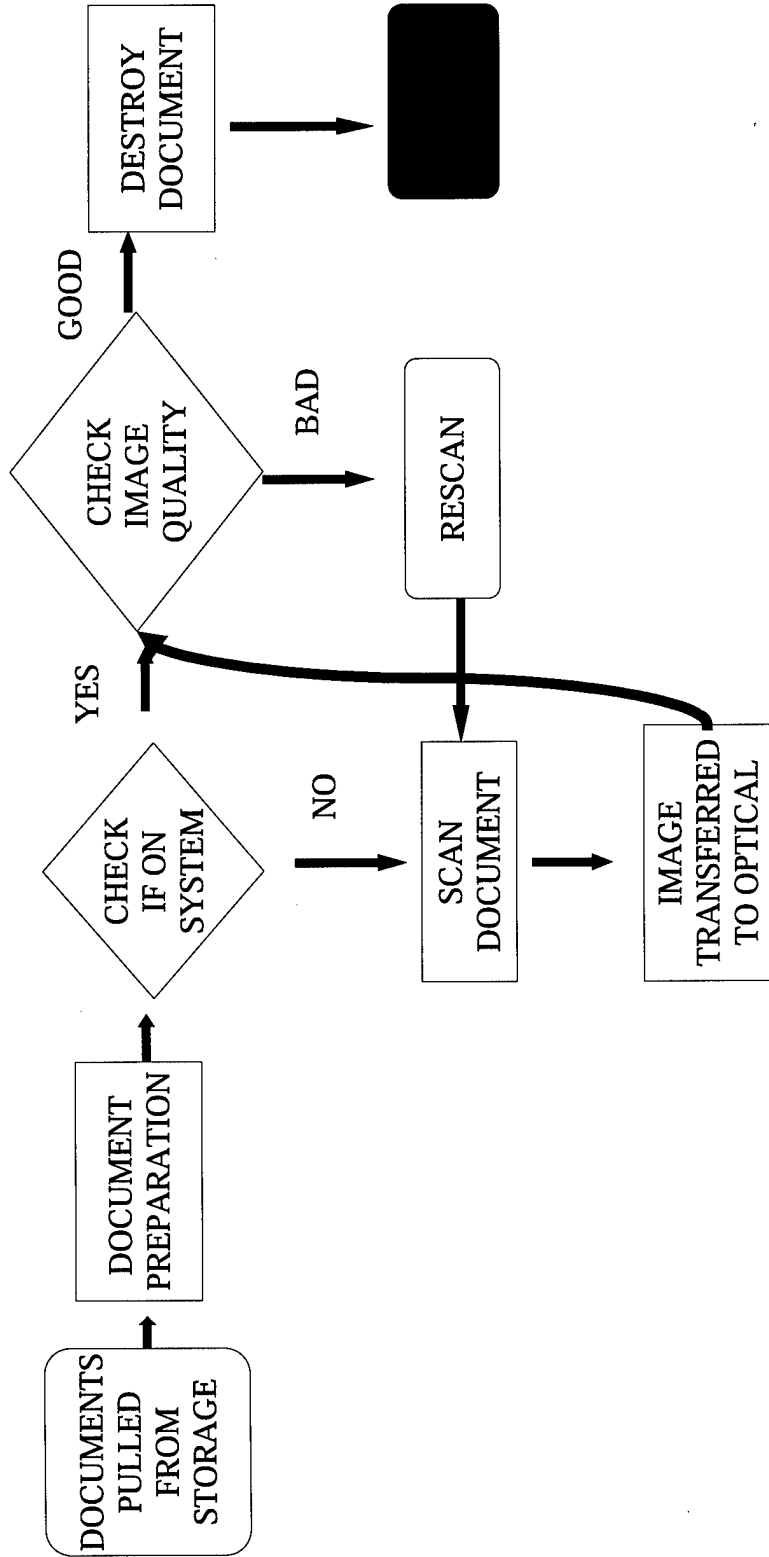
## Why Optical Disk

- **Storage** - done in-house, transportable media, dense, flexible
- **Maintenance** - long shelf life, high quality images, order immaterial, changes and corrections can be added at any time
- **Retrieval** - fast, networkable, automatic



- Use of optical disk storage began in 1989
- Over 185,000 reports - +9 million pages scanned
- Report images are linked to STAR online catalog
- GeneSys ImageExtender is linking software
  - Catalog search retrieves report record in STAR
  - Toggle to Docview (DDE) to retrieve report images

# Optical Disk Project Work Flow



## **Documental D's 4030 Scanner**

- Scans at 300 dpi
- CCITT Group IV compression
- 40 sheets per minute
- Continuous or manual feed
- Scans both sides at once
- Equipped with preview monitor
- Offers "endorser" capability

## Sony Autochanger

- About the size of a refrigerator
- Holds 50 12-inch WORM disks
- Each disk holds 6.5 GB (130,000 typed pages)
- 1 Autochanger stores contents of 500 file cabinets
- Autochangers can be daisy chained

- Classified Internet access (SIPRNet)
- FASTLANE KG-75 (prototype)
- SIPRNet access available on all workstations of classified LAN
- STAR catalog on SIPRNet
- Hyperlinks to optical images of reports on SIPRNet

## RAID Storage

- Redundant Array of Inexpensive Disks
- Controller with many magnetic hard drives (not as expensive to replace individually)
- Current configuration- 600 GB (expandable)
- Built in redundancy
- Speed of access
- No mechanical parts to break down

- Signed MOA with DTIC - DTIC to scan classified documents; NRL to provide copies of unclassified images to DTIC
- Bibliographic data for all *unclassified* NRL reports available in WebCat with hyperlinks to ...
- Copies of *unclassified/unlimited* NRL reports available via TORPEDO
- All reports available on *classified* STAR system with images hyperlinked

## Possible Pitfalls

- Proprietary software
- Non-standardized formats
- Interoperability
- Data compatibility
- Quality assurance
- Back-ups
- (Cont.)



## Possible Pitfalls (cont)

- Can servers handle the traffic?
- Maintenance availability
- User interfaces
- Documentation
- Reliable power source (UPS)
- Spare parts
- What do you REALLY need?

MILITARY LIBRARIANS WORKSHOP  
Tuesday, November 17, 1998  
3:45-4:45 p.m.  
BREAKOUT SESSIONS II: — Digital Library Potpourri

## Resource Sharing in an Electronic World – Approaches and Lessons Learned

### SPEAKERS

#### Fred Rettenmaier

Coordinator for Access and Services  
Email: fredr@library.nrl.navy.mil  
Office Phone: (202) 767-5363  
Naval Research Laboratory  
The NRL Ruth H. Hooker Research Library and Technical Information Center  
(<http://infoweb.nrl.navy.mil/>)

– Scientific R&D mission support; concentrating on recent (last 5-years) STI. Supports the NRL research effort by providing professional library/information services to the Washington, DC campus and by implementing networked systems to facilitate access to information by NRL employees nationwide.

#### Susan Goodman

Chief, Reference Branch  
Email: sgoodman@max1.au.af.mil  
Tel: (334) 953-8301  
Air University Library (<http://www.au.af.mil/au/aui/aui2.htm>)

– Academic mission to support student education and faculty teaching and research needs requiring current and historical information. Primarily serves campus population and AU students participating in distance education worldwide.

Sue Goodman currently serves as Chief of the Reference Branch at Air University Library. The Reference Branch includes: the Reference Department, Periodicals, Electronic Services, Interlibrary Loan, and the Senior. Non-Commissioned Officer Academy Library (SNCOA) Ms. Goodman has been on the AUL staff for 17 years. Previous AUL positions include: Air War College Bibliographer, Squadron Officer School Bibliographer, Editor, and Periodicals Assistant Librarian. Before coming to AUL, she worked at Erling Rees Research Library (International Paper Co.) in Mobile; and Mobile College as a reference librarian. She holds a MLS from the University of Alabama and a BS from Mississippi University for Women

#### Martha Fishel

Deputy Chief, Public Services Division  
Email: martha\_fishel@nlm.nih.gov  
Tel: (301) 496-5501  
National Library of Medicine (<http://www.nlm.nih.gov/about/welcome.html>)

– The world's largest biomedical library and archive. Serves more external than internal users.

Martha R. Fishel has been at the National Library of Medicine since 1976, where she currently holds the position of Deputy Chief, Public Services Division. Prior to that, she worked in the Library's Serial Records Section. She has been involved with the DOCLINE and SERHOLD systems since their inception in 1979/80, and was instrumental in the development of Loansome Doc, the document delivery service under Grateful Med and Pubmed. Most recently she has been involved in the implementation of Relais, a new document delivery processing system, and the installation of a commercial integrated library system, Endeavor's Voyager System.

## Resource Sharing in an Electronic World – Approaches and Lessons Learned

### Observations and Issues:

Electronic information is more complex to buy, to integrate into the collection, to provide access to, to regulate, and to renew. Complex non-standardized pricing structures, license review, negotiation and compliance involve: legal terminology; definition of user population; definition of location(s) from which users may access, definition of authorized uses - including quotations, copying, printing; redistribution; systems assessment for user access and authentication; copyright and intellectual property; resource-sharing and traditional interlibrary loan; and, archiving.

### Librarian's Creed: *Is this so?*

Modern librarianship as defined by the last 100 years assumes an underlying resource sharing and cooperative work ethic. Developments in modern resource sharing...do not have to alter this ethic. Morgan, "Resource Sharing and Consortia, or, Becoming a 600-Pound Gorilla," *Computers in Libraries* v18, n4 (April 1998). Abstract: <http://www.infoday.com/cilmag/apr/cilab4.htm>

### Collection Development:

#### *Access vs. Ownership*

Is the library becoming more gateway than repository when more and more materials are not being acquired but pointed to?

#### *Pay per view?*

Libraries have grown the information industry of bibliographic utilities and online database aggregators.

#### *Buy it or borrow it?*

Jackson, Mary: FINDING: On average, the unit cost to research libraries to borrow an item on interlibrary loan is \$18.35, and the cost to lend an item is \$9.48. Average borrowing turnaround time is 16 calendar days, the borrowing fill rate is 85%, and the lending fill rate is 58%.

#### *Strength in numbers?*

Consortial arrangements and partnerships.

#### *Archiving*

Who has the last copy?

### Copyright and Fair Use

Laws; licensing terms and conditions of use, both explicit and implicit.

NLM Copyright of Abstracts & Downloading Small Amounts of MEDLARS® Data for Redistribution <http://www.nlm.nih.gov/databases/download.html>

Digital Millennium Copyright Act and its impact on fair use.

### Changed User Expectations

Dramatic shift in information delivery patterns brought about by the Web?

Mediated vs. unmediated; OCLC Direct Request; Uncover  
User Authorization and Authentication

### Electronic Document Delivery:

Full-text on the web in html, pdf, tiff

Email attachments

FTP

FAX

Ariel

MILITARY LIBRARIANS WORKSHOP  
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BREAKOUT SESSIONS II: — Digital Library Potpourri

## Resource Sharing in an Electronic World – Approaches and Lessons Learned

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<http://info.lib.uh.edu/sepb/sepb.html>

Serials in Cyberspace

<http://www.uvm.edu/~bmaclenn/>

North American Serials Interest Group Links to Other World-Wide Web Resources

<http://nasig.ils.unc.edu/public/other-links.html#reference>

IFLA Library and Information Science: Interlibrary Loan, Document Delivery and Resource Sharing  
<http://www.nlc-bnc.ca/ifla/ll/ill.htm>

Liblicense: Licensing Digital Information: A Resource for Librarians. Yale University  
<http://www.library.yale.edu/~llicense/index.shtml>

Software and Database License Agreement Checklist, University of Texas  
<http://www.utsystem.edu/OGC/IntellectualProperty/dbckfrm1.htm>

Document Delivery Suppliers. Shipman, Jean  
<http://www.nlm.nlm.nih.gov/pnr/docsupp/>

National Network of Libraries of Medicine Document Delivery Service Information  
<http://www.nlm.nlm.nih.gov/nnlm/docdel/>

**Resource Sharing in an Electronic World**  
**Air University Library**  
**Ms. Sue Goodman**

**SLIDES ONLY**

*Air University Library*





# *Air University Library*

- *War Fighting*
- *Aeronautics*
- *AF and DOD Operations*
- *Military Sciences*
- *International Relations*
- *Education*
- *Leadership*

# *Air University Library*

## *Databases*

**Solinet:**  
**Academic Universe**  
**Congressional Universe**

**NAAL:**  
**Britannica Online**  
**Galenet**

# *Air University Library*

## *Databases*

**AFLIS:**  
**EBSCO Academic Select**  
**FirstSearch**

**ACSC:**  
**Periscope**

# *Air University Library*

*Databases*

**On Our Own:**

**CIAO**

**Army, AF, Navy Times Pubs.**

**With Paper Subscriptions:**

**Chronicle of Higher Education**

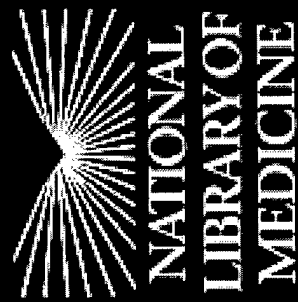
**Forecast Int'l/DMS**

**New England Jnl of Medicine**

**New York Times Online**

**Resource Sharing in an Electronic World**  
**National Library of Medicine**  
**Ms. Martha Fishel**

**SLIDES ONLY**



# **The National Library of Medicine Mission, Goals and Services**

**Military Librarians Workshop  
November 17, 1998**

## **NLM Mission**

- **The National Library of Medicine collects, organizes, and disseminates the biomedical literature of the world in order to advance the medical and related sciences and to improve the public health. The Library serves as a national information resource for research, health care, the education of health professionals, and service activities of Federal and private agencies, organizations, institutions, and individuals.**

## • NLM's Military History

- Library started in 1836 in the Office of the Surgeon General, U. S. Army
- One year after the Lincoln assassination in 1864, the Library moved into Ford's Theatre
- 1865-1895 John Shaw Billings became Director of the Army Medical Library
- Under Billings, the Library was relocated on the Mall, where the Hirshhorn Gallery now resides
- Billings started the Index Catalog and Index Medicus



## History of NLM

- After WWII, the Army Medical Museum and Library as it was by then called, was renamed the Armed Forces Medical Library.
- The Library Stayed in the military until 1956, when it became part of HEW (now HHS)
- The Museum moved to Walter Reed, and the Library moved to NIH in 1961. It officially became part of NIH in 1968.

# **NLM's National Services to Libraries**

- **Include:**
  - **Cataloging**
  - **Database leasing and licenses**
  - **Document Delivery and DOCLINE**
  - **National Network of Libraries of  
Medicine**
  - **Preservation and Collection  
Management**
  - **Serials Union list products**
  - **Reference and Customer Service**

## **Size of NLM Collection**

- **5 million volumes**
- **over 80,000 serial titles in collection**
- **22,250 journal subscriptions**
- **190 electronic journals (currently only 2 paid subscriptions)**
- **receive 150,000 serial issues annually**
- **20,000 monograph items annually**

## **Scope of NLM Collection**

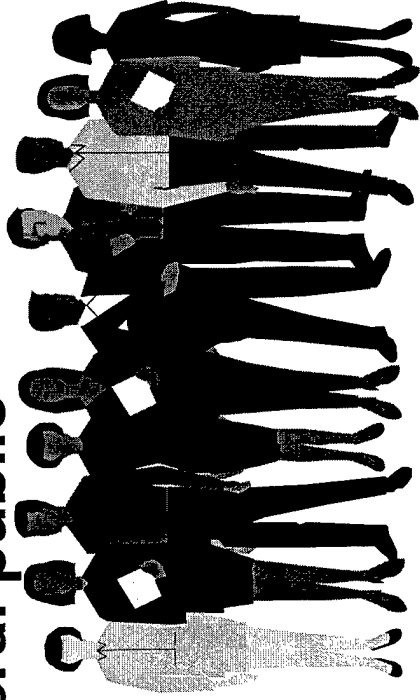
- **Comprehensive collection of substantive biomedical publications**
- **Recognizes the importance of consumer health**
- **Does not collect information written for the public**

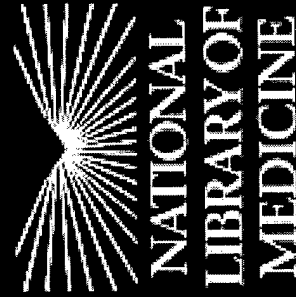
# **NLM Collection Development**

- **Comprehensive Collection Development Manual covers all material types**
- **8 Monograph selectors**
- **over 50 languages**
- **Serial selection by 4-5 serial bibliographers**

# Customer Service Policy

- **Primary Customers**
  - health sciences librarians
  - health professionals
  - scientists & researchers
  - health sciences students
  - historians
- **Also available to the general public**





# Services for Researchers

## Free MEDLINE: PubMed and Internet Grateful Med



On June 26, 1997, NLM announced that its MEDLINE database of more than 9 million references to articles published in 3900 biomedical journals may be accessed free of charge on the World Wide Web. Two Web-based products, PubMed and Internet Grateful Med, provide this access. Below is a brief description of each system. For further information, see the documentation at each site. Health consumers are encouraged to discuss search results with their health care provider.

### PubMed

- Provides free access to MEDLINE.
- Sets of related articles pre-computed for each article cited in MEDLINE.
- Can use Loansome Doc Document Delivery service (local charges and delivery methods may vary).
- Medical Subject Heading (MeSH) Browser.
- Citation Matcher
- Choice of Web search interfaces from simple keywords to advanced Boolean expressions. Field restrictions and MeSH index terms (main topics and subheadings) supported.
- Linkages to publishers' sites for full-text journals. Approximately 100 journals available, some by subscription only.
- Clinical query form with built-in search filters for diagnosis, etiology, therapy, and prognosis.
- Links to molecular biology databases of DNA/protein sequences and 3-D structure data.

### Internet Grateful Med

- Provides free access to MEDLINE, AIDSLINE, HealthSTAR, AIDS DRUGS, AIDS TRIALS, DIRLINE, HISTLINE, HSRPROJ, OLD MEDLINE, and SDLINE.
- Can use Loansome Doc Document Delivery service (local charges and delivery methods may vary).
- Utilize full range of Medical Subject Heading (MeSH) search features via UMLS Metathesaurus.
- Ability to limit searches by language, publication type, age groups, etc., using pull-down menus.

- **LOCATOR online catalog**

- **CATLINE - books**
- **AVLINE - audiovisuals**
- **DIRLINE - organizations**

- **Free MEDLINE via WWW.NLM.NIH.GOV**

- **Internet Grateful Med**
- **PubMed**

## More Services...

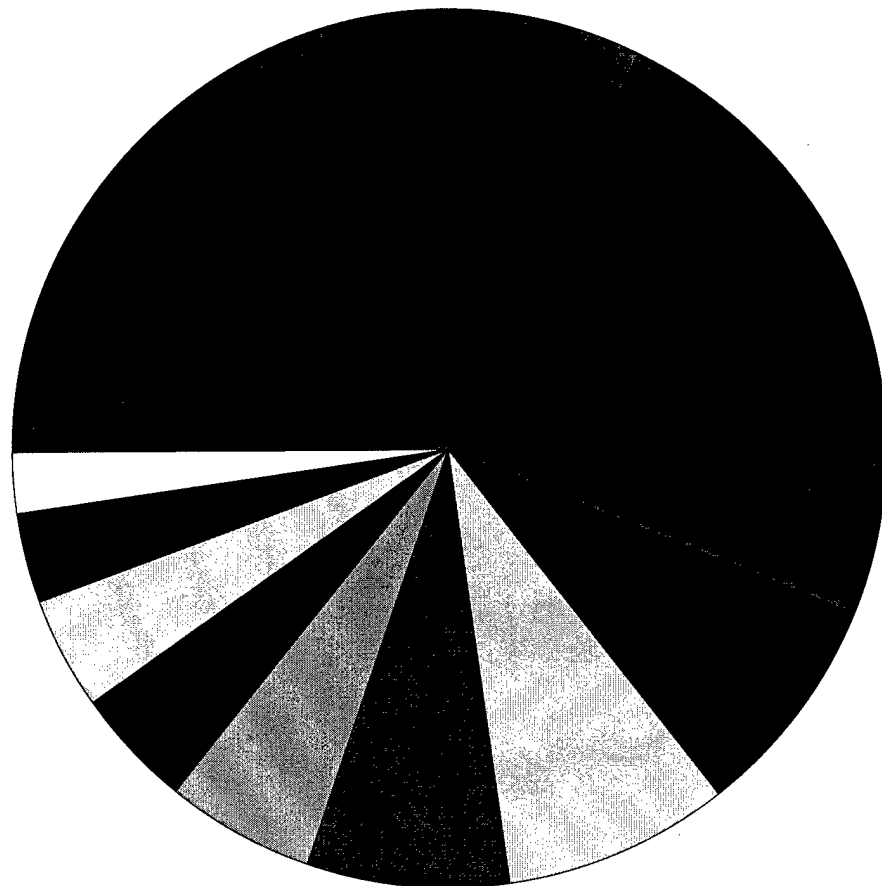
- AIDS-related databases
- HSTAT full-text clinical practice guidelines
- Images from the History of Medicine
- MeSH (Medical Subject Headings)
- NCBI - GenBank, The Human Gene Map
- NIH Clinical Alerts
- Telemedicine Projects
- Visible Human Project



# Services for Researchers Visiting the NLM

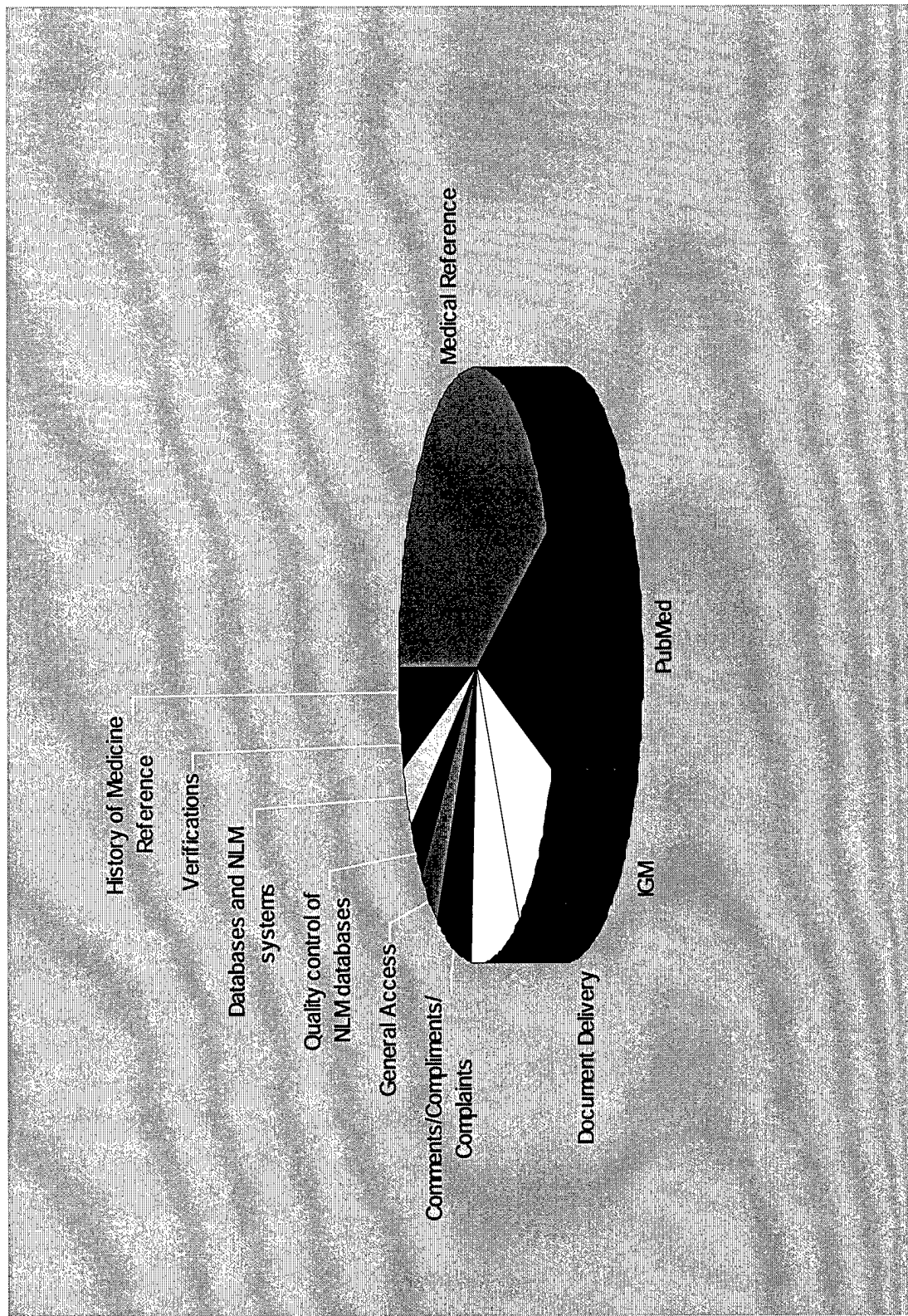
- Reference Librarian on duty 8:30am - 5:00pm
- Locator (online catalog) with Internet Grateful Med and PubMed for free MEDLINE searching
- 5M items in Closed Stacks (12/day limit)
- Reading Room Collection
  - 4,500 key textbooks
  - indexes and abstracts (print & CD-ROM)
  - 10 year collection of 180 major journals
- Learning Resource Center
- History of Medicine Reading Room
- Scholar Study Facilities

# Customer Service Survey Top Ten Reasons for calling



- Reference Q
- Verification
- MEDLARS Codes/Admin
- Dbases/NLM Systems
- Document Delivery/ILL
- Gen Access
- Dbases/NLM
- GM-DOS
- Web
- PubMed

# Top Ten Categories of E-Mail Questions FY 98



# Indexing Selection

- NIH chartered committee: Literature Selection Technical Review Committee (LSTRC)
- LSTRC meets 3 times per year
- 15% - 20% of an average 120 titles reviewed are selected, others may be dropped
- Currently 3900 titles are indexed in Index Medicus

## **Indexing Selection Criteria - also applies to electronic journals**

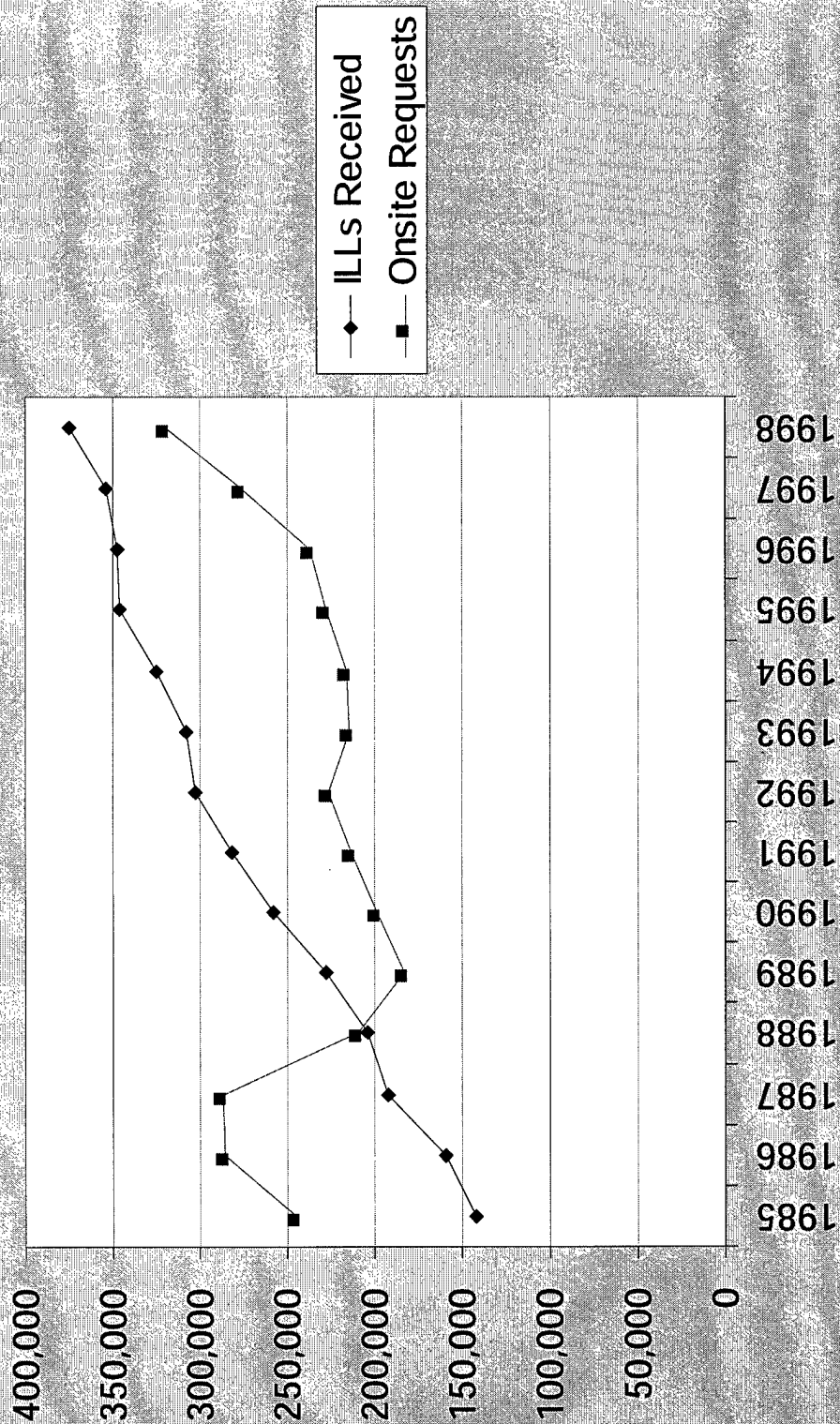
- Scope and Coverage: Core biomedicine, audience=health professionals, researchers
- Quality of Content: scientific merit, originality, validity, importance, contribution to the field
- Quality of Editorial Work: peer reviewed, evidence of ethical guidelines
- Production Quality: layout, printing, graphics, illustrations, acid-free paper

## Document Delivery in FY98

- 374,791 Interlibrary loan requests
- Filled: 275,588 (74%)
- 90% filled in 1 day
- average 1400-1700 requests per day
- 319,490 Onsite requests (main circulation desk)
- 247,493 (77%) filled
- Average 1200-1300 requests per day

# Rise in Document Delivery

Document Delivery



# NLM Analysis of E-Journals

NLM analyzed 273 e-journals available in

Pubmed: 7 categories:

1. E-journals indexed in MEDLINE (8)
2. E-journals Indexed elsewhere
3. E-journals NOT indexed
4. E-journals enhanced from paper (NLM indexes paper copy)
5. E-journal enhanced from paper copy (paper indexed elsewhere)
6. E-journal and paper content the same
7. On-line content less than print



## Access to Electronic Journals


- As of Sept 1998, Pubmed provides links to publishers for 273 journals (\*preceding title)
- Some are licensed - others require user to make contact at licensing site
- NLM does not currently supply printed copies on ILL for journals in electronic format only
- journals in both formats are supplied in hard copy, or scanned and delivered over the Internet using Relais System.

## **Selection Criteria for E-Journal Workstation in Reading ROOM**

- 1. Theme of Site Contents (purpose is to provide access to journals in e-format)**
- 2. Sources of E-Journals - many are produced by Federal Government**
- 3. Ease of Use - must be user-friendly, clear concise instructions, publications must be in full-text format**
- 4. Currency**
- 5. Uniqueness**

# Electronic Journals in NLM Reading Room

Electronic Journals - Netscape  
File Edit View Go Communicator Help



**NLM DISCLAIMER**  
**COMMENTS & SUGGESTIONS**

## Electronic Journals

**GO TO HEALTH INFORMATION WEB SITES**

**GO TO D.C. AREA LIBRARIES**

**GO TO GOVERNMENT DOCUMENTS**

**GO TO ELECTRONIC JOURNALS**

**COMMERCIAL ELECTRONIC JOURNALS**

**GOVT PRODUCED ELECTRONIC JOURNALS**

**COPYRIGHT**

## Commercial Electronic Journals

**DIGITAL JOURNAL OF OPHTHALMOLOGY**

**ALZHEIMER'S DISEASE REVIEW**

**WOMEN'S HEALTH**

**MOLECULAR VISION**

**PEDIATRICS**

**Women's Health**  
ID=nlmej  
PASSWORD=nlmrr  
(indexed in MEDLINE)

**MOLECULAR VISION**  
(indexed in MEDLINE)

**PEDIATRICS**  
(indexed in MEDLINE)

**RSNA ELECTRONIC**  
ID=nlm  
PASSWORD

Document: Done

# Government Produced Electronic Journals in Reading Room

Electronic Journals - Netscape  
File Edit View Go Communicator Help

GO TO HEALTH INFORMATION WEB SITE

GO TO HEALTH INFORMATION WEB SITE

GO TO D.C. AREA LIBRARIES

GO TO GOVERNMENT DOCUMENTS

GO TO ELECTRONIC JOURNALS

## Electronic Journals

NLM DISCLAIMER

COMMENTS & SUGGESTIONS

**COMMERCIAL ELECTRONIC JOURNALS**

**GOVT PRODUCED ELECTRONIC JOURNALS**

**COPYRIGHT**

### Government-Produced Electronic Journals

**ALCOHOL ALERTS**

**FDA VETERINARIAN**

**EMERGING INFECTIOUS DISEASES**  
(Indexed in MEDLINE)

**FDA CONSUMER**  
(Indexed in MEDLINE)

**FDA MEDICAL BULLETIN**

**MMNR**  
(Indexed in MEDLINE)

**HAZARDOUS SUBSTANCES & PUBLIC HEALTH**

**HCFA HEALTH WATCH**



**NIDA NOTES**

**NLM NEWSLINE**

**Word on Health**

[Return to the top](#)

**Copyright**

Document: Done  
GroupWise: Calc...  
WordPerfect: (c)...  
WP Print Process  
Day  
Microsoft Excel...  
Microsoft Power...  
Electronic Jou...  
4:52 PM

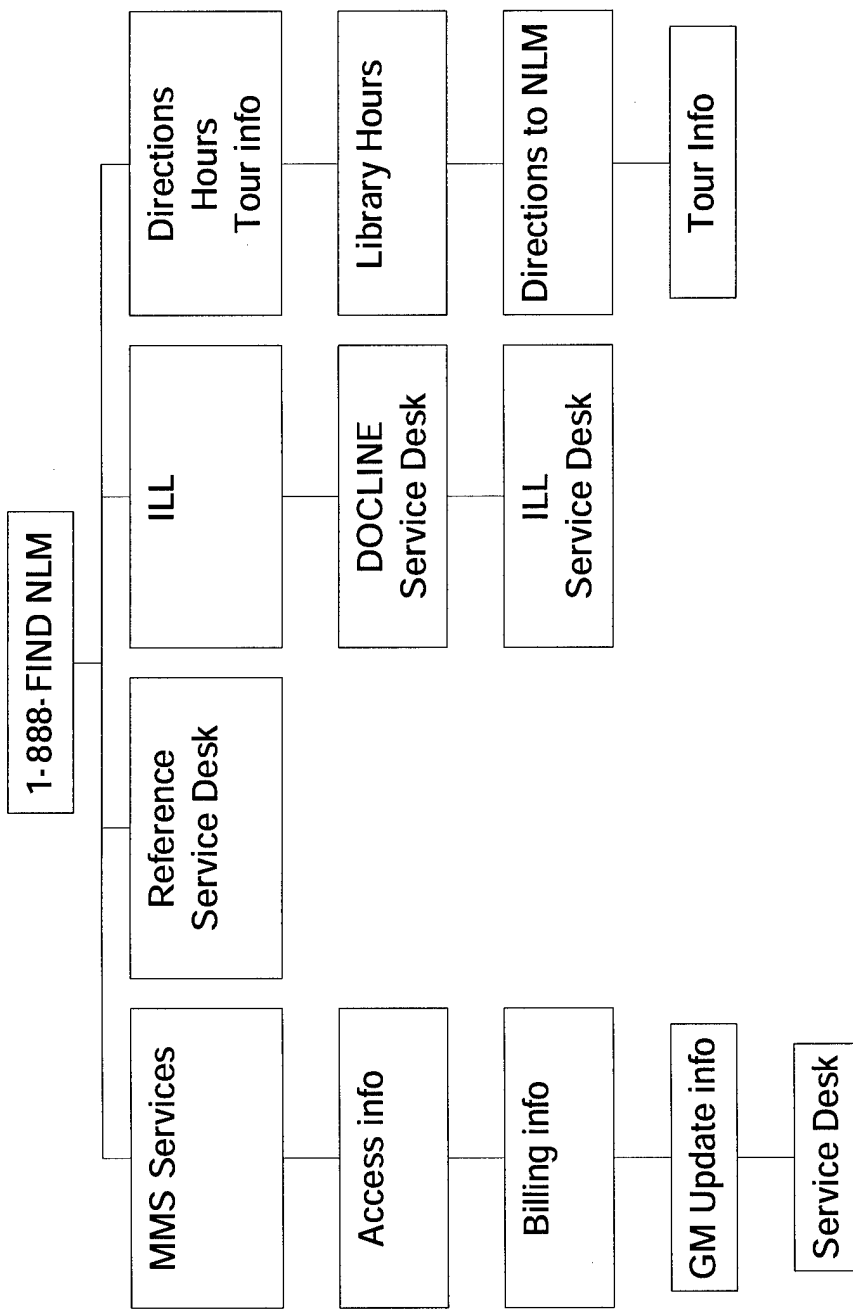
# NLM Operational Guidelines for Electronic Journals (Not yet in place)

- **Access** - onsite and offsite users should be able to view documents from e-journals acquired by NLM. Printed or electronic copies will be available on a cost-recovery basis according to fair-use guidelines
- **Acquisition** - E-journals will be selected according to the *NLM Collection Development Manual* and the *Guidelines for Selecting Internet Sources for Standard Descriptive Control (May 2, 1997)*

# NLM Operational Guidelines for Electronic Journals

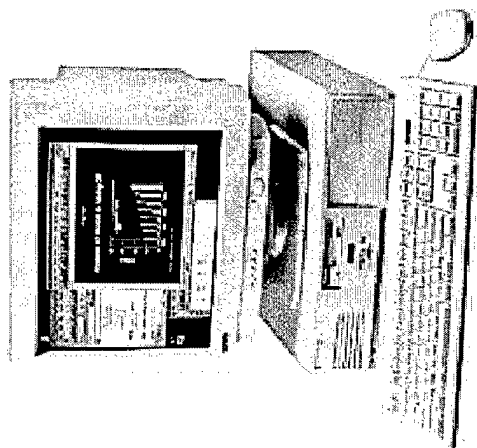
- **Bibliographic Control** - NLM will catalog, index, in-scope journals for which there is adequate identifying information. Publisher must supply SXML-tagged citation and abstract data if title is to be indexed
- **Preservation** - NLM does not yet know how to proceed. Research is planned

# Toll-Free Number Selections



# Customer Questions?

- [custserv@nlm.nih.gov](mailto:custserv@nlm.nih.gov)
- 1 - 888 - FIND NLM
- (1 - 888 - 346 - 3656)





**MODERATOR: MARCIA HANNA, DTIC**

**Digital Library Initiatives (DLI) in the Department of Defense**

Speakers will describe digital and virtual library efforts by the Defense Advanced Research Projects Agency (DARPA), Army, Navy, Air Force and DTIC.

Dr. Ron Larsen, Assistant Director of the Information Technology Office (ITO) at DARPA, will discuss highlights of progress made in DLI with a focus on technology objectives and approaches for Defense applications, as well as the anticipated challenges and directions for the future.

Marsha Dreier, Virtual Information Team Leader, of the Air Force Research Laboratory (AFRL), Phillips Site, Kirtland AFB, NM, will discuss opportunities available for electronic presentation at the researcher's desktop, projects under development and potential expansion.

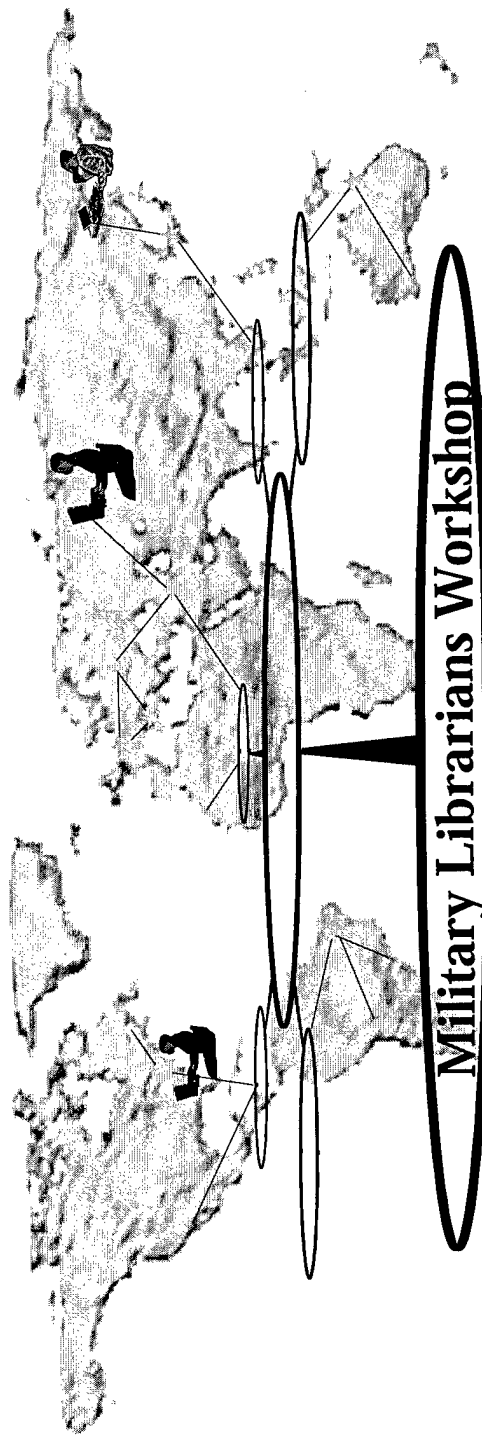
Ed Burgess, Archives Manager of the Combined Arms Research Library (CARL), will discuss a range of CARL's ongoing digital library initiatives, its achievements, problems, manpower costs, and planning issues. In addition, he will briefly discuss preservation, access, and tradeoffs between media.

Laurie Stackpole, Chief Librarian of the Ruth H. Hooker Research Library, Naval Research Laboratory (NRL), Washington, DC, will describe the NRL Library's efforts to provide users with unified access to both locally-mounted and remote databases and publications which, with the availability of the World Wide Web, have expanded to include the full content of library materials such as technical reports and scientific journals.

Dr. William Arms, Corporation for National Research Initiatives (CNRI), Reston, VA, will describe the Defense Virtual Library (DVL) prototype, the CNRI Repository Architecture and its Handle system for locating digital materials, the information retrieval system, and managing text, image and sound files.



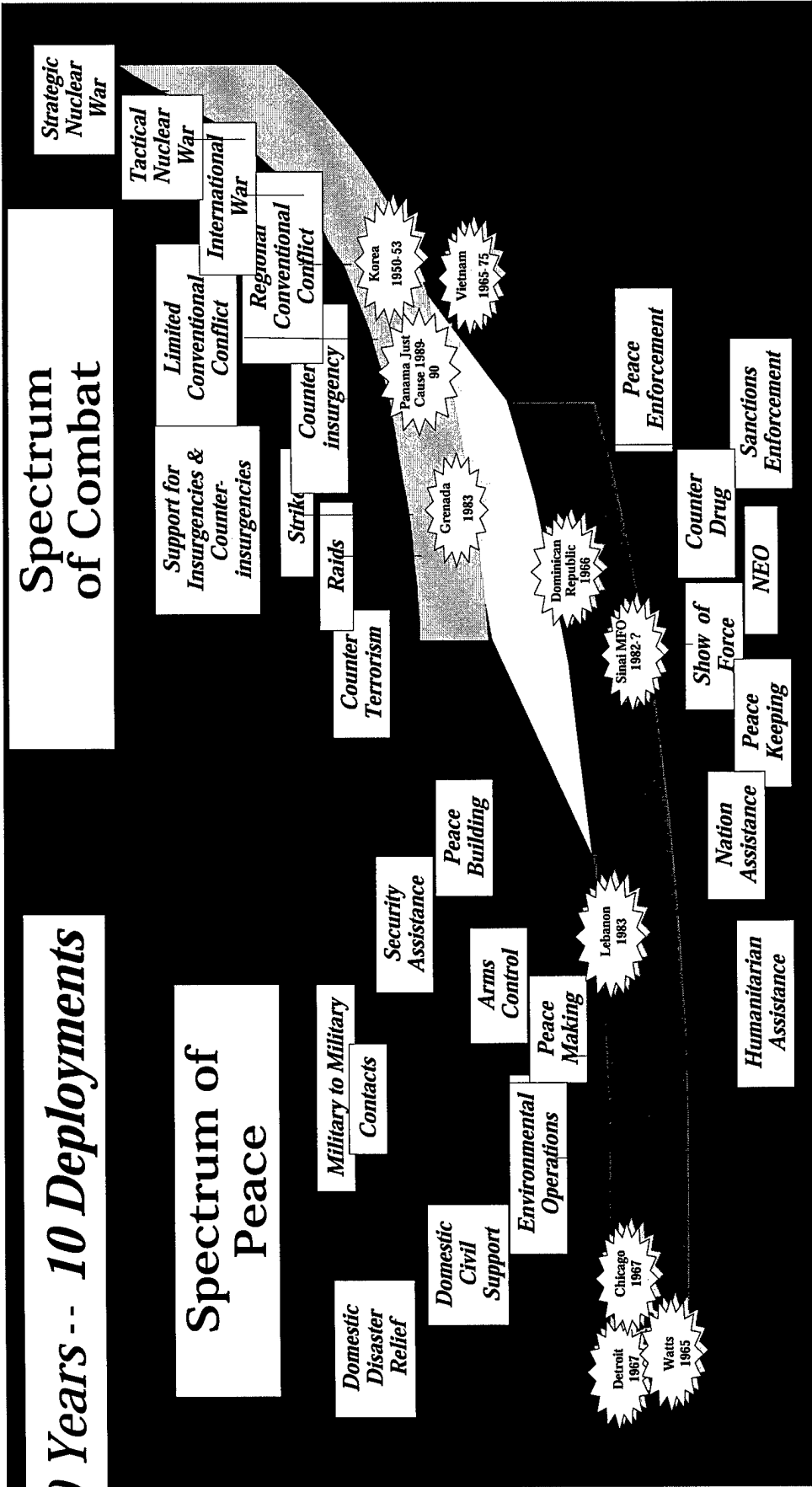
# Post-Millennial Digital Libraries



## Military Librarians Workshop

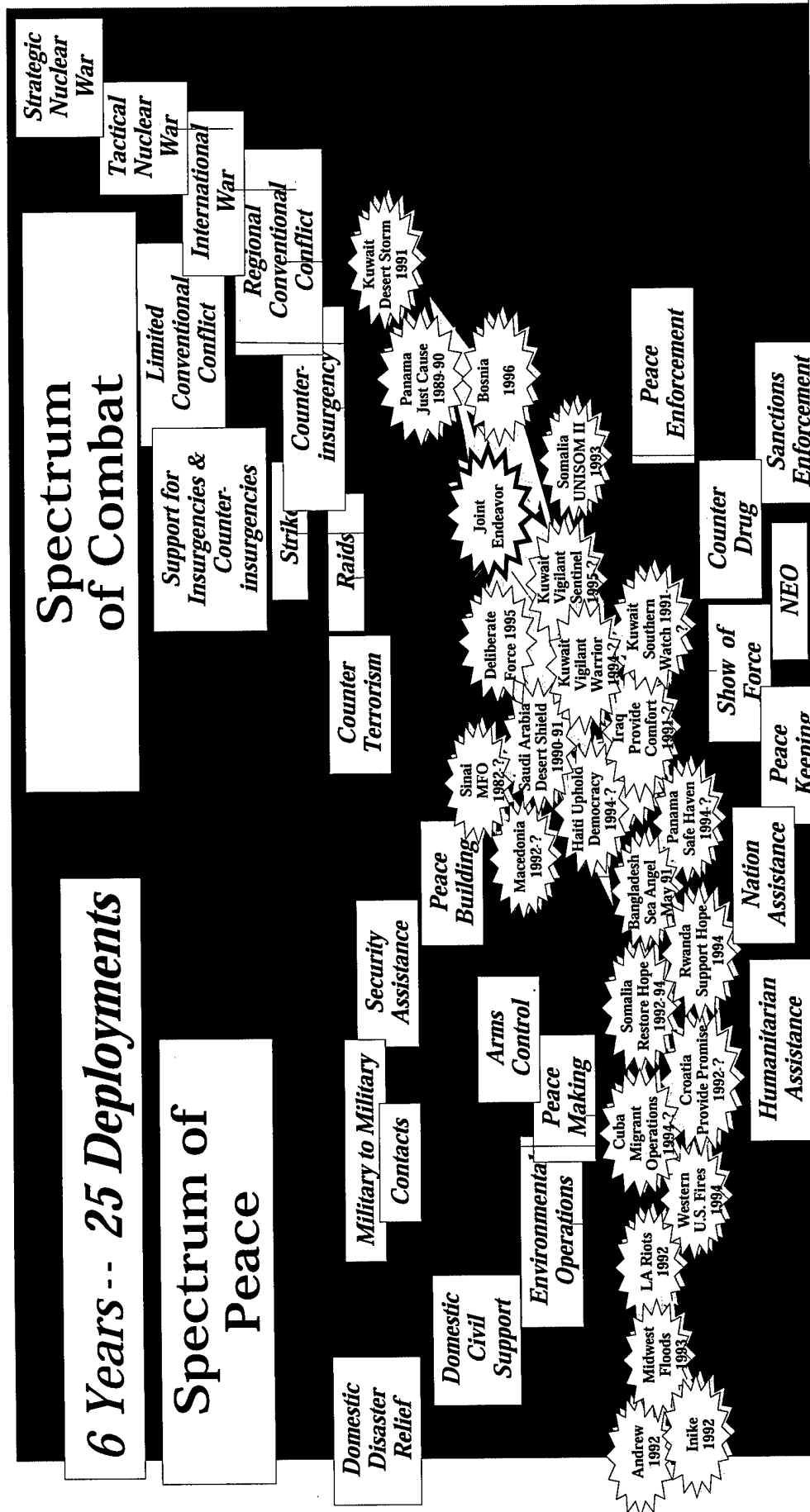


# Spectrum of Military Operations 1950-1989



40 Years -- 10 Deployments

# Spectrum of Military Operations 1990-1996

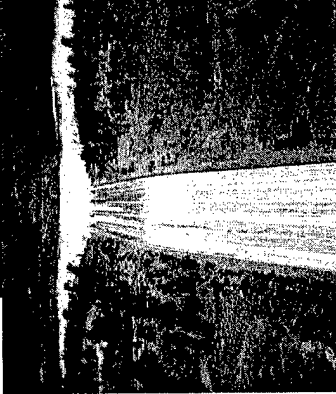
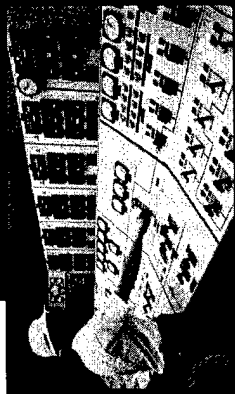


# Digital Libraries in Crisis Management

California Dept. of Water Resources (DWR) copes with floods of 1997

UC Berkeley  
Digital Library Project

- Automated scanning & structuring of DWR reports and tabular data
- Near real-time situation updates
- Geographic, image, text, and numeric data

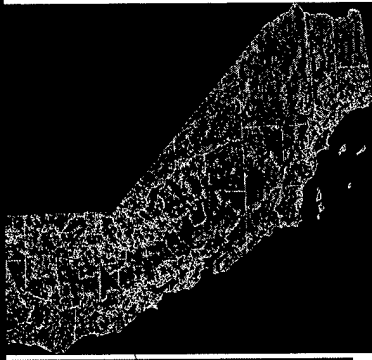


Oroville spillway - Normal



Information About the OROVILLE DAM

Item	Value
Name	OROVILLE DAM
State	CA
County	Butte
City	Colusa
State Route	99
County Route	000
Section	000
Block	000
Lot	000
Parcel Number	000
Area	000
Permit Number	000
Permit Date	000
Permit Type	000
Permit Status	000
Permit Fee	000
Permit Term	000
Permit Conditions	000
Permit Notes	000
Permit Attachments	000
Permit History	000
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Permit Conditions	000
Permit Notes	000
Permit Attachments	000
Permit History	000



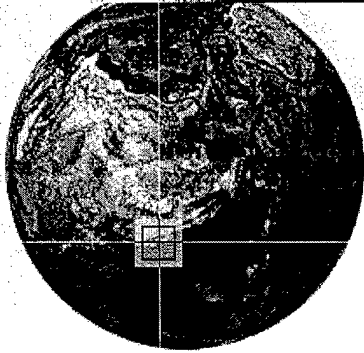
Colusa, CA - 1997



Oroville spillway - Flood

# Distributed Geospatial Repositories

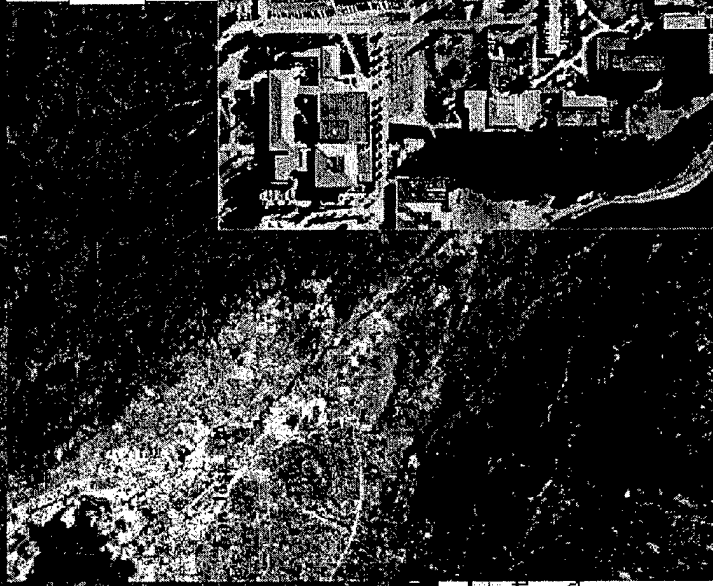
**ALEXANDRIA  
DIGITAL LIBRARY**



• Access by geographic region

• Search by name in Gazetteer

• FGDC Compliant



File Options View Tools

All Folders

ADL EXPLORER

Query History

Query 1

P-44719, [Rec

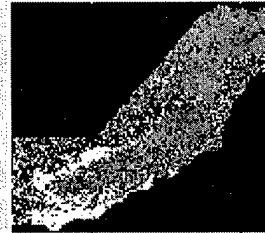
[Image show]

[Scan of] Nor

CUT COPY PASTE FOLDER RENAM

CURRENT FOLDER: Query 1 ITEMS: 10 out of 50

Thumbnail Imagery



Scan Information

TITLE: <image showing veget

TYPE: REMOTE-SENSING IMA

AVAILABLE AS: TIFF

BEGIN DATE: 1990-01-01

END DATE: 1992-12-31

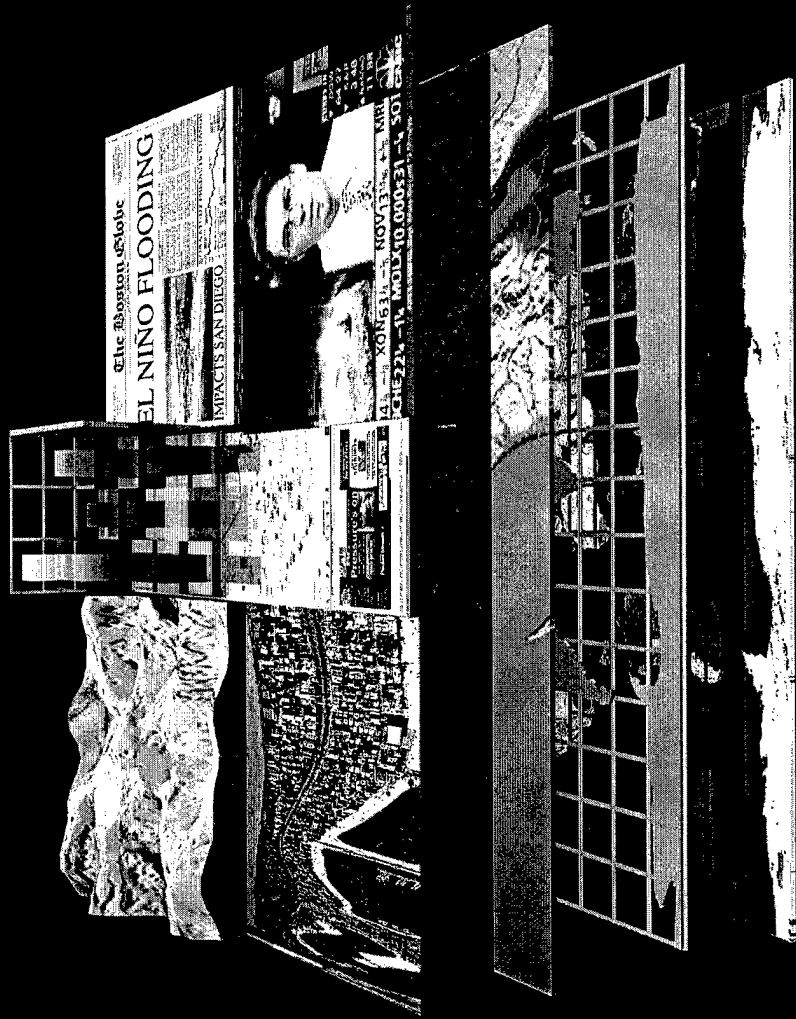
ID: adl\_catalog:1

METADATA ACCESS RESTORE

Move and Resize the Frame, or Select A Menu Option

# Geo-referenced Information Fusion

Integrated access to and utilization of geographically  
and temporally registered information



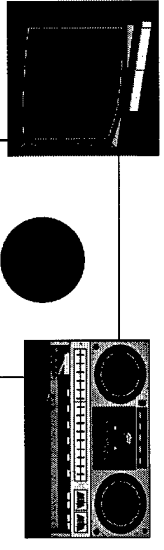
• Explicitly georeferenced material

- Maps
- Aerial imagery
- Databases

• Implicitly georeferenced material

- News reports
- Reference documents
- Literature

# Translingual Scenarios

<p><u>Korean Submarine Incident:</u>  <b>Different Viewpoints in Different Languages</b></p>	<p>Kim Young Sam declared that we must assume that armed North Korean agents have infiltrated into the South</p> <p>그러나 김대통령의 '무력도발 선언은 분명 심각한 단점이다.'          韓國北東部の海岸で北朝鮮の潜水艇を発見。入か、韓国テレビ報道</p> <p>However, President Kim's declaration of 'military provocation' was clearly a hasty remark.</p>	<p>A North Korean submarine was discovered on the East Coast of South Korea</p>
<p><u>GM/Volkswagen Spy Case:</u>  <b>Center of Action Moves Across National Borders</b></p>	<p>Judge Refuses Motion To Dismiss GM Case ...          GM says the stolen information included future product plans</p> <p>Im Streit der Autogiganten VW und GM/Opel gibt es wieder Hinweise auf eine gütliche Beilegung</p> <p>In the dispute between the autogiants VW and GM, there is again an indication of settlement</p>	<p>El ingeniero español José, Ignacio López de Arriortua dejó todos sus cargos en The Spanish engineer Jose Ignacio Lopez de Arriortua relinquished all of his duties as...</p>
<p><u>Peru Hostage Incident:</u>  <b>Mutinational, Multimodal Event Reports</b></p>	<p>Peruvian government rejected a proposal by the Tupac Amaru rebels</p> <p>En la residencia de su embajador en Lima, más de medio millar de personas participaban...</p>	<p>日本人24人を含む74人がお捕らわれているペルーの日本大使公邸入質事件は17日(日本時間18日)、発生から1カ月を迎えた。ペルー政府と犯行グループのトゥパカ・アマール革命運動</p> <p>a month has passed since the incident by which 74 people including 24 Japanese are held hostage</p> <p>Radio, TV Interviews in Japan</p> 



# Scalable Environments

Formulas Graphics Maps Images Audio Video Hypermedia

University of Michigan Digital Library

Skim Video (78 frames)

Frames Selected for Skim Audio (from Transcript)

- Agent architectures
- Real-time access
- Multimedia content
- Automated analysis
- Usability studies

Concept Clusters

Vocabulary Switching

Video Skimming

Vocabulary Switching

Concept Clusters

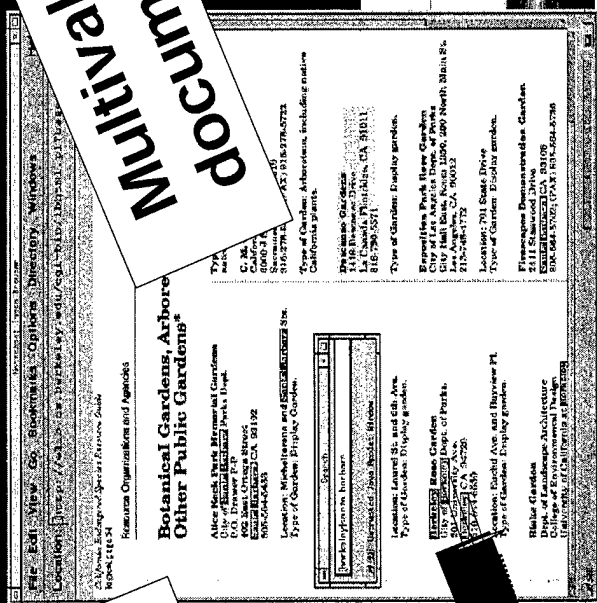
# Federated Repositories

Map browser  
& Gazetteer



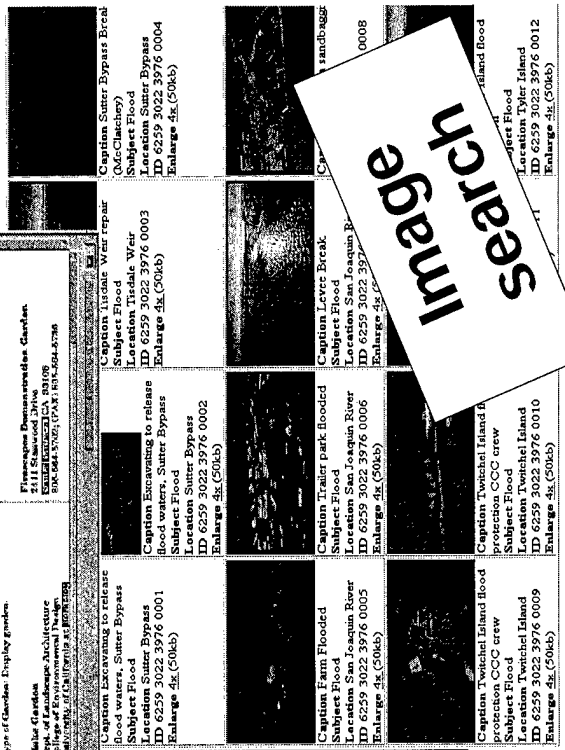
Search  
Texture

Interoperability



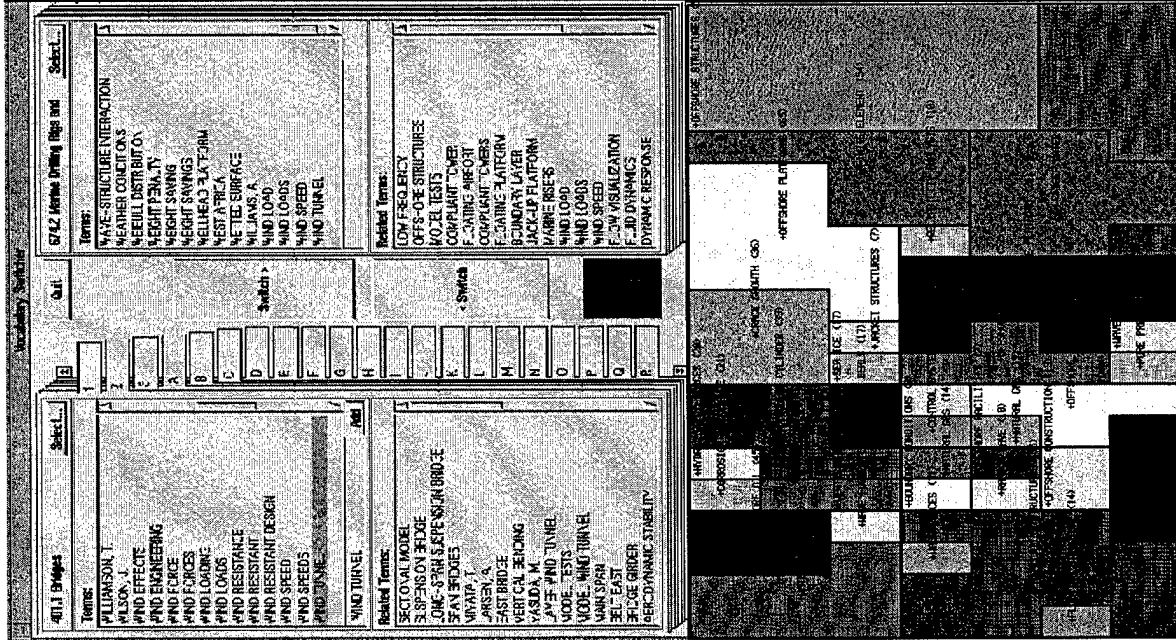
Multivalent  
documents

"... not a bounded, uniform collection of information, but an open-ended collection of services"  
T. Winograd



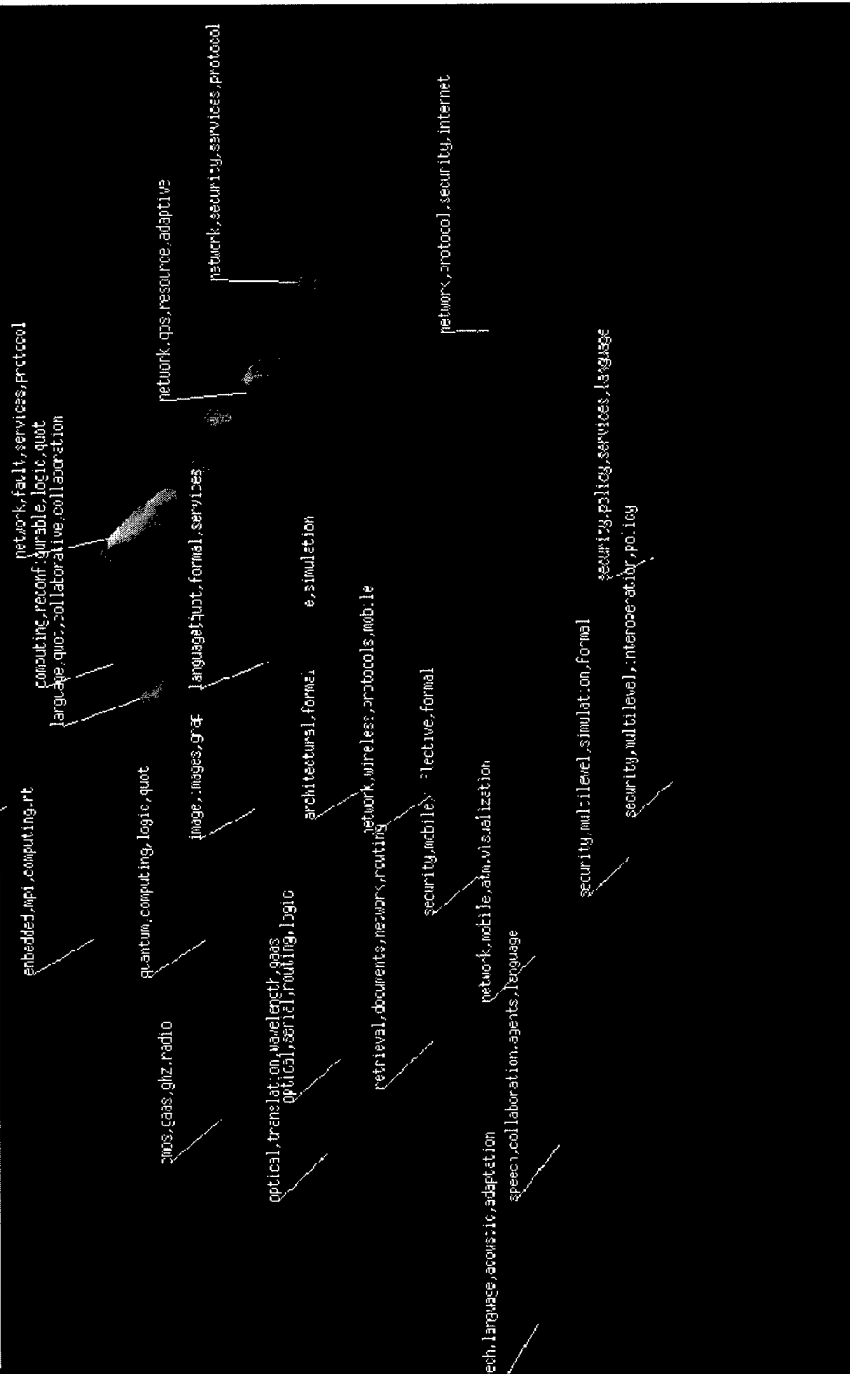
Search  
Image

# Visualization Alternatives to Search



• **Concept Clusters**  
 • **Vocabulary Switching**

• **Agent architecture:**  
 • **Results Fusion**



• **Automated Analysis**  
 • **Real-time access**

• **Multimedia content**  
 • **Usability studies**

# Technology Challenges

Networked Information Systems

Distributed Computing

Advanced Manufacturing

Real Time Request

Federated Repositories

Multilingual Interaction

USA

South Korea

UN

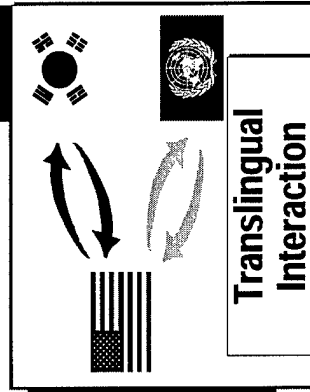
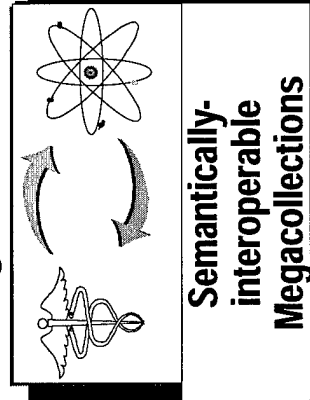
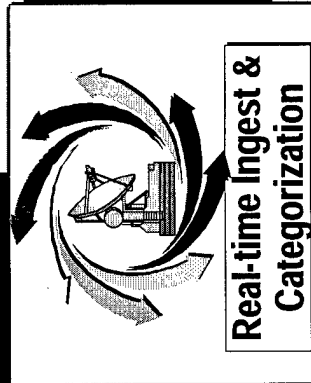
Information icons

# The Post-Millennial Digital Library



# The Post-Millennial Digital Library

- Exponential growth in available information, information sources, and services
- Critical requirement for timely and accurate information discovery, filtering, and fusion
- Seamless interaction and utilization across modes, media, and languages
- Absence of a priori knowledge of relevant information to specific situation
- Inextricable link between competitive advantage and information superiority



**Virtual**  
**Defense Library**

Defense Technical Information Center

William Y. Arms  
Corporation for National  
Research Initiatives

# Virtual Defense Library

## Defense Technical Information Center



[COLLECTIONS](#)   [SEARCH TIPS](#)   [PROJECT NOTES](#)   [RELATED LINKS](#)   [DTIC HOME](#)

### **Search**

- **Documents**
- **Photographs**
- **Sound Recordings**

The Defense Technical Information Center ([DTIC](#)), the Defense Advanced Research Projects Agency ([DARPA](#)), and the Corporation for National Research Initiatives ([CNRI](#)) are developing a pilot digital library implementation, building on Digital Object Architecture research. This project, called the Defense Virtual Library, is establishing a framework in which DTIC can build future network-based services and collections, and is developing a testbed in which to further develop and refine Digital Object Architectures.

This phase of the prototype introduces three separate, searchable collections in electronic format: technical reports; photographs from the Trinity Project; and sound recordings, including military band music and oral histories.

---

[collections](#) | [search tips](#) | [project notes](#) | [related links](#) | [dtic home](#)



## Defense Virtual Library

Presented by the Defense  
Technical Information Center

COLLECTIONS SEARCH TIPS PROJECT NOTES RELATED LINKS DTIC HOME

DOCUMENTS

PHOTOGRAPHS

SOUND RECORDINGS

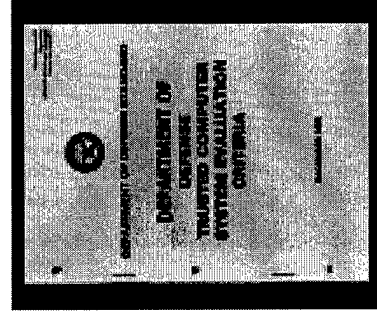
### The Documents Collection

#### DoD Technical Reports

The documents in the DVL prototype were selected from materials added to the DTIC Technical Reports collection in 1998. All are unclassified and unlimited. The subject matter reflects the diverse interests of the Department of Defense. The citations are taken from the DTIC online bibliographic database but were mapped to a MARC-like display. Many, but not all, of the citations refer to documents that are viewable full-text in both TIFF and Adobe Portable Document Format (PDF).

**Viewable documents for all citations could not be included in the prototype** because storage space was needed for experimentation with other media, such as photographs and sound. If you click on the Handle (see Search Tips) of a document for which full-text is not available, you will get a message that says "Digital Object Not Found".

#### Viewing the Documents



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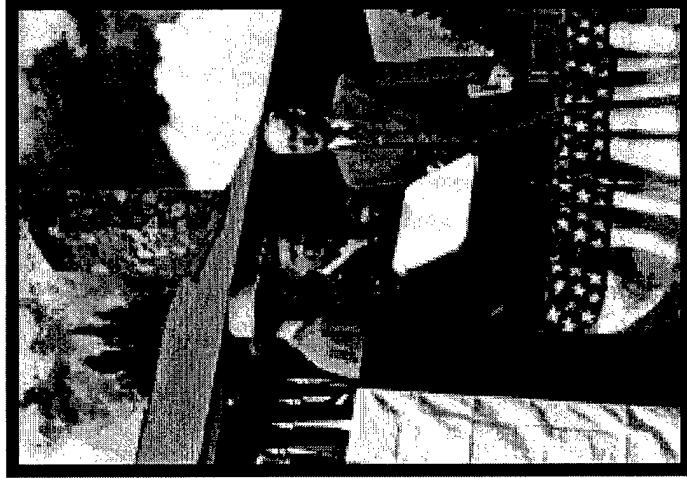
## The Photograph Collection

### The Trinity Project

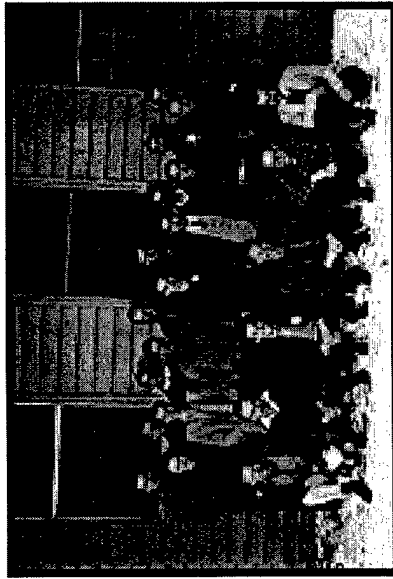
On July 16, 1945, at 5:29:45 a.m. the first atomic bomb was detonated at Trinity Site in New Mexico. This explosion was a critical turning point in US national defense. The 258 photographs in this collection depict the research, development, and testing of the bomb. They also depict people who played minor as well as major roles in the process, including some of their working and living conditions. Most of the photographs were taken by Los Alamos Scientific Laboratory staff during the period from 1943 through 1945.



Photography was essential for documenting every aspect of the scientific process. A wide variety of cameras, film and

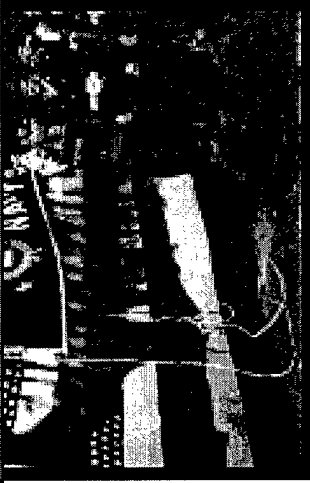


through 1945.



Photography was essential for documenting every aspect of the scientific process. A wide variety of cameras, film and

techniques were employed. Assembling and digitizing this collection was made possible through the cooperation of the Photography and Archivist Divisions of the Los Alamos National Laboratory.



- About the development of the bomb
- Remarks by witnesses to the Trinity bomb explosion

SEARCH THE PHOTOGRAPHS

[DVL home](#) | [documents](#) | [photographs](#) | [sound recordings](#)

***Virtual  
Defense Library***

Updated: October 1998  
Defense Technical Information Center  
[Comments](#) | [Questions](#)

# Defense Virtual Library

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[COLLECTIONS](#) [SEARCH TIPS](#) [PROJECT NOTES](#) [RELATED LINKS](#) [DTIC HOME](#)

[DOCUMENTS](#) [PHOTOGRAPHS](#) [SOUND RECORDINGS](#)

## Search the Photograph Collection (The Trinity Project)

Enter a general search term (or terms).

Search term:

Get:

▼ documents at a time.

[PHOTO SEARCH TIPS](#)

[NEW DOCUMENT SEARCH](#)

[NEW SOUND SEARCH](#)

# Defense Virtual Library

## Photograph Collection Search

### Search Results

2 items matched your search for "*#and(kitty)*"

Rank	Rating	Photograph Title
1	0.649	<u>Kitty Oppenheimer, photographed during the war in the Oppenheimer's Los Alamos sitting room</u> <a href="#">[graphic]</a> PH0000128
2	0.564	<u>Peter Oppenheimer, two years old, with his father's pipe.</u> <a href="#">[graphic]</a> PH0000133

PHOTO SEARCH TIPS

NEW SOUND SEARCH

NEW PHOTO SEARCH

NEW DOCUMENT SEARCH

[collections](#) | [search tips](#) | [project notes](#) | [related links](#) | [DTIC home](#)  
[DYL home](#) | [Comments/Questions?](#)

## Defense Virtual Library

### Photograph Collection Search

Handle: [100.1/PH0000128](http://100.1/PH0000128)

**Photograph Title:** **Kitty Oppenheimer, photographed during the war in the Oppenheimer's Los Alamos sitting room [graphic].**

**Created/Published:** [between 1943 and 1945, copy negative 1980]

**Summary:**

**Biographical/Historical Note:** As the wife of J. Robert Oppenheimer, Katherine [Kitty] P. Oppenheimer acted as an unofficial hostess for Los Alamos and worked as a biologist in the laboratories there. She and Dr. Oppenheimer lived at Los Alamos during the period 1943 - 1945 while he served as the director of Los Alamos Scientific Laboratory.

---

**Subjects:** Leisure--New Mexico--Los Alamos--1940-1950.

**Named Persons:** Oppenheimer, Katherine P. (Katherine Puening), 1910?-1972.

## Defense Virtual Library

### Repository Retrieval



Click to view larger version

Photograph number PH0000128

Title : Kitty Oppenheimer, photographed during the war in the Oppenheimer's Los Alamos sitting room [graphic].

Created/Published : [between 1943 and 1945, copy negative 1980]  
Summary :

[NEW DOCUMENT SEARCH](#)

[NEW PHOTO SEARCH](#)

[NEW SOUND SEARCH](#)

[collections](#) | [search tips](#) | [project notes](#) | [related links](#) | [DTIC home](#)  
[DVL home](#) | [Comments/Questions?](#)



**Photograph number**  
PH0000128

**Title :** Kitty Oppenheimer, photographed during the war in the Oppenheimer's Los Alamos sitting room [graphic].

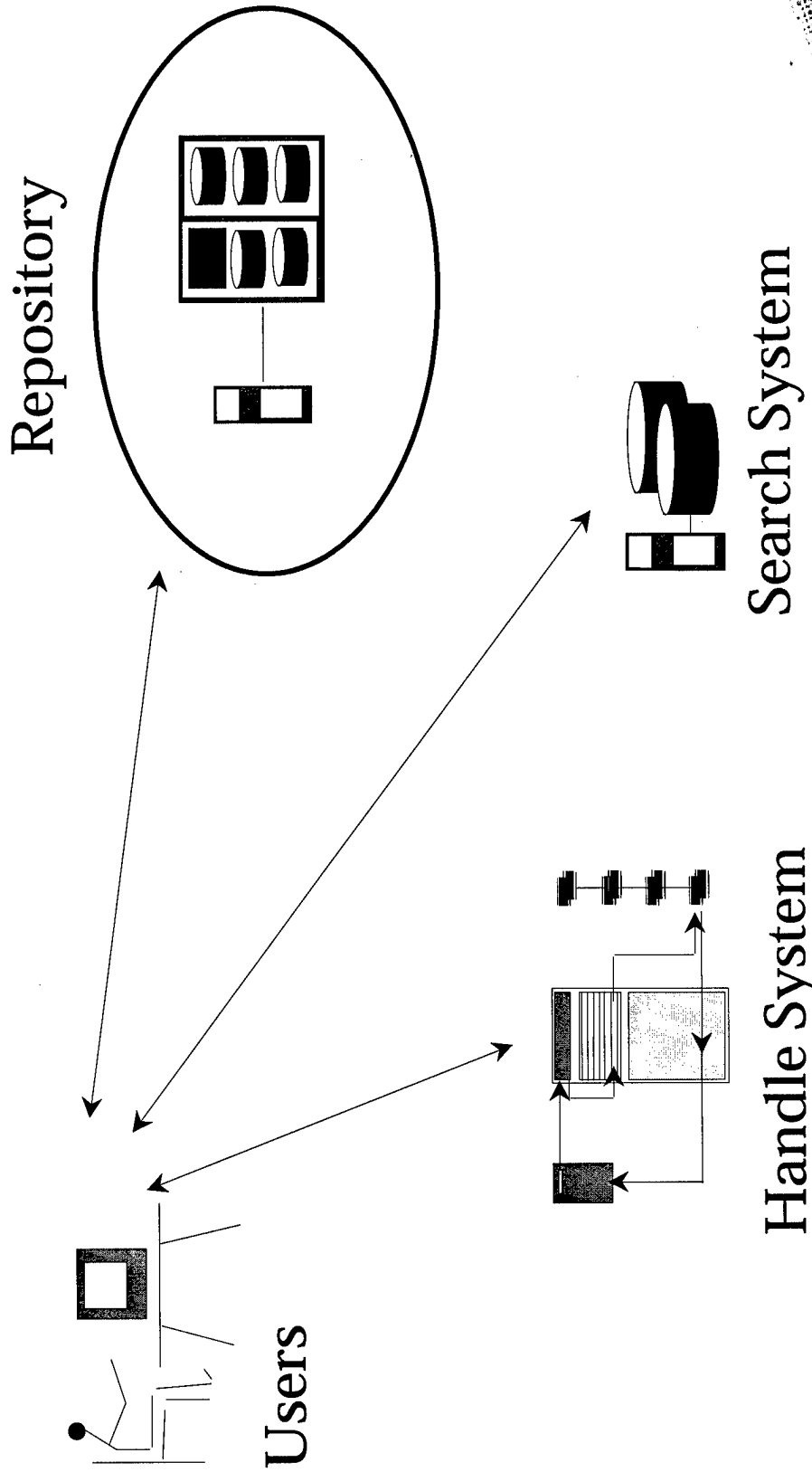
**Created/Published :** [between 1943 and 1945, copy negative 1980]

**Summary :**



# **Virtual Defense Library**

Defense Technical Information Center



Corporation  
Research  
ational  
atives

***Object Models***

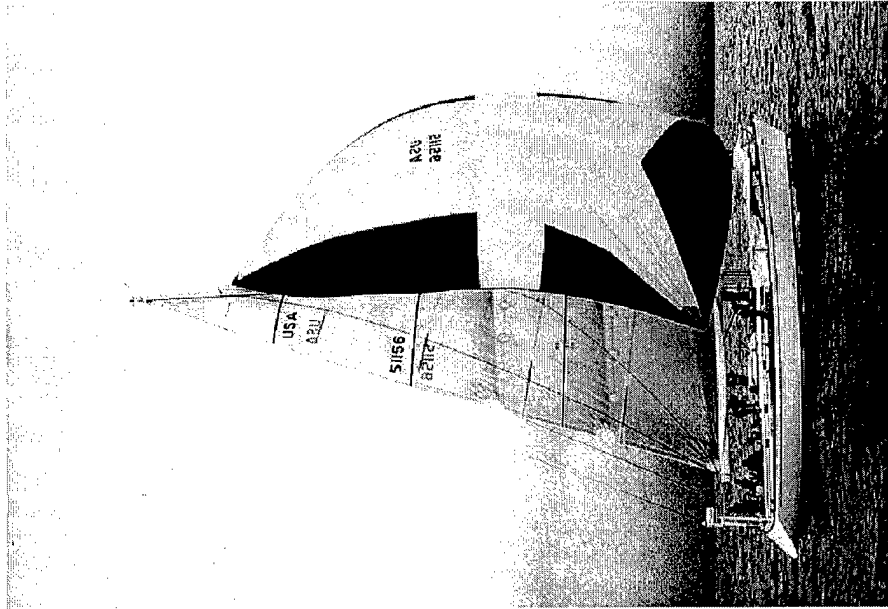
# Structural Type: web1 Web Object

**Data**

**Single file**

**Metadata**

**MIME type (e.g., jpeg)**

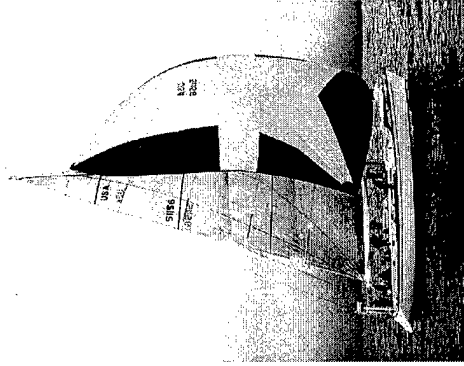


# Structural Type: web1 Web Object

Identifier

[www.dlib.org/boats/swan56](http://www.dlib.org/boats/swan56)

Data



Metadata

web1  
jpg

Corporation  
Research  
ational  
atives

# Structural type: pix1 Digitized Image

## Data

Several representations:

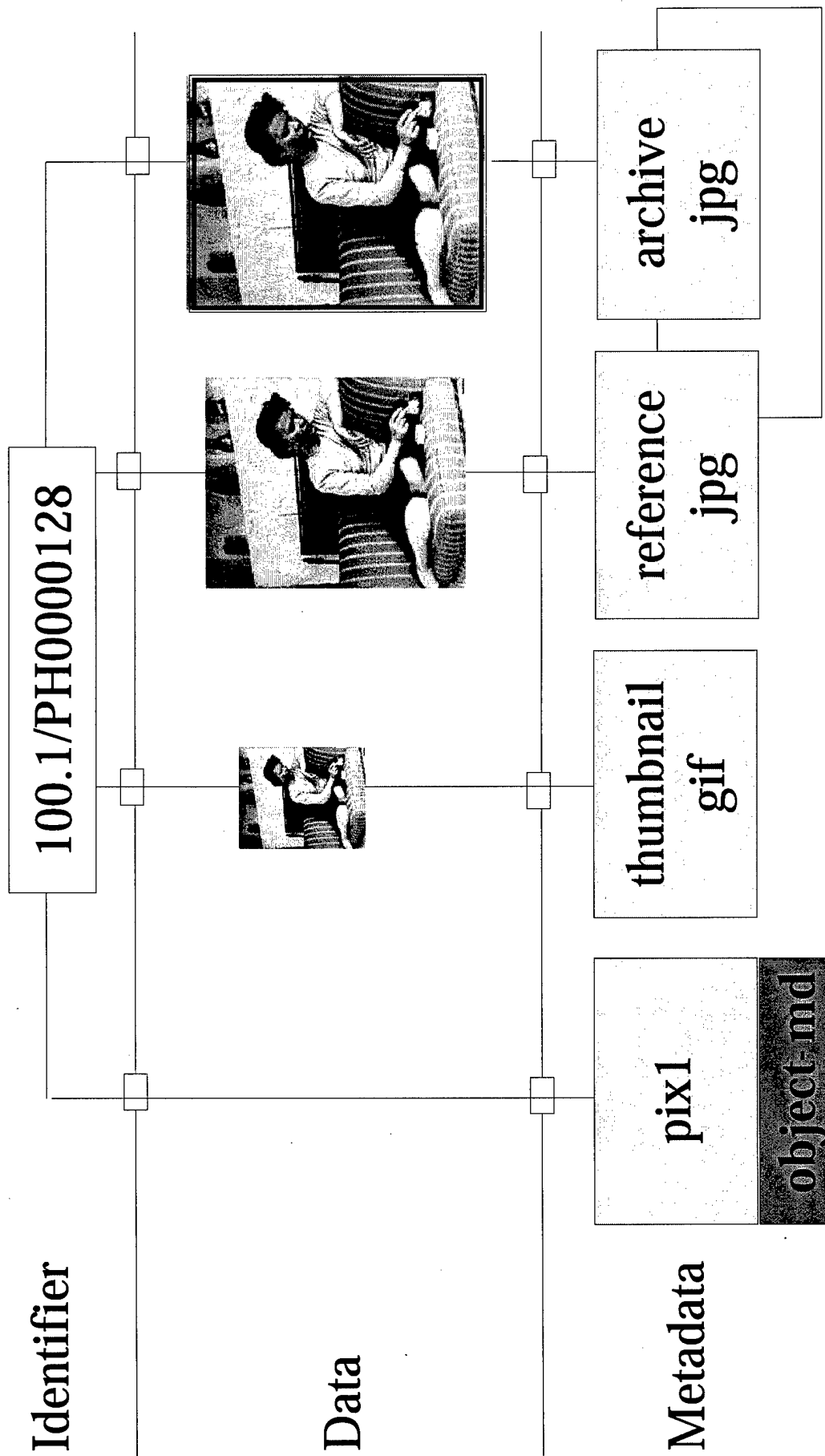
- thumbnail image*
- reference image*
- archival image*

## Metadata

Each representation may  
have its own metadata



# Structural type: pix1



Structural type: doc1  
Set of Digitized Page Images

**Data**

Each page:

*separate image*

*may have several representations*

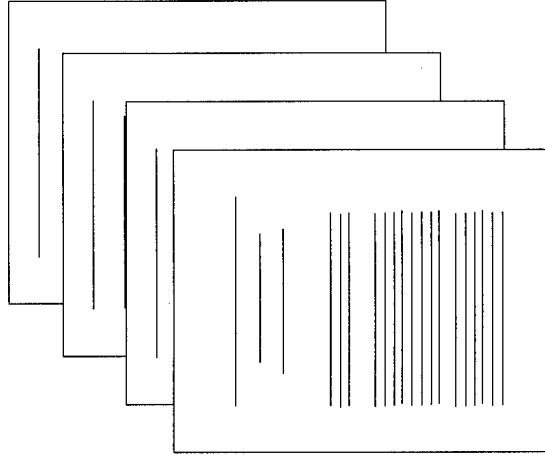
**Metadata**

Structure of work:

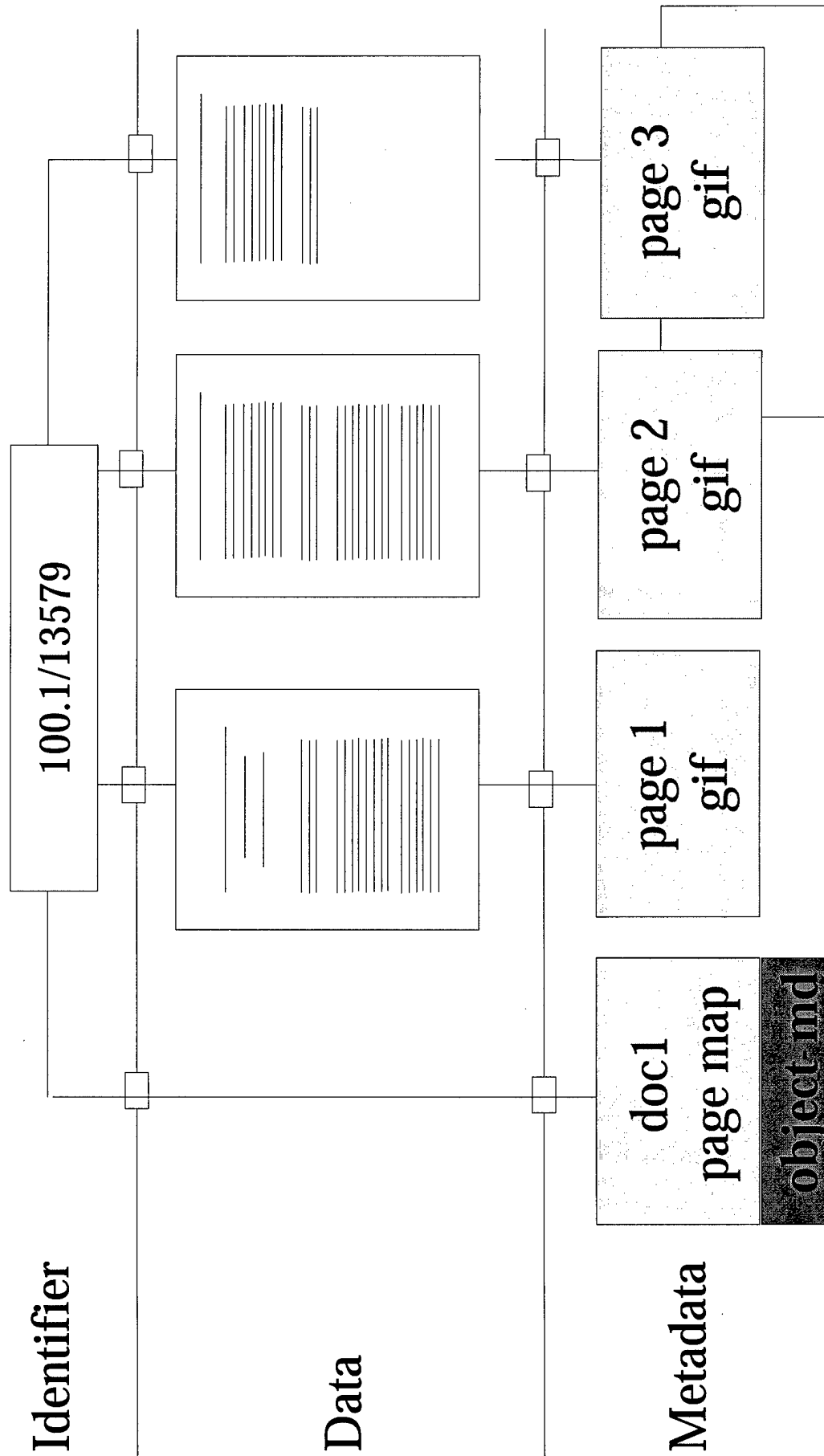
*page sequence*

*page numbers*

*special pages*



# Structural type: doc1





A page map relates the page images to the structure of the information, e.g.:

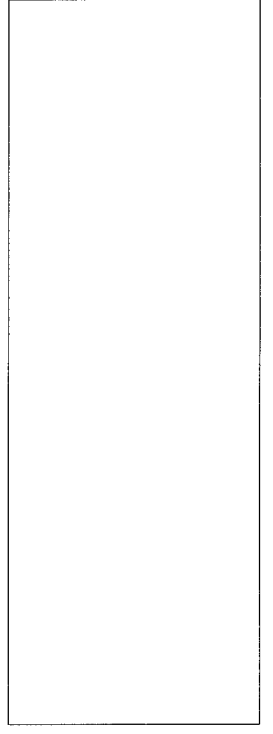
- List of pages
- Numbers printed on pages
- Identification of front matter (contents, title)
- Blocking of information on pages (columns, figures)
- Sequences of information across pages (continued on page 94)

<b>web1</b>	Web object
<b>pix1</b>	Digitized image
<b>doc1</b>	Set of digitized page images
<b>txt1</b>	Searchable text with page images
<b>aud1</b>	Audio recording
<b>vid1</b>	Video recording
<b>list1</b>	Set of digital objects
<b>list2</b>	Searchable set of digital objects

# Repository Access Protocol (RAP)

**RAP: A simple protocol with two main groups of commands:**

- Deposit digital object
- Verify digital object
- Delete digital object
- Edit digital object
- Access digital object
- Access metadata



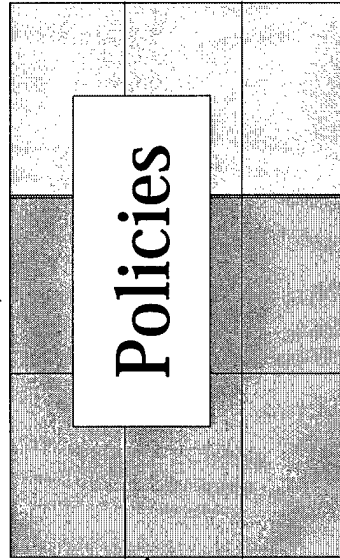
# Access Management

Digital material

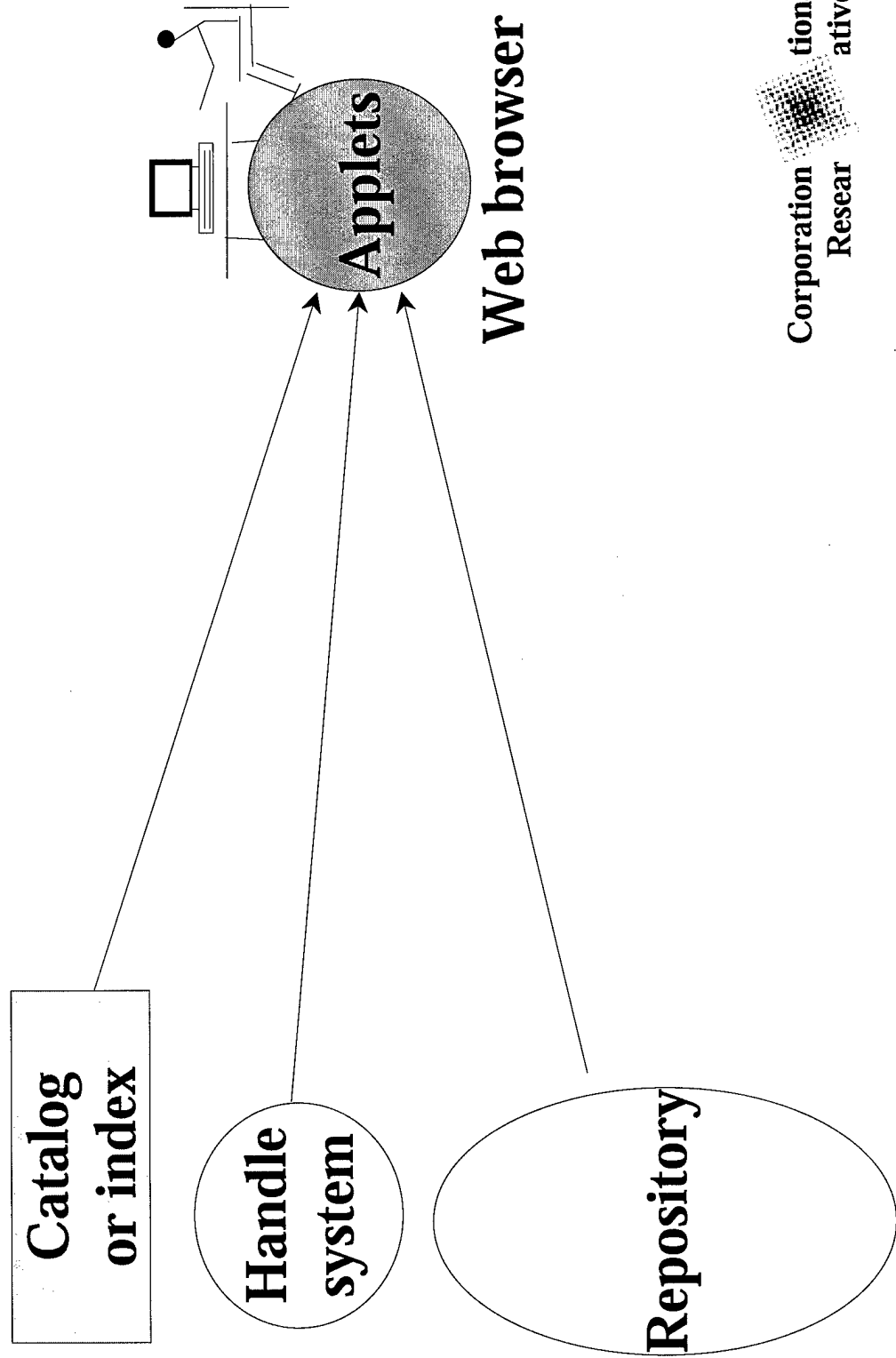
Attributes

User

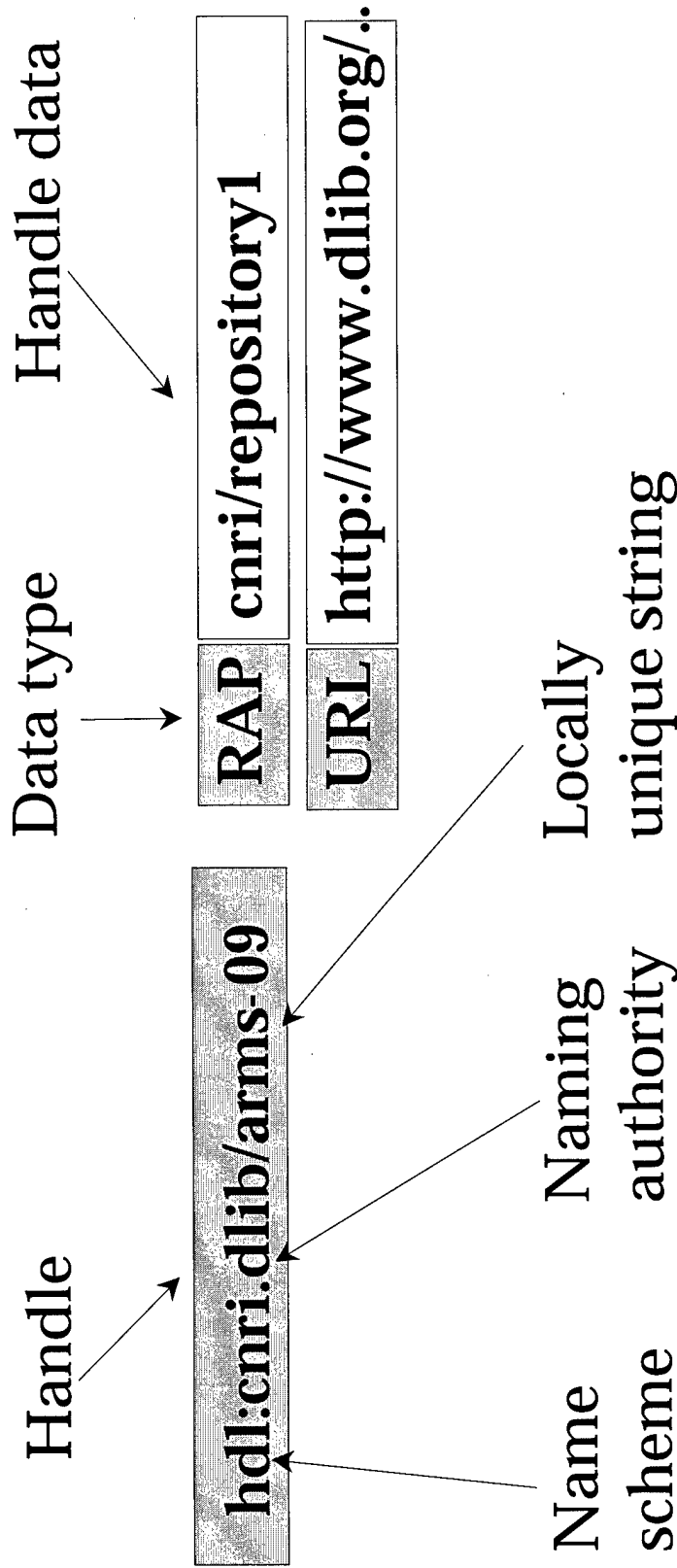
Roles



Operations



# The Handle System



# **Virtual Defense Library**

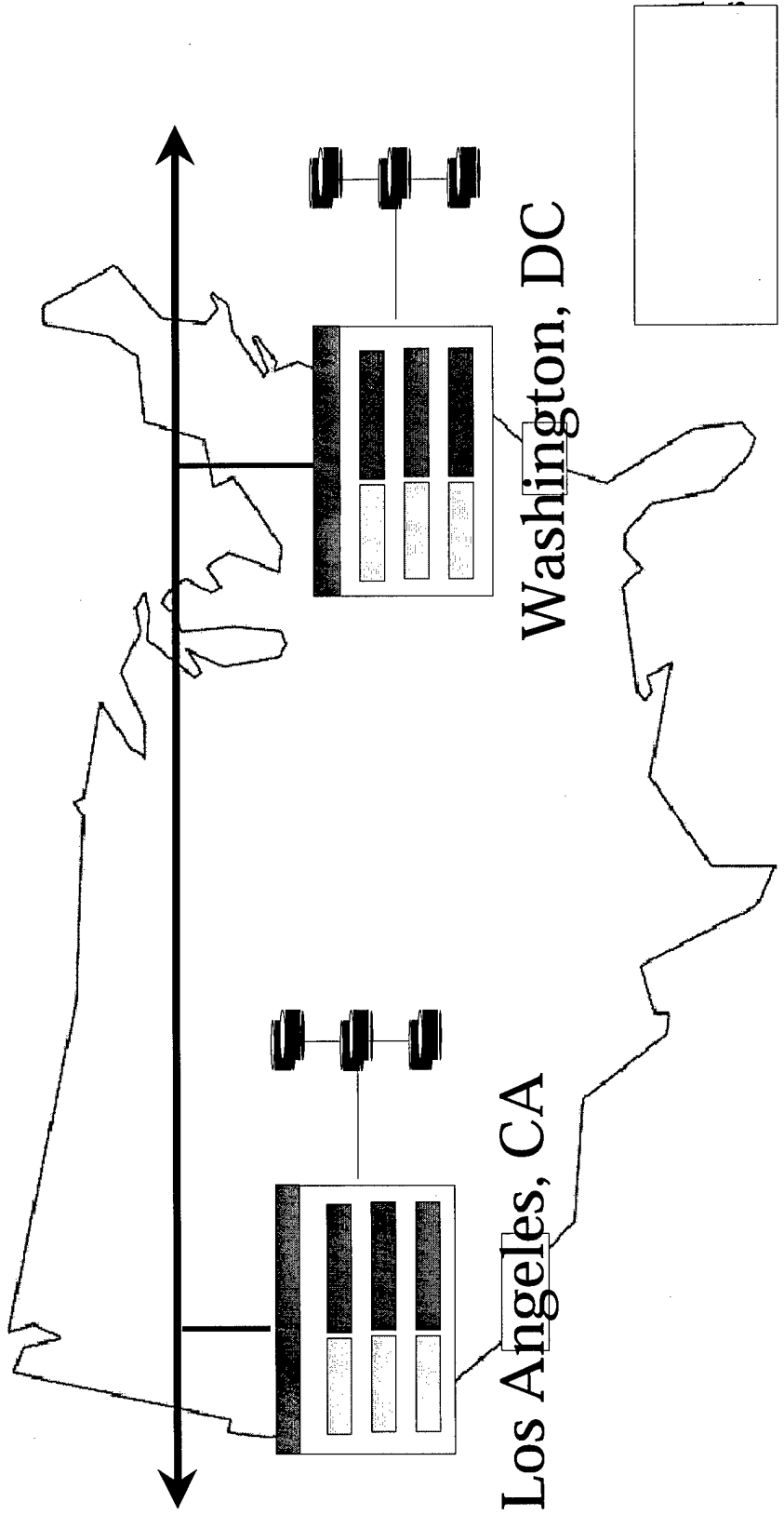
Defense Technical Information Center

The Handle System Appears  
as a Single, Transparent, High Performance, Worldwide  
Service on the Internet

- Consists of many directories.
- Each directory:
  - consists of many computers.
  - can store handles from many naming authorities.
  - can replicate data on many computers for reliability and performance.
- The interfaces are open and specified.

# Handle System

All Data is Replicated at Several Sites  
for Performance and Reliability





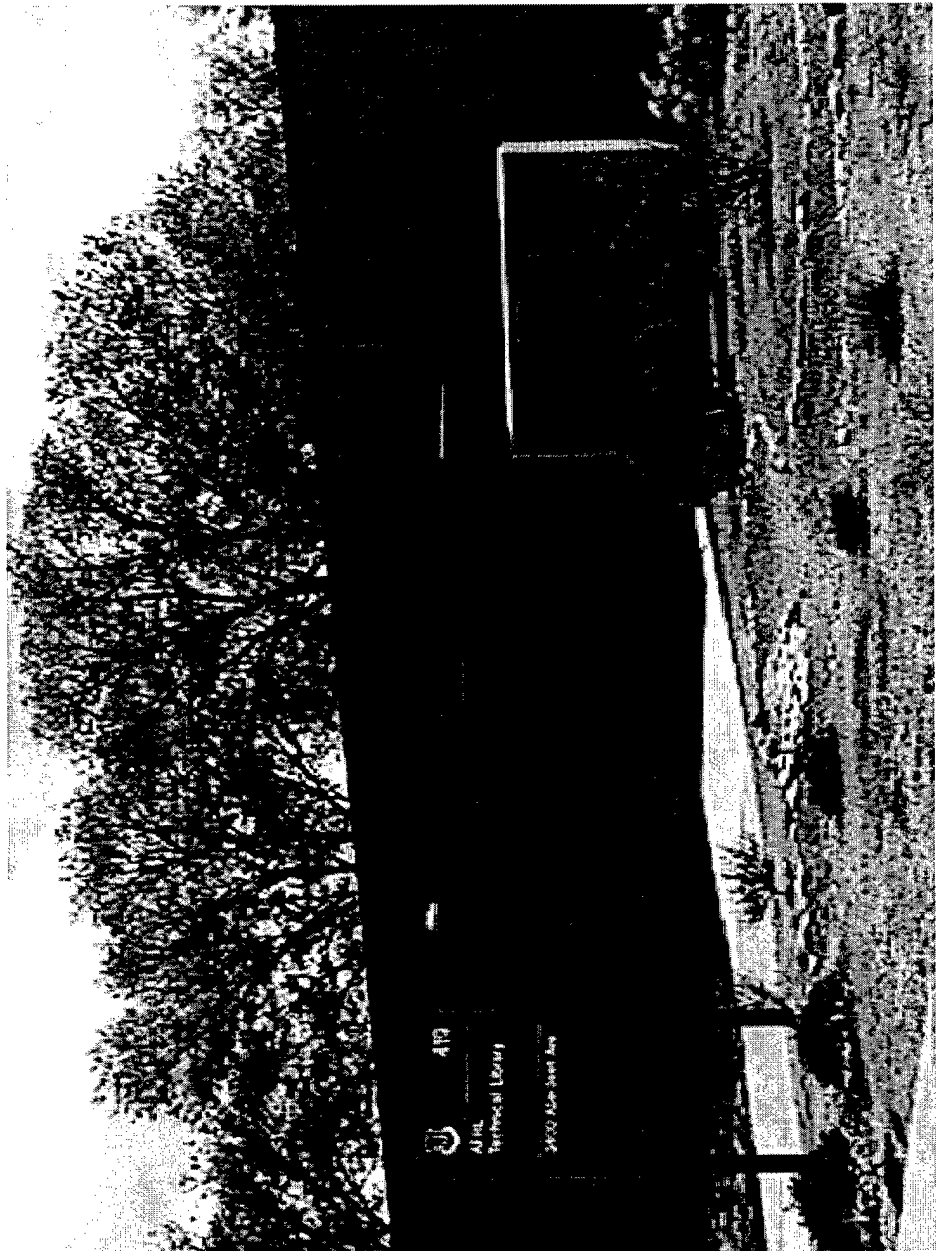
# AIR FORCE RESEARCH LAB



# United States Air Force

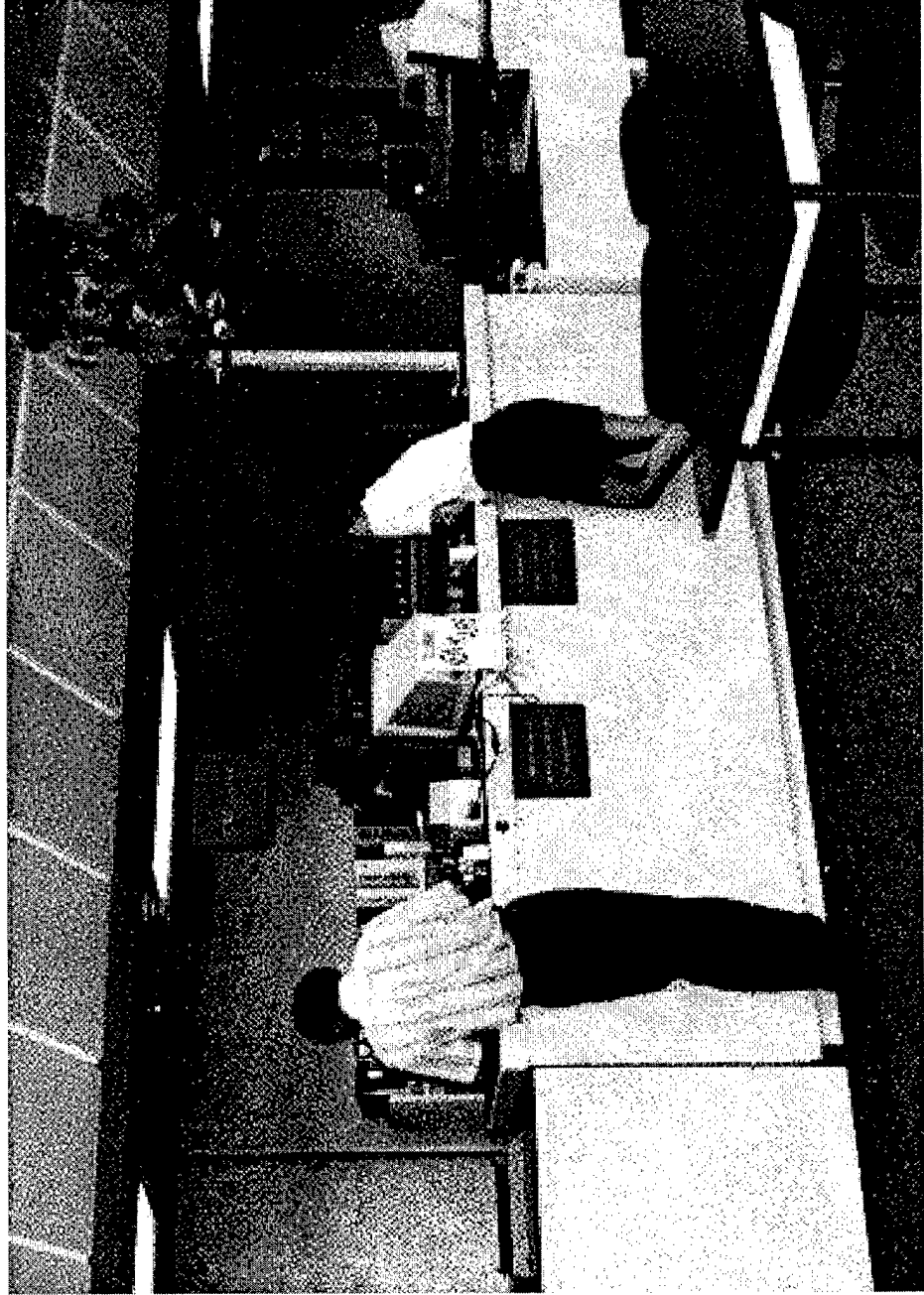


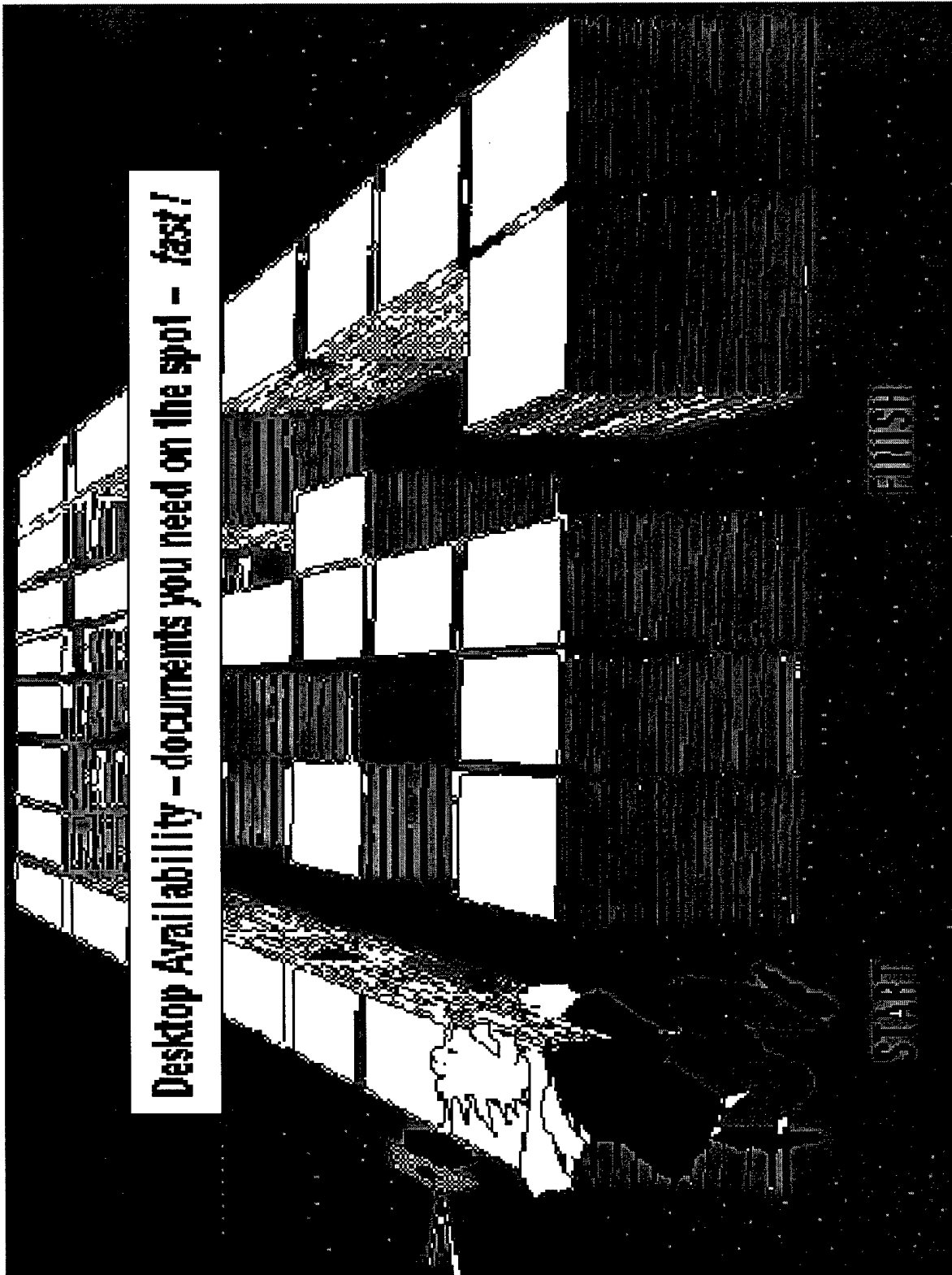
# Phillips Research Site Technical Library



**NOW**

Much more information is available to  
many more people.....

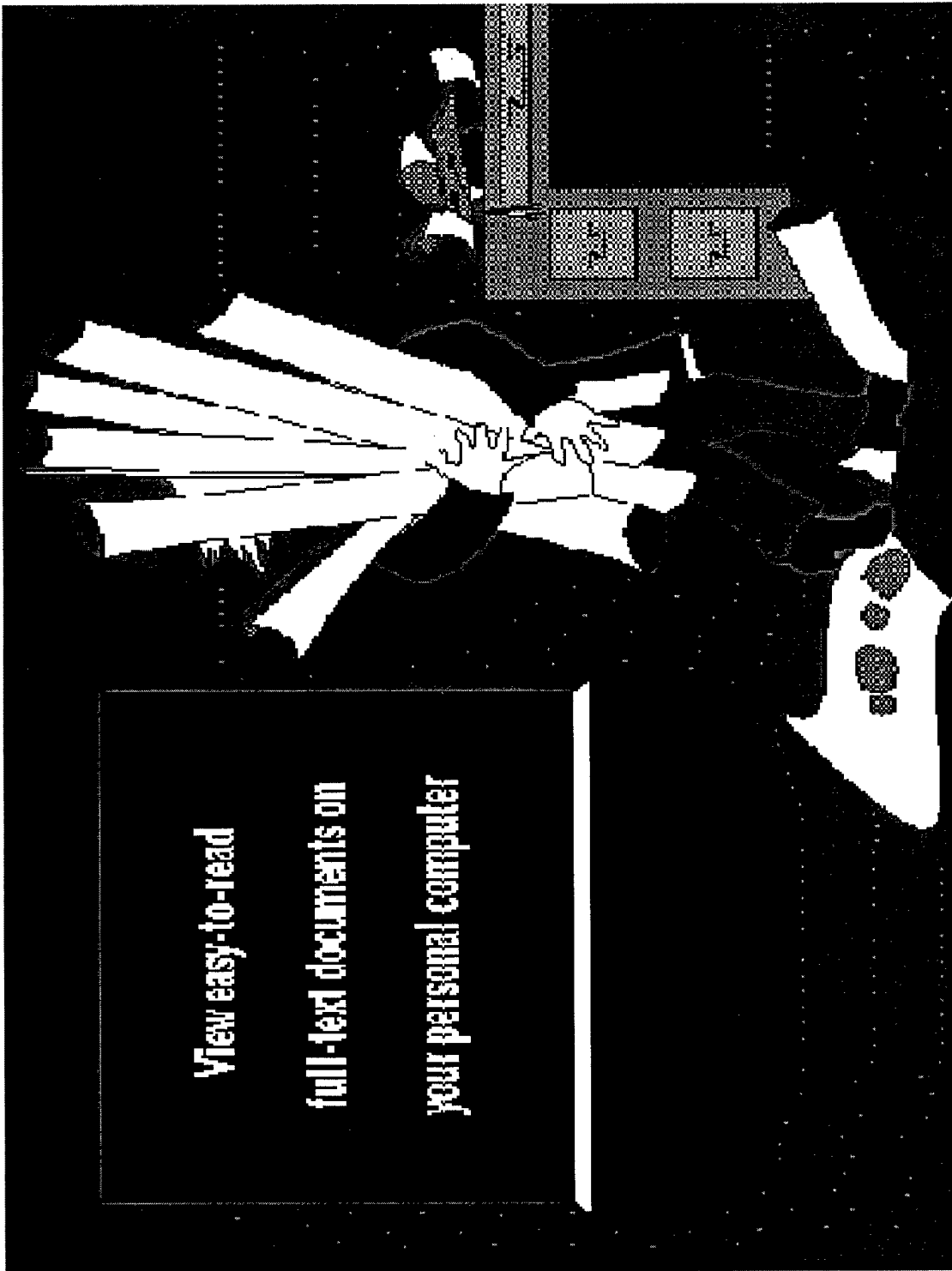




**Desktop Availability - documents you need on the spot - fast!**

FINISH

START

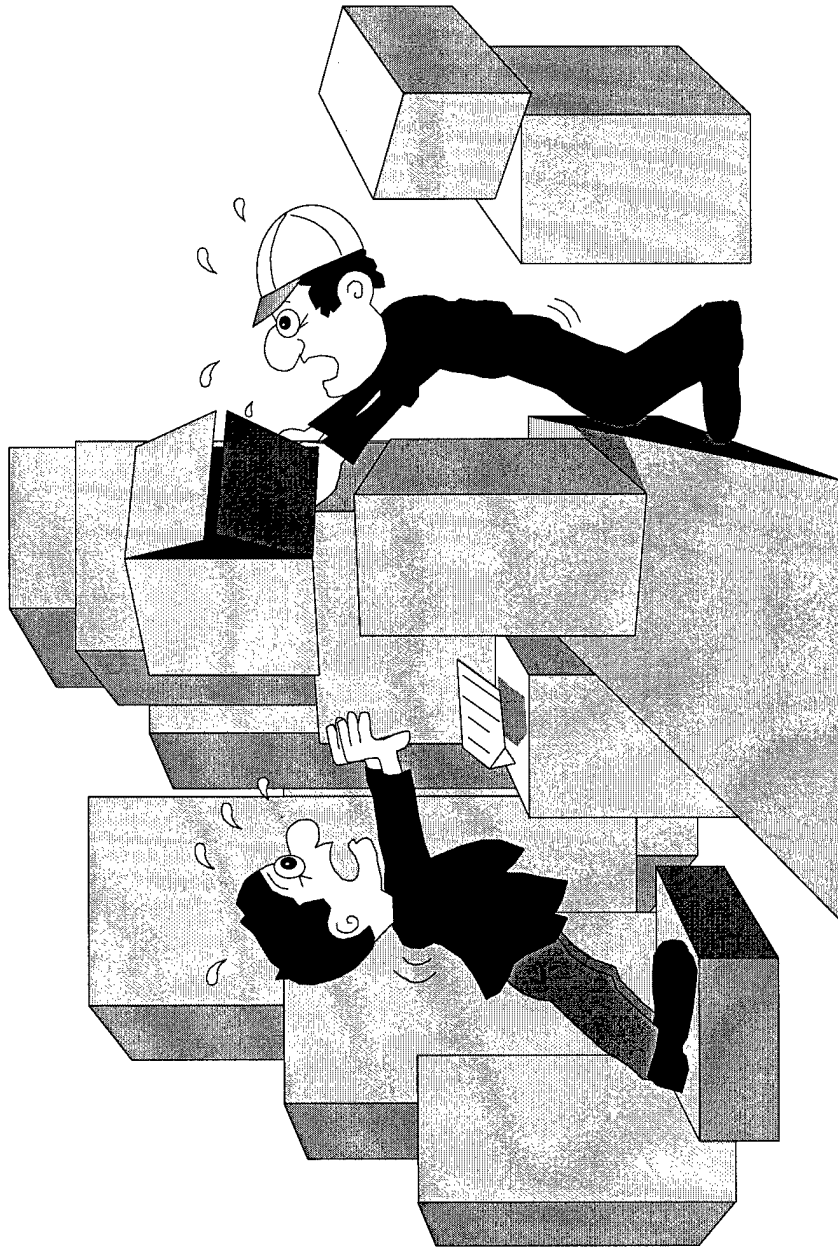


**View easy-to-read  
full-text documents on  
your personal computer**

## **New On-line System offers users;**

- **PC access in their office.**
- **24 hour document access.**
- **Keyword searchable database with searches on labels or entire file contents.**
- **Cut & paste of text files to researcher's research notes into a word processing program (*editing required*).**
- **Print capabilities to local printers.**

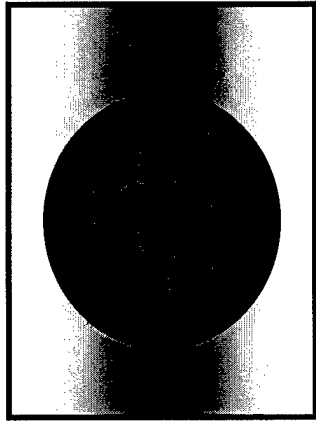
**How does the researcher get to this information?**





# INTERNET

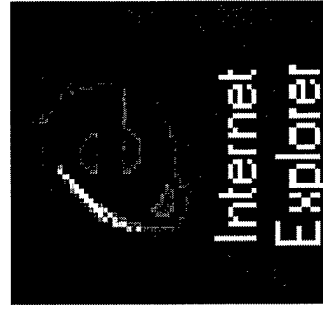
Access achieved through.....



NETSCAPE

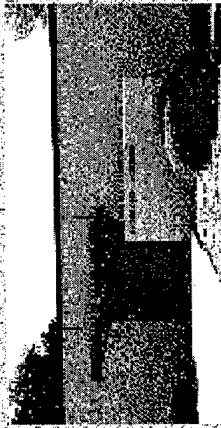
OR

MICROSOFT INTERNET EXPLORER



# VIRTUAL LIBRARY ACCESS

## AFRL PHILLIPS SITE TECHNICAL LIBRARY



SciSearch	Electronic Documents (EFS)	Online Catalog (STILAS)	Electronic Journals	Journal Holdings
Forms	Slideshow	General Information	WWW Links	First Search

**NEW!**

**RetrievalWare** New Service Available: RetrievalWare will soon replace EFS as a new way to Retrieve Technical Reports from the Library RetrievalWare Access Link!

13 43:39PM 12-Nov-1993

- SciSearch - Science Citation Index available from Los Alamos National Laboratory
- Electronic Documents (EFS) - Online, Full Text Laboratory Technical Documents (internet accessible full text search and image retrieval capabilities)
- Online Catalog (STILAS) - Online Public Access Technical Library Holdings Catalog
- Electronic Journals - Links to selected internet electronic journals
- Forms - Literature Search and Material Request Forms
- Slideshow - Information (an online presentation describing the Library's Optical Imaging Project)
- General Information - General Information (an electronic version of the library's brochure, describing our services and providing phone numbers)
- WWW Links - Short cuts to information resources on the World Wide Web (WWW)

15:21:04PM 12-Nov-1998

# The Virtual Tour

★ <a href="#">SciSearch</a>	<a href="#">Electronic Documents (EFS)</a>	<a href="#">Online Catalog (STILLAS)</a>	<a href="#">Electronic Journals</a>	<a href="#">Journal Holdings</a>
★ <a href="#">Forms</a>	★ <a href="#">Slideshow</a>	★ <a href="#">General Information</a>	<a href="#">WWW Links</a>	<a href="#">First Search</a>

08:43:35AM 13-NOV-1998

## Forms

These documents are in pdf format.

- [Technical Library Material Request Form](#) (posted 1/4/1997)
- [Request for Computer-Aided Literature Search](#) (posted 1/4/1996)

View of 1/4/1996  
08:48:41AM 13-NOV-1998

## Slideshow

## General Info

- [Location of the Library](#)
- [Collections](#)
  - [Books](#)
  - [New Books](#)
  - [Reports](#)
  - [Journals](#)
  - [Audio-Visual Materials](#)
- [Services](#)
  - [Reference Assistance](#)
  - [End-User Searching](#)
  - [Online Searching](#)
  - [Current Awareness](#)
  - [Interlibrary Loan](#)
  - [Office Collections](#)
  - [Loan Procedures](#)
  - [Copy Services](#)
- [Library Committee](#)
- [General Information](#)
- [Important Phone Numbers](#)

08:47:16AM 13-NOV-1998

# The Virtual Tour

08:43:35AM 13-Nov-1998

[SciSearch](#)
[Electronic Documents \(EFS\)](#)
[Online Catalog \(STILLAS\)](#)
[Electronic Journals](#)
[Journal Holdings](#)

[Forms](#)
[Slideshow](#)
[General Information](#)
[WWW Links](#)
[FirstSearch](#)

[\[Last Area \(None\)\]](#)
[\[Last Database \(None\)\]](#)

## JOURNAL HOLDINGS

### ALPHABETICAL LISTING

ABCDEFGHIJKLMNOPQRSTUVWXYZ

[Journal Holdings in PDF Format](#)

175

21st century science & technology.

Holdings: KAFB OWNS: HC: V6 #2- (1993-)

Holdings: ROUTES OUTSIDE LIBRARY FIRST.  
12:08:12PM 13-Nov-1998

## First Search

Database Areas  
 Arts & Humanities  
 Business & Economics  
 Conferences & Proceedings  
 Consumer Affairs & People  
 Education  
 Engineering & Technology  
 General & Reference  
 Life Sciences  
 Medicine & Health Sciences  
 News & Current Events  
 Public Affairs & Law  
 Social Sciences  
 All Databases

## Welcome to FirstSearch !

- Click a Database Area in the left panel.
- A list of databases will be displayed.
- Click the database you want to search.
- Or search now in: [WorldCat](#) [Article 1st](#) [NetFirst](#)

### [FirstSearch News](#)

FirstSearch News

Welcome to OCLC's FirstSearch service on the World Wide Web! The WWW enhances FirstSearch capabilities with improved navigation, typeset quality print and imaging capability. The WWW makes FirstSearch easier than ever to use.

17:17:42PM 12-Nov-1998

NM Alliance Libraries  
 Defense Dept.  
 NASA  
 Other Federal Resources  
 Books & Journal Publishers/Vendors  
 Computer Info  
 Professional & Technical Assoc.  
 Other Assorted Interesting Things

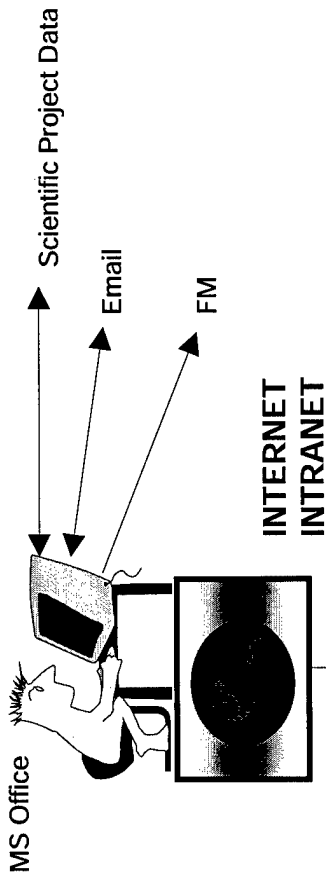
## WWW Links

# The Virtual Tour

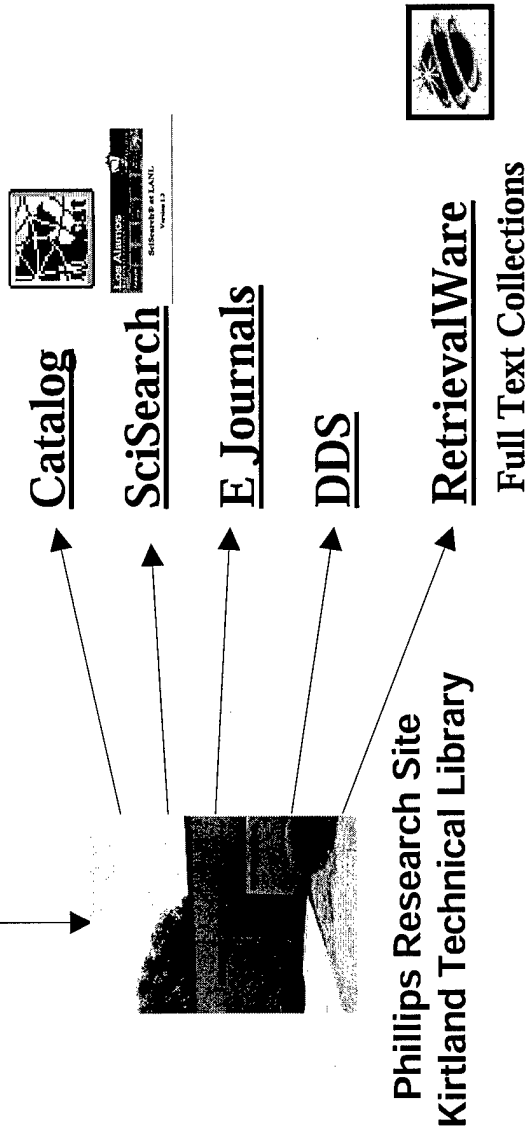
## EVOLVING DELIVERY SYSTEMS

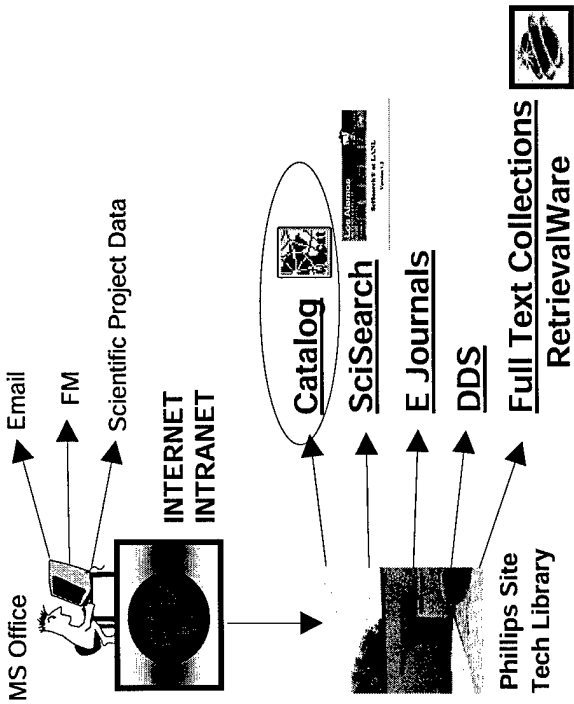
★	SciSearch	★	Electronic Documents (EFS)	★	Online Catalog (STILAS)	★	Electronic Journals	Journal Holdings
	Forms		Slideshow		General Information		WWW Links	FirstSearch

08:43:35AM 13-NOV-1998



# Configuration





# Catalog



Bibliographic records of all library holdings.  
 The electronic version of the "card catalog".  
 Utilized by researchers to identify documents  
 available at a particular location.

## Goal

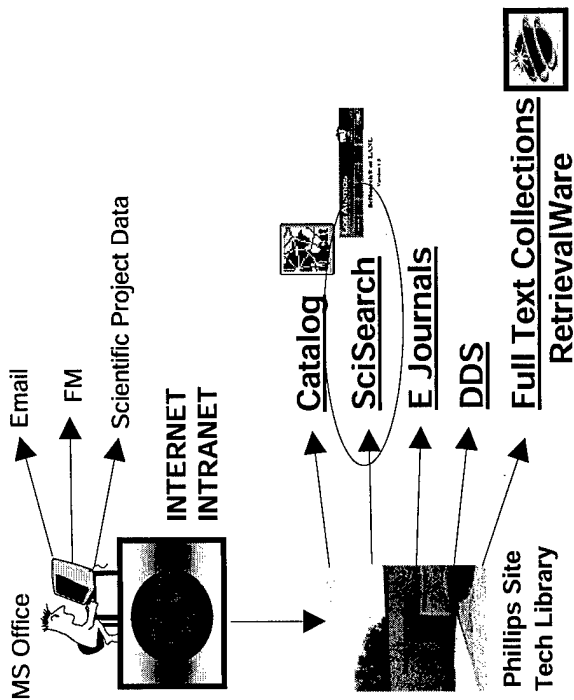
Make all Lab Catalogs Searchable Lab Wide.

## Issues

Multiple types/versions of automation systems.

All Z39.50 requirement currently.

RDBMS will allow for simultaneous searches by RW of the multiple databases.



## SciSearch

Science Citation Index on-line through Los Alamos National Laboratory. Critical scientific reference source for researchers. Los Alamos developed an elaborately enhanced front end to access this ISI database. Available only through the Library Service Alliance of New Mexico.

### Kirtland Site - In Progress/Potential Access

Implementation of Alerts/Profiles with email delivery

Citation hot links to electronic full text journal holdings where full text is available within the alliance or a record of the holding AFRL library to facilitate hardcopy acquisition.

Considerable savings by eliminating paper subscription and providing online researcher access



**GOAL**

*Meet the needs of the lab researcher by conducting literature searches.*

**Literature Searches**

**Dialog Fy96/97 Cost Comparison since SciSearch**

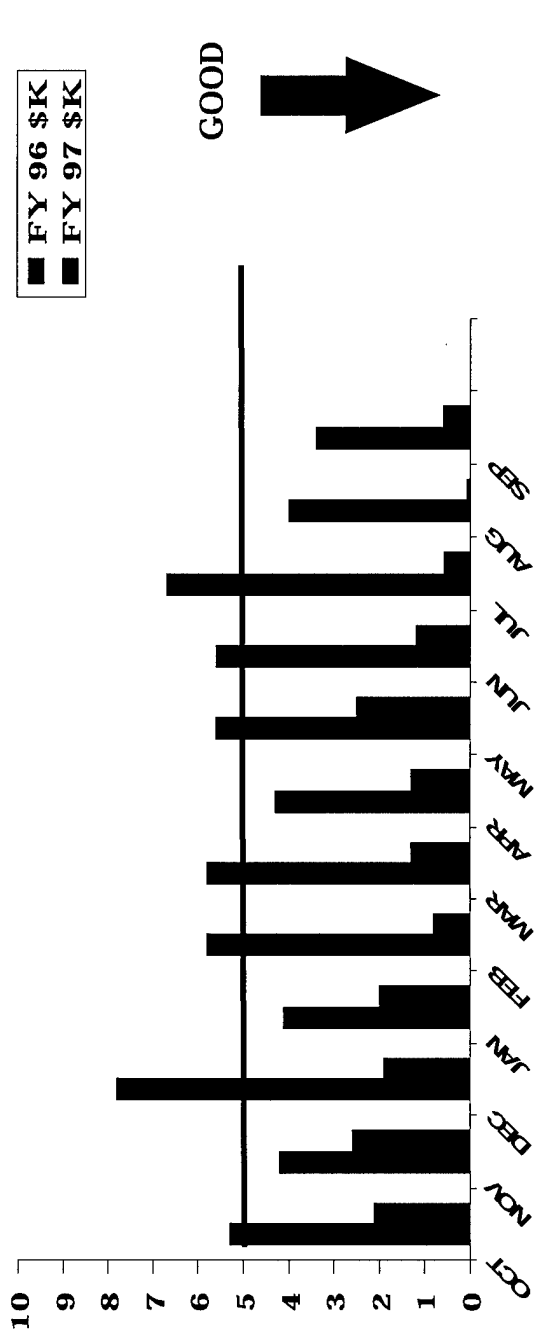
**PL/TL Objective:**

To realize a cost reduction for Dialog searches due to the implementation of SciSearch..

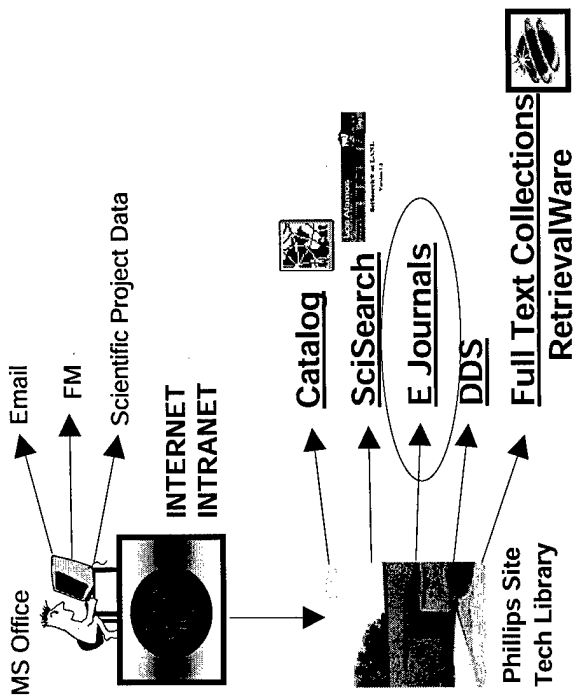
**What do we do to support this objective:**

To provide access to SciSearch at the user's desktop.

**What level of performance are we trying to achieve:** Allow researchers desktop access and reduce labor costs of researchers and reference librarians. (average \$5230/Mo. FY 96).



FY 96 \$K	5.3	4.2	7.8	4.1	4.1	5.8	5.8	5.8	4.3	4.3	5.6	6.7	4	3.4
FY 97 \$K	2.1	2.6	1.9	2	2	0.8	0.8	1	1.3	1.3	2.5	0.57	0.07	0.6

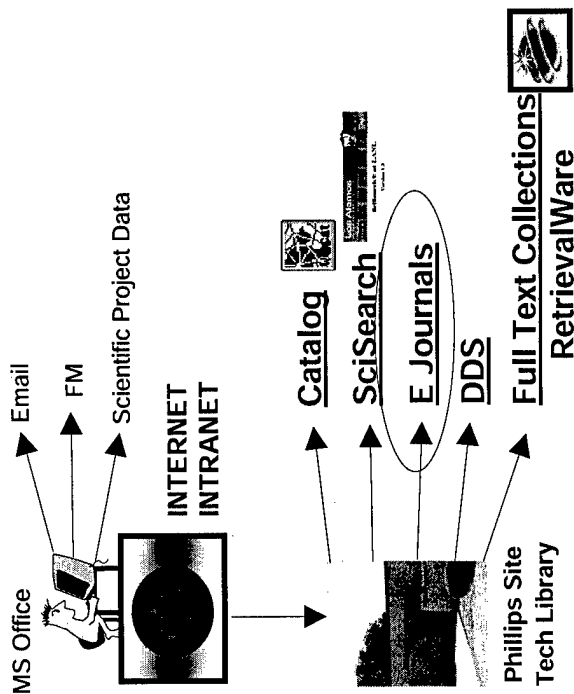


## E Journals

Full text online journals delivered to the researcher's desktop via the WEB. Allows researchers to remain up-to-date in their scientific discipline.

## Issues

- New technology and not all journals available full text.
- Many available journals are only partial content.
- Electronic access available only with paper purchase.
- Journals requiring per seat licensing not cost effective.
- Solitary access point could reduce paper subscription prices lab wide for duplicate subscriptions.
- Table of Contents services could be provided.

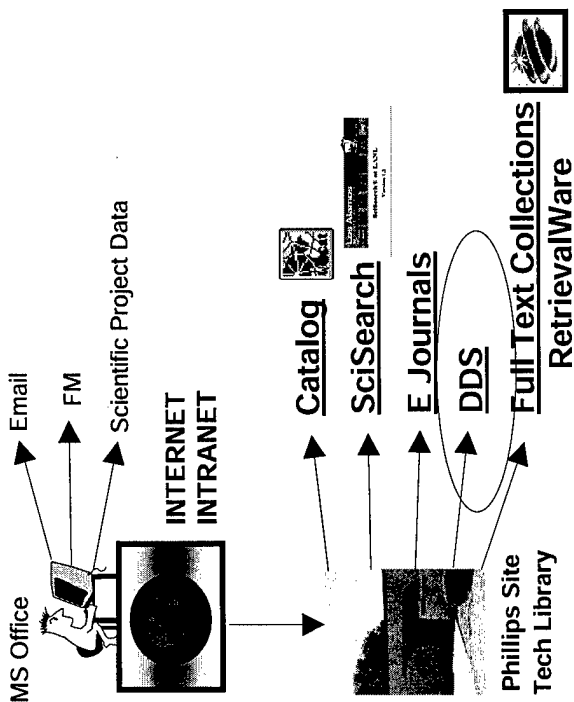


## E Journals - cont.

Full text online journals delivered to the user's desktop via the WEB. Allows researcher to remain up-to-date in their scientific discipline.

### Kirtland Site - In Progress/Potential Access

- IEEE (Institute of Electrical & Electronics Engineers)
- ELSEVIER - AFRL Implementation - over \$200,000 savings
- IOP (Institute Of Physics) - Currently online at Kirtland
- AIP (American Institute of Physics) - Kirtland Access request being processed by AIP
- IDEAL (Academic Press) - Consortium - availability through New Mexico Library Alliance
- EBSCO (Command Wide Purchase) - Access first of Feb. 98 for very limited number of academic full text documents and numerous abstracts

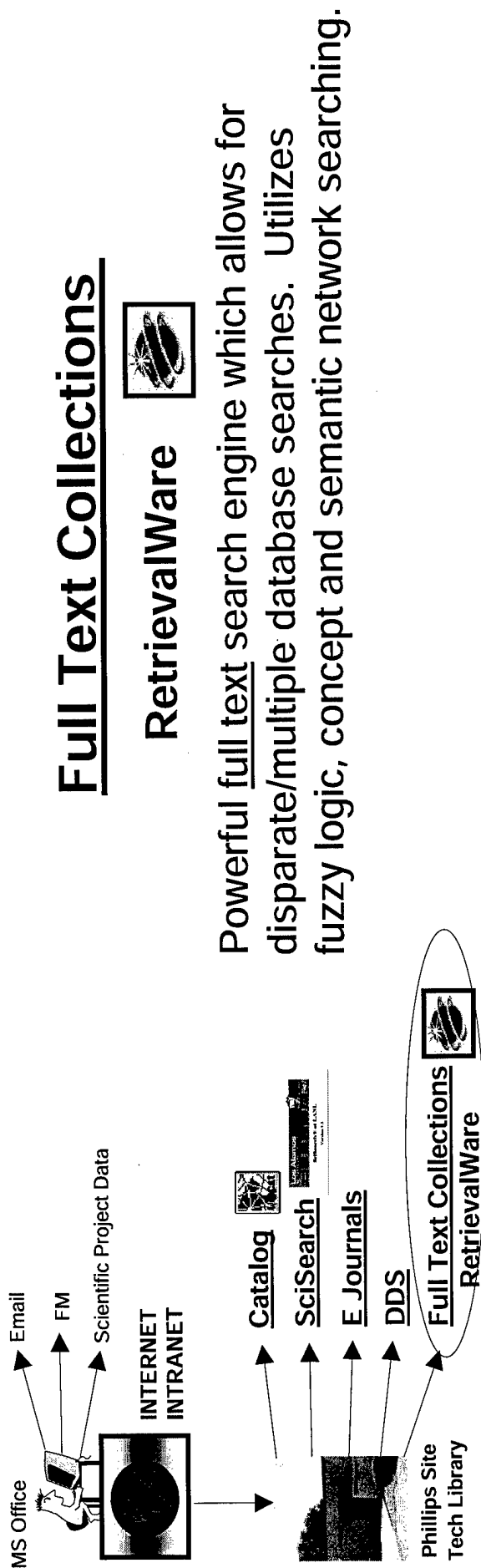


## DDS

Document Delivery Service. This provides researchers with delivery of desired reference materials when they are unavailable at their current location.

### Kirtland Site - In Progress/Potential Access

**ARIEL** - Software implementation would provide for Web user requests of journal articles and electronic delivery to the researcher's desktop via email. Implementation would net a savings of over \$3/article.



## Full Text Collections



### RetrievalWare

Powerful full text search engine which allows for disparate/multiple database searches. Utilizes fuzzy logic, concept and semantic network searching.

## Kirtland Site Current Access

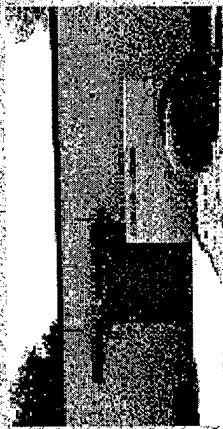
**AFRL Reports**

**NASA Reports**

**SF 135's**

# VIRTUAL LIBRARY ACCESS

## AFRL PHILLIPS SITE TECHNICAL LIBRARY



SciSearch	Electronic Documents (EFS)	Online Catalog (STILAS)	Electronic Journals	Journal Holdings
Forms	Slideshow	General Information	WWW Links	First Search

↑  
EFS

NEW!

New Service Available: RetrievalWare will soon replace EFS as a new way to Retrieve Technical Reports from the Library RetrievalWare Access Link!

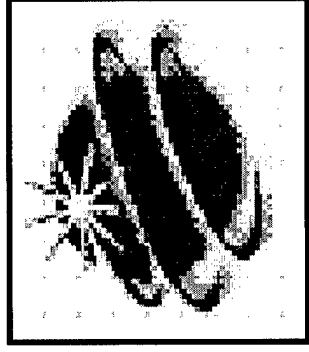
13 43:39PM 12-Nov-1998

RetrievalWare will replace EFS

- SciSearch - Science Citation Index available from Los Alamos National Laboratory ← SciSearch
- Electronic Documents (EFS) - Online, Full Text Laboratory Technical Documents (internet accessible full text search and image retrieval capabilities)
- Online Catalog (STILAS) - Online Public Access Technical Library Holdings Catalog ← STILAS
- Electronic Journals - Links to selected internet electronic journals ← E Journals
- Forms - Literature Search and Material Request Forms
- Slideshow - Information (an online presentation describing the Library's Optical Imaging Project)
- General Information - General Information (an electronic version of the library's brochure, describing our services and providing phone numbers)
- WWW Links - Short cuts to information resources on the World Wide Web (WWW)

15:21:04PM 12-Nov-1998

# THE SEARCH ENGINE



EXCALIBUR'S

RetrievalWare

FULL TEXT SEARCH  
&  
IMAGE RETRIEVAL  
INTERNET Access



Databases

Query



Libraries

AFRL Technical Reports

Inbox

AFCRL

AFETAC

AFRL

CRL

DTIC

EMP

PL

WL

Wastebasket

13:46:21PM 12-NOV-1998

SF135 (Records Transmittal & Receipts)  
MISC

AFCRL (Cambridge Research Lab)  
AFCRL - 66 thru 72, misc, PSRP  
TR - 74, 75

AFETAC (AF Environmental Technical  
Applications Center)  
TN - 74, 80, 81

AFRL (Air Force Research Lab)  
DE-PS-TR - 98 thru  
VS-HA-TR - 98 thru  
VS-PS-TR - 98 thru

CRL (Cambridge Research Lab)  
BIB - by date  
CCSIR - FTR  
IRW - F, QTR, SA  
MISC - 64 thru 76 & misc  
ROR - 71, 73  
TR - 66, 67, 68, 71, 73, 74, 75, 76 &  
PROFED

DTIC - Defense Technical Information Center  
EMP (Electromagnetic Pulse - Baum)  
SSN - EMP-1 Sensor & Simulation  
1 - 390 Publicly Released

PL (Phillips Laboratory)  
CP - 91, 93 & 94  
LQS - 94 & 95  
MISC - 90 thru 95 & misc.  
TN - 91 thru 94  
TP (GP) - 93 thru 94  
TR - 91 thru 96

WL (Weapons Lab)  
MISC  
TN - 65 thru 90, & DE  
TP - 89  
TR - 64 thru 92



**SYSTEM ADVANTAGES**

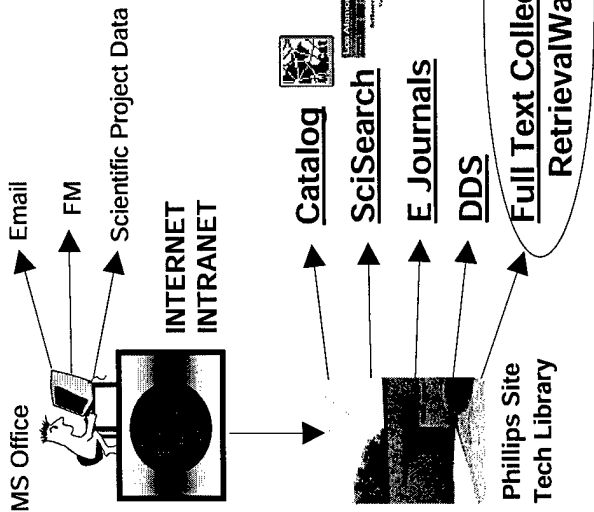
**SEARCH CAPABILITIES**

**ADAPTIVE PATTERN RECOGNITION**

**“FUZZY” SEARCHES**

**CONCEPT SEARCHING**

**BOOLEAN SEARCHING**



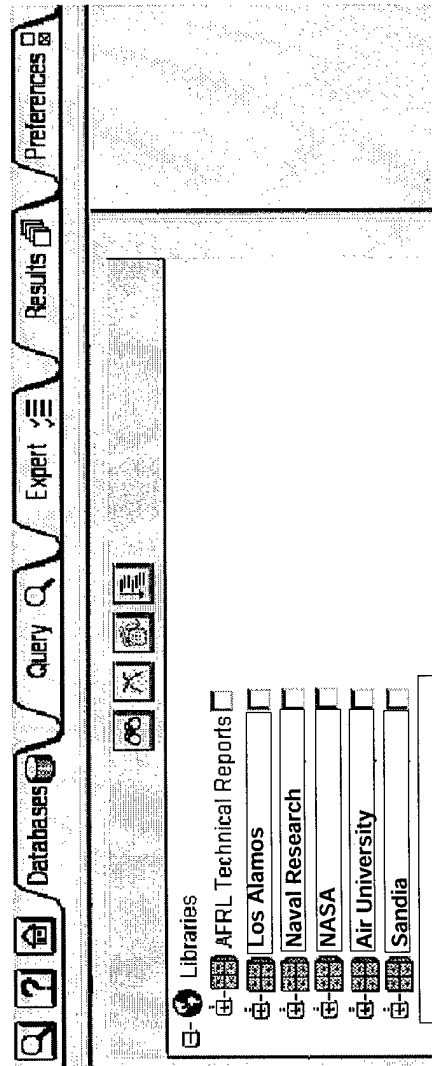
## Full Text Collections - cont.



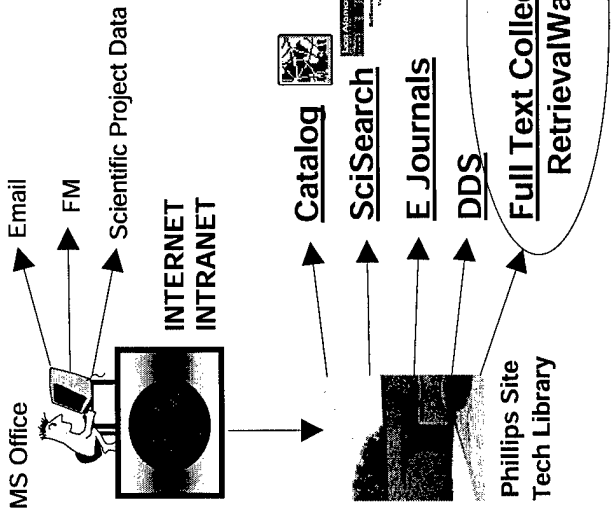
### RetrievalWare

Powerful full text search engine which allows for disparate/multiple database searches. Utilizes fuzzy logic, concept and semantic network searching.

## Current Collaboration for Full Text Collection Exchange



NRL - Navy Research Lab  
 Los Alamos National Library  
 NASA - Additional  
 Air University  
 Other Alliance Libraries

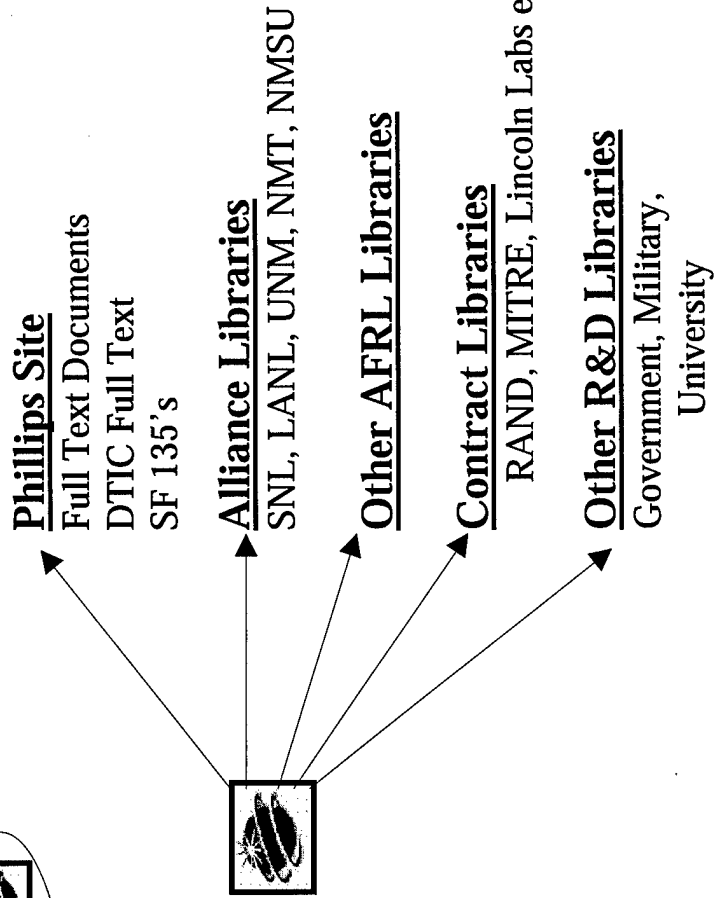


# Full Text Collections - cont.



## RetrievalWare

Powerful full text search engine which allows for disparate/multiple database searches. Utilizes fuzzy logic, concept and semantic network searching.



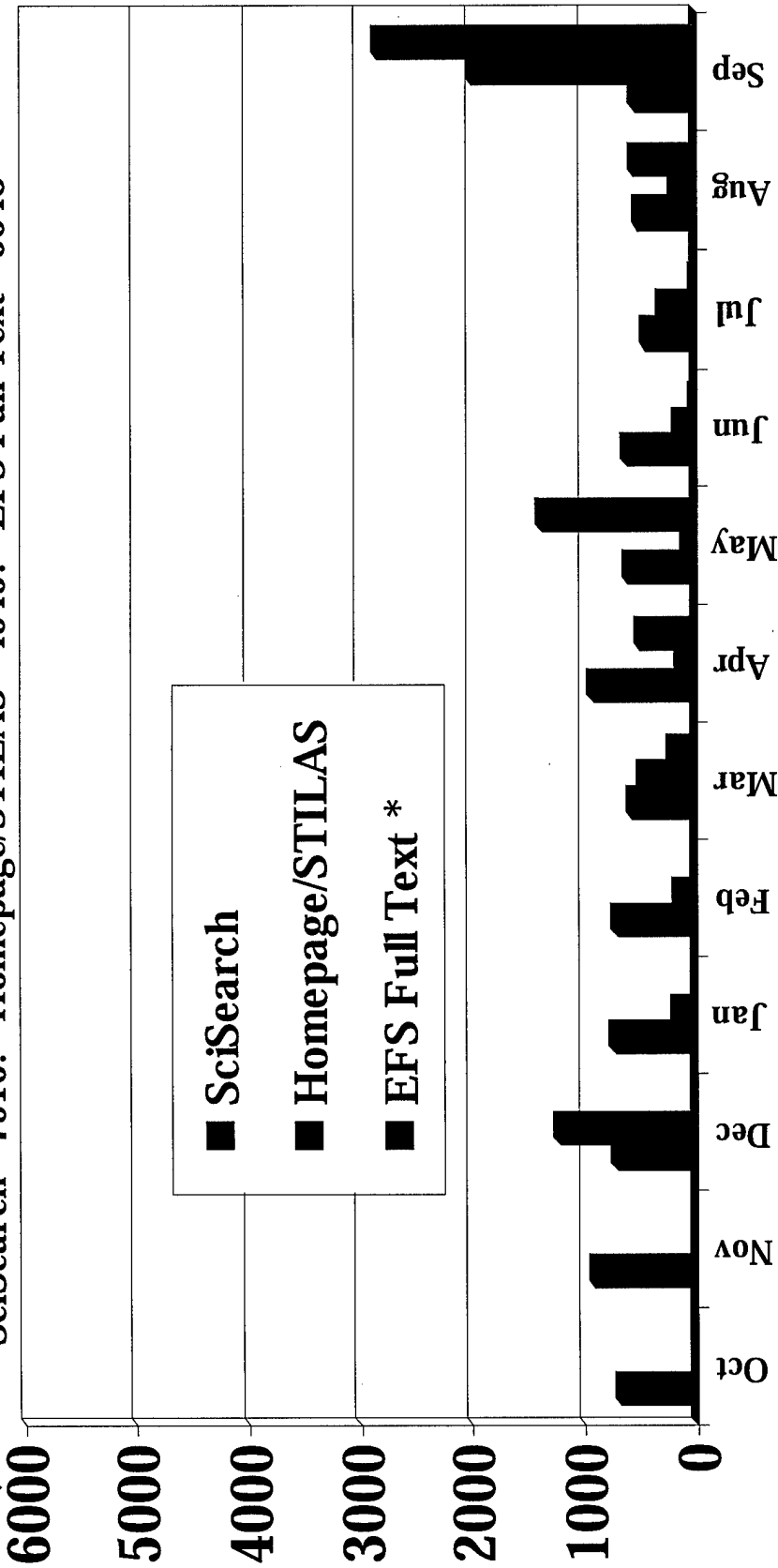


# LIBRARY NETWORK USAGE FY 97

Total Hits to Date 18,410\*\*



SciSearch - 7916: Homepage/STILAS - 4945: EFS Full Text - 5548



SciSearch	673	907	700	718	704	572	913	602	612	451	517	547
Homepage/STILAS			1217	178	166	475	150	92	164	295	201	2007
EFS Full Text *					218	503	1372	27	18	18	550	2850

\* EFS Fileroom segregated to Lib1 Server Mar-97. Separate statistics began then.

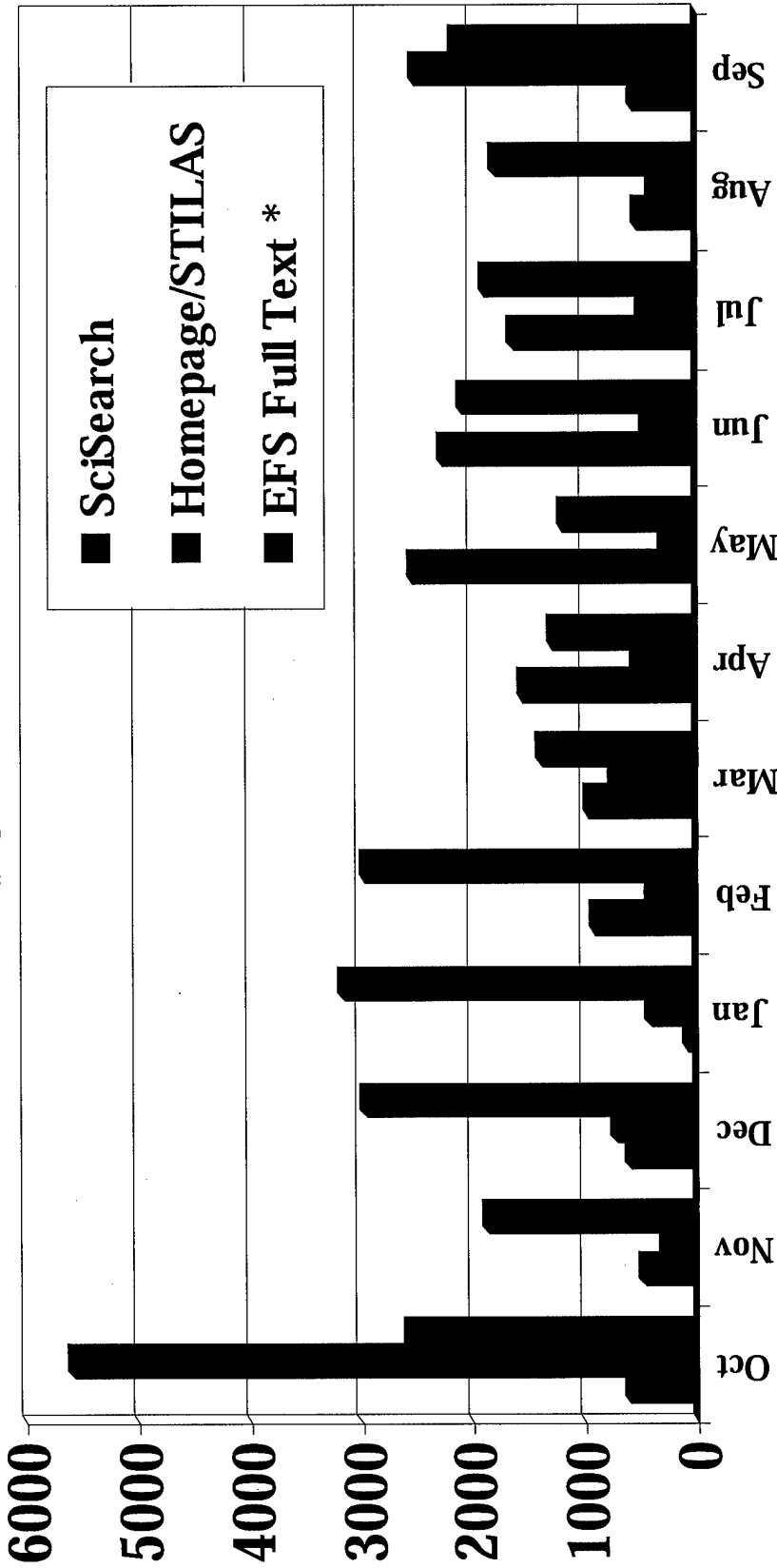
\*\* Hot links not included



# LIBRARY NETWORK USAGE FY 98

Total Hits to Date 69,999\*\*

SciSearch - 20690: Homepage/STILAS - 18379: EFS Full Text - 30930



Month	SciSearch	Homepage/STILAS	EFS Full Text*
Oct	603	5579	2581
Nov	474	292	1869
Dec	600	724	2962
Jan	86	416	3160
Feb	909	418	2973
Mar	966	739	1387
Apr	1558	541	1287
May	2548	297	1204
Jun	2277	462	2092
Jul	1639	496	1899
Aug	539	401	1800
Sep	574	2525	2168

\* Totals from 12/96 to present. EFS Filerroom segregated to Lib1 Server Mar-97. Separate statistics began then.

\*\* Hot links not included

# HOW HAS THIS BECOME A REALITY?

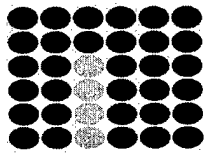
This new technology application is the result of an

## Optical Imaging System & Scientific and Technical Information Management

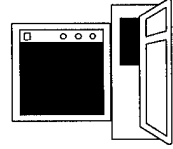




Optical  
Character  
Recognition



Unix



PC's



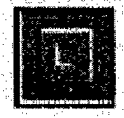
Electronic File System

**AVATAR**

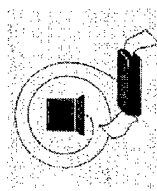
Imaging  
Software



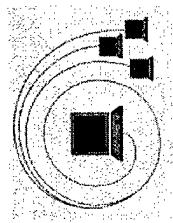
Image  
Verification



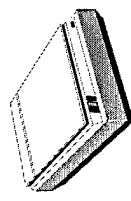
Job  
Control



Peripheral  
Attachments



Networking



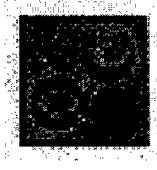
Scanning



Image  
Display



Windows NT



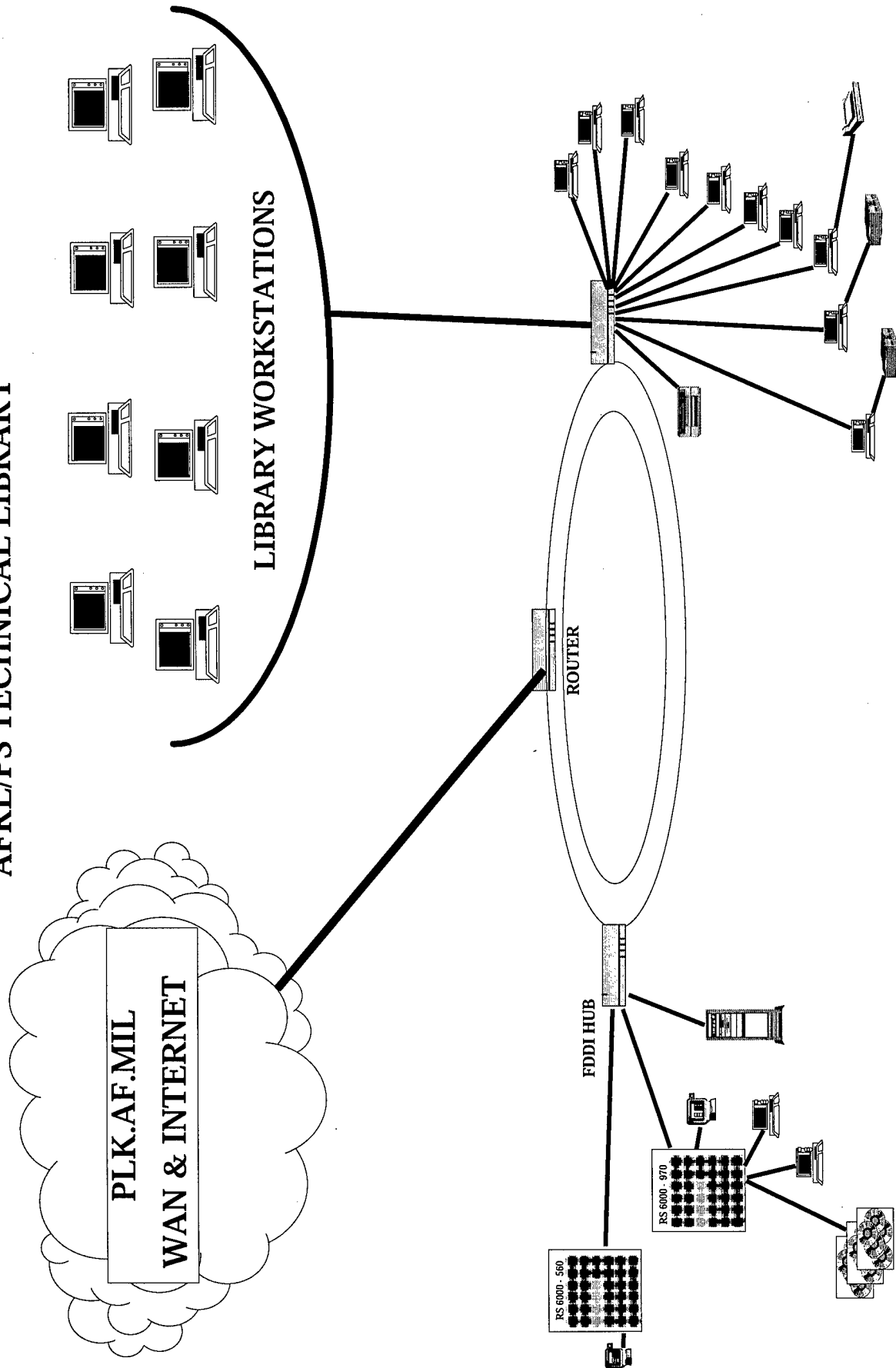
Quality  
Control

# NETWORKING HARDWARE & SOFTWARE

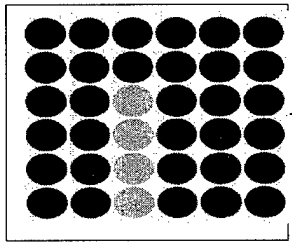
*EnMasse!*

# VIRTUAL LIBRARY CONFIGURATION

AFRL/PS TECHNICAL LIBRARY

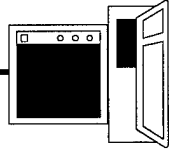




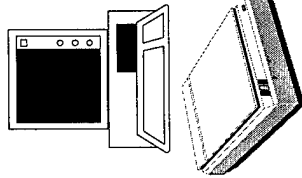
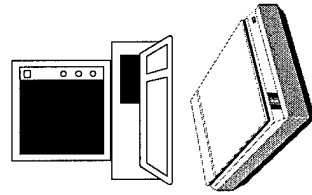
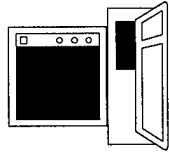
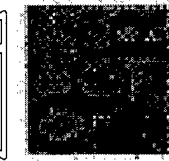
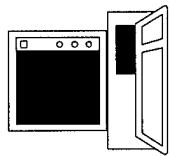


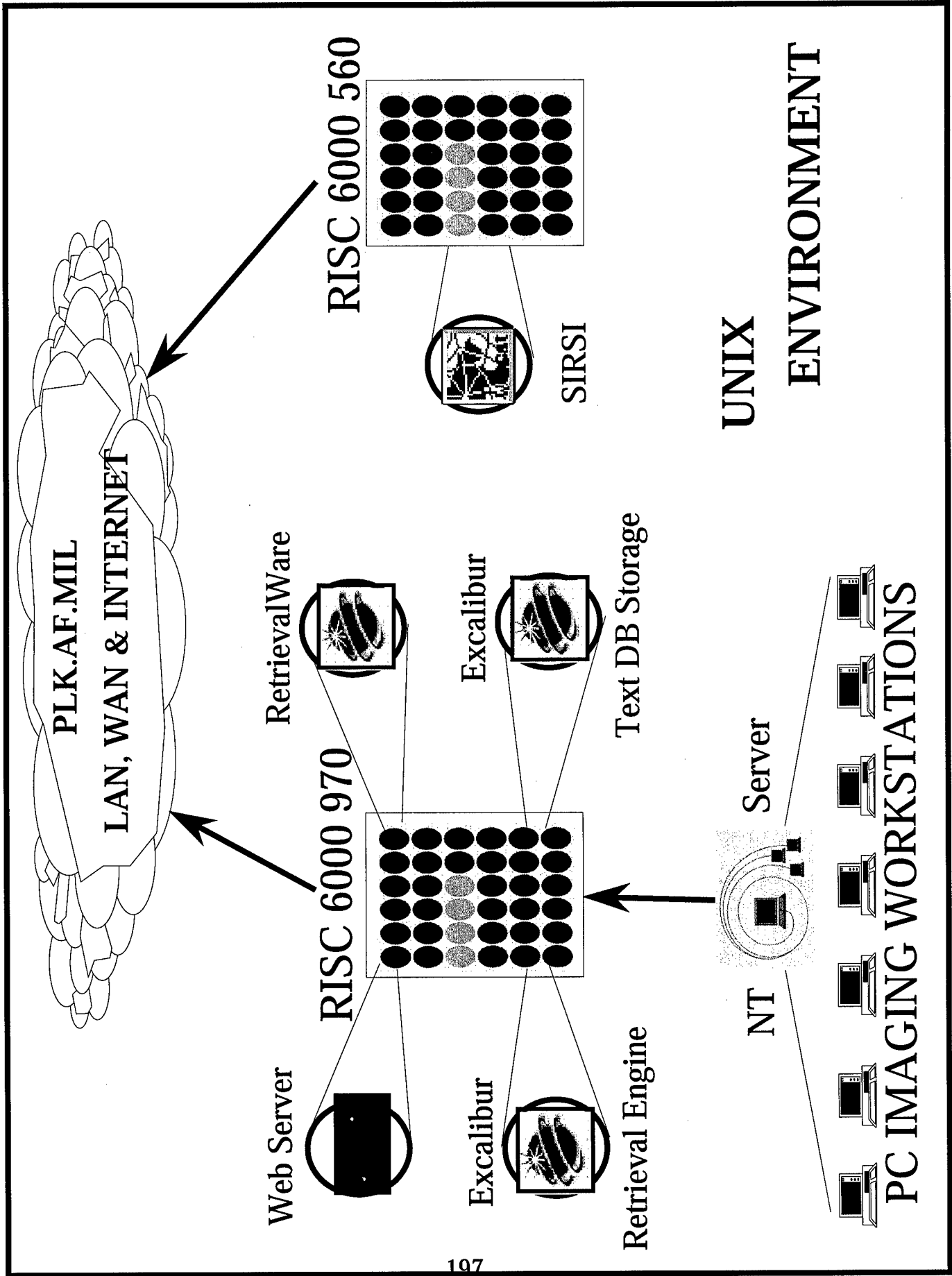
UNIX

SERVER

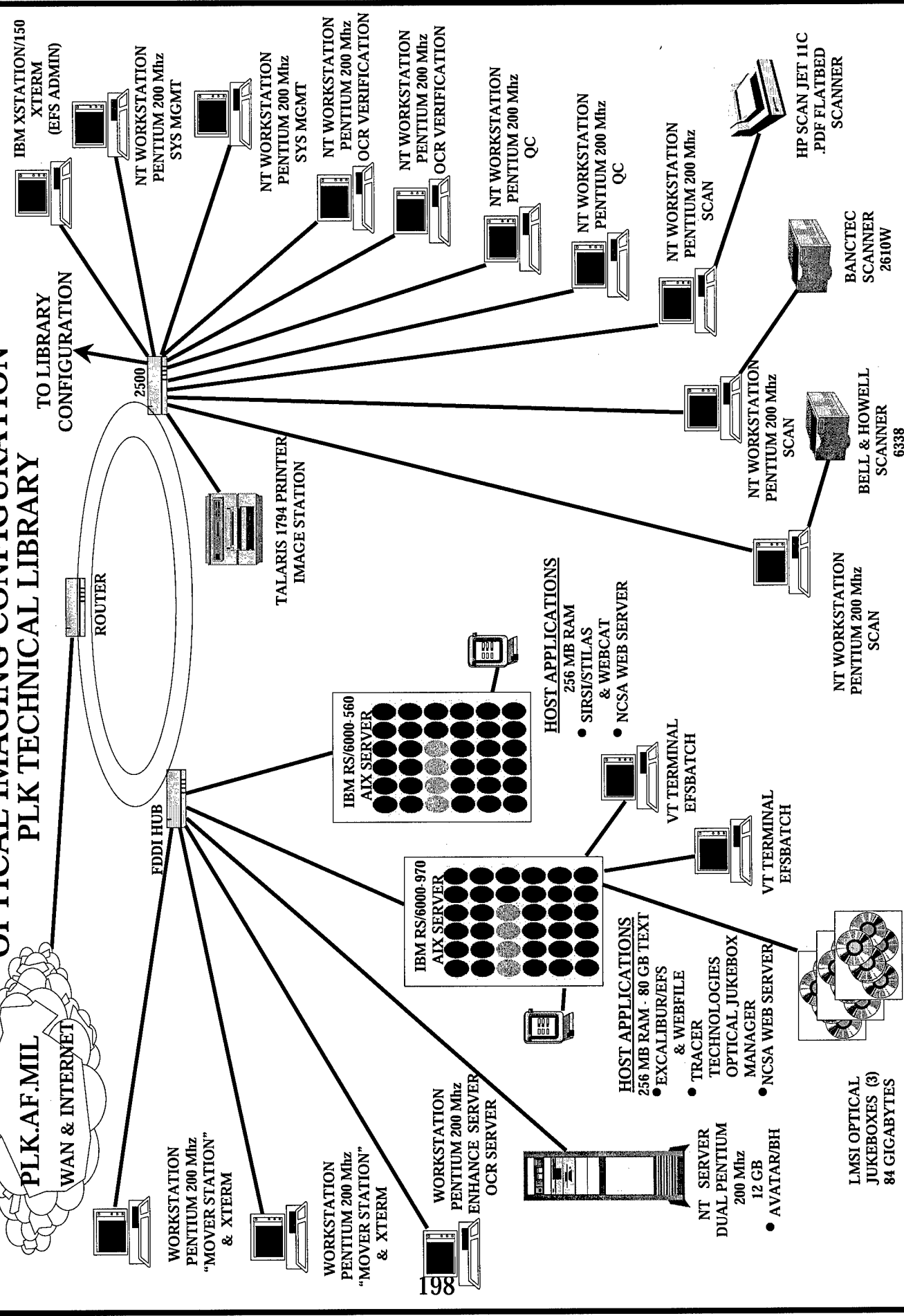


File Moving  
Station





# OPTICAL IMAGING CONFIGURATION PLK TECHNICAL LIBRARY



## Scanners, Software & Costs

### Scanners

- Bell & Howell (23 duplex pages/min.- 45 images) - \$25,000
- BancTec (45 duplex pages/min.- 90 images) - \$24,000
- Intelliscan 240 (120 duplex pages/min.-240 images) - \$150,000

### Software

- Kofax Ascent - Scans, "Fixes", OCR's, Enhances, & Exports (highly automated) - \$25,000
- Avatar EnMasse - Scans, "Fixes", OCR's, Enhances & Exports - \$8,000
- Library Code - Internally Developed automated renaming & batching software - \$25,000
- NTS - Creates .pdf's - \$8,000
- Zylab - Creates full text searchable CD-ROMs - \$3,500
- RetrievalWare - \$100,000

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### Servers

- (2) IBM - RS 6000 - moderately equipped - \$100,000
- NT Server - dual processor w/ built in RAID storage - \$24,000

### Storage

- RAID 1/2 Terabyte - \$150,000

### Workstations

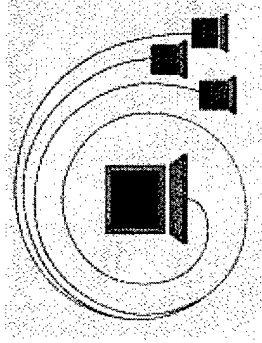
- (12) - Pentium 200 MHz - each \$2,500
- (4) - Pentium II - .pdf creation - no monitors - each \$2,000

### Staff

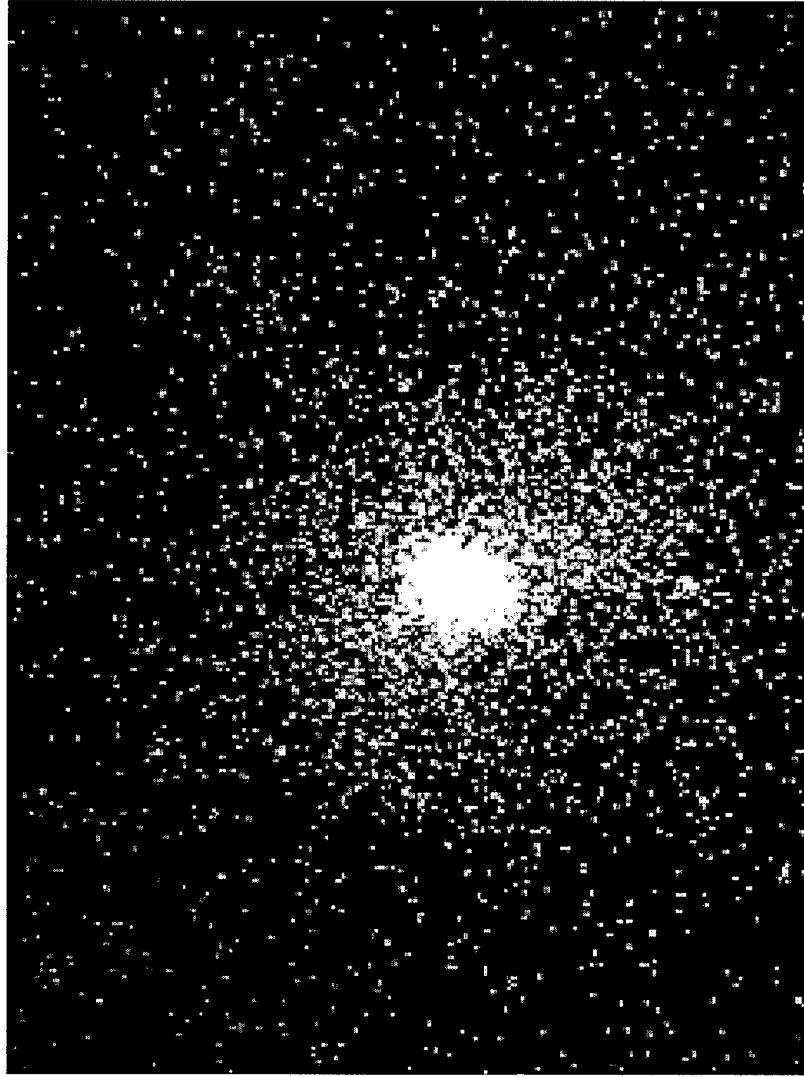
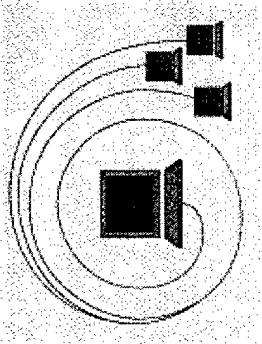
Varies but systems administration is required

## ADVANTAGES & SAVINGS

- 1) Access on demand on personal PC's to bibliographic records and links to searchable full text documents and images.
- 2) Savings on library construction costs.
- 3) Savings on personnel costs for document handling.
- 4) Services available to other agencies for Optical Image Processing.
- 5) Savings on wear and tear on original documents.
- 6) Savings on postage and travel costs for personnel to obtain documents.



# THE INFORMATION SYSTEM IS



**EXPANDABLE**

**As of October 1, 1998 we have;**

- **Completed hardware connections.**
- **Completed software interfacing.**
- **Scanned 2.6 million pages.**
- **Transferred 36,000 documents into EFS.**
- **Implemented Electronic Journals.**
- **Upgraded STILAS.**
- **Implemented SciSearch.**
- **Implemented Forms.**

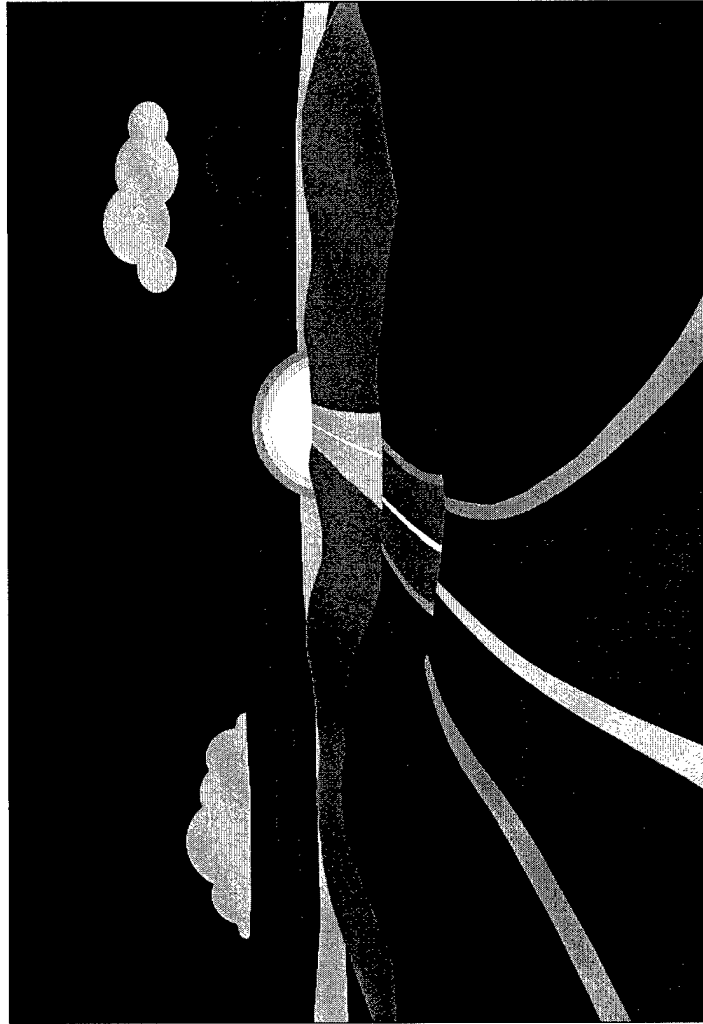
# Overall Project Costs

From Beginning in 1995

**\$2,000,000**



# WHAT DOES THE FUTURE HOLD?

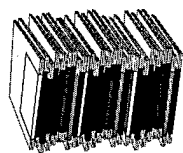


# FOR A FRAME OF REFERENCE

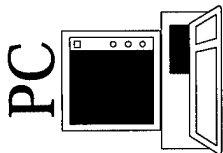
## STORAGE CAPACITY



X



=



PC

1.44 MB

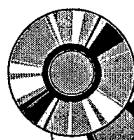
236

340 MB



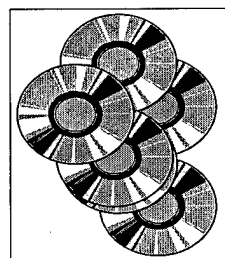
16.47 PC'S

=



5.6 GB

JUKE BOX



10 DISCS

56 GB

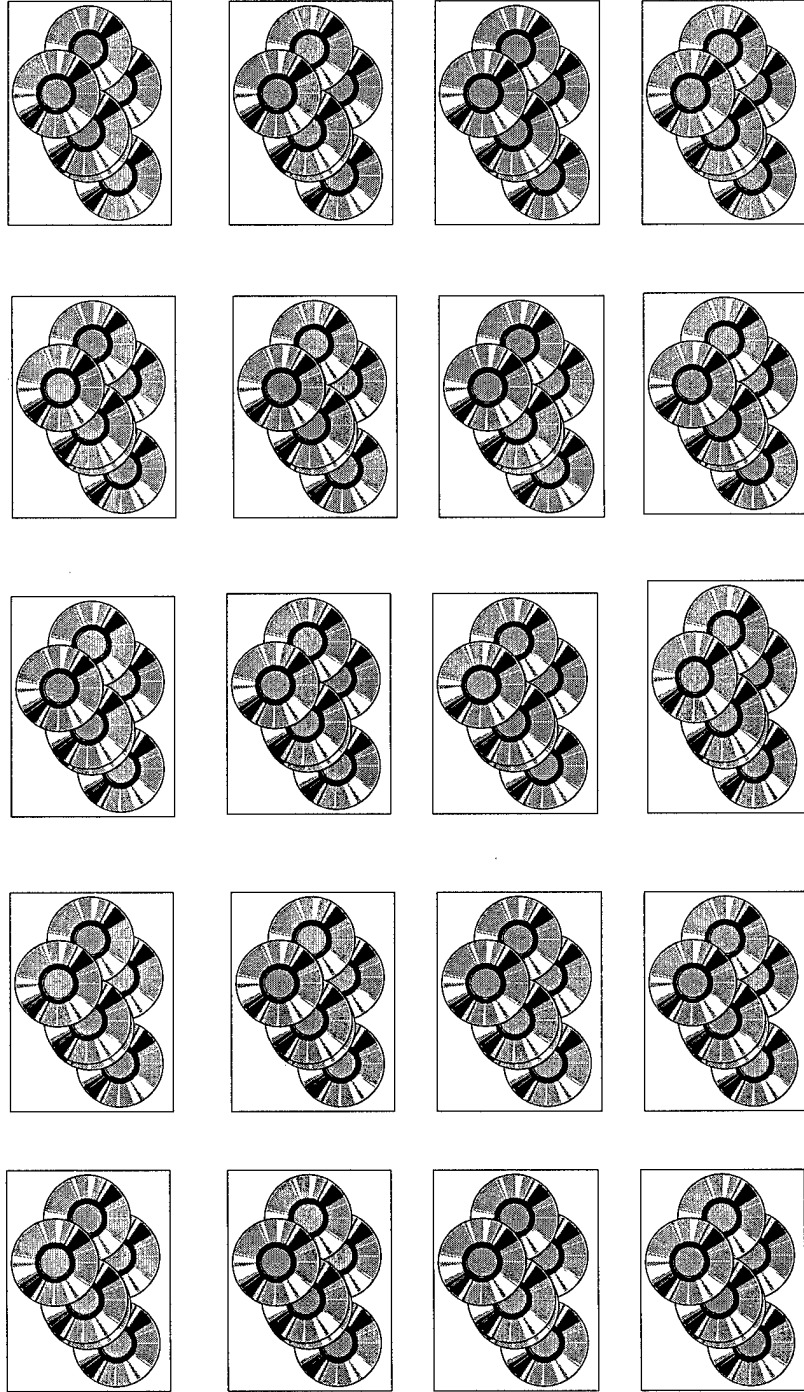
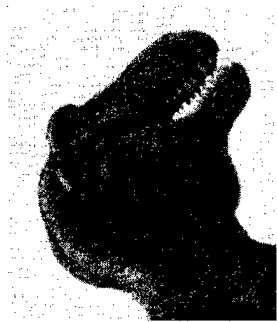
1,000,000 IMAGE PAGES



**LIBRARY TECHNICAL REPORTS**

**20 MILLION PAGES**

**TERABYTE OF OPTICAL STORAGE**



## Projects in Development

- Expanding Storage Capability.
- Adding More RetrievalWare Libraries.
- Adding More Electronic Journals.
- Implementing AFRL Wide Access.
- Expanding DTIC Full Text Reports.



# LIBRARY SERVICES ALLIANCE

Founded in 1992

## MEMBERS

- Los Alamos National Laboratories
- Sandia National Laboratories
- Phillips Laboratory (Kirtland Air Force Base)
- University of New Mexico
- New Mexico State University
- New Mexico Institute of Technology and Mining

### Goals:

- Sharing electronic resources
- Work together to enhance combined collections of the member libraries
- Provide fast interlibrary document delivery
- Sharing access to the expert knowledge of library staff

### Vision:

To be a world class information provider to our primary communities while enhancing the scientific and technical research competitiveness for New Mexico.

### Mission:

To enhance access to scientific and technical research information for the Alliance scientific and technical community through cooperative ventures.



**FOR MORE INFORMATION**

**ON  
OPTICAL IMAGING SERVICES**

**OR  
DATABASE ACCESSING**

**CONTACT:**

**PHILLIPS LABORATORY TECHNICAL LIBRARY**

**1-505-846-4767 DSN 246-4767 FOR IMAGING SERVICES**

**1-505-846-4770 DSN 246-4770 FOR DATABASE ACCESSING**

**Trademarked names and graphics appear throughout this presentation. These names and graphics are being utilized for educational purposes only. Their usage is to the benefit of the trademark owner and with no infringement intention on the part of the presentation developers.**

## **PRODUCTION**

**Kandy L. Thorn, Air Force Research Lab  
(Phillips Research Site, Kirtland AFB, NM)**

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# Digitization at Fort Leavenworth

Slow dancing in the fast lane



# Me at Work

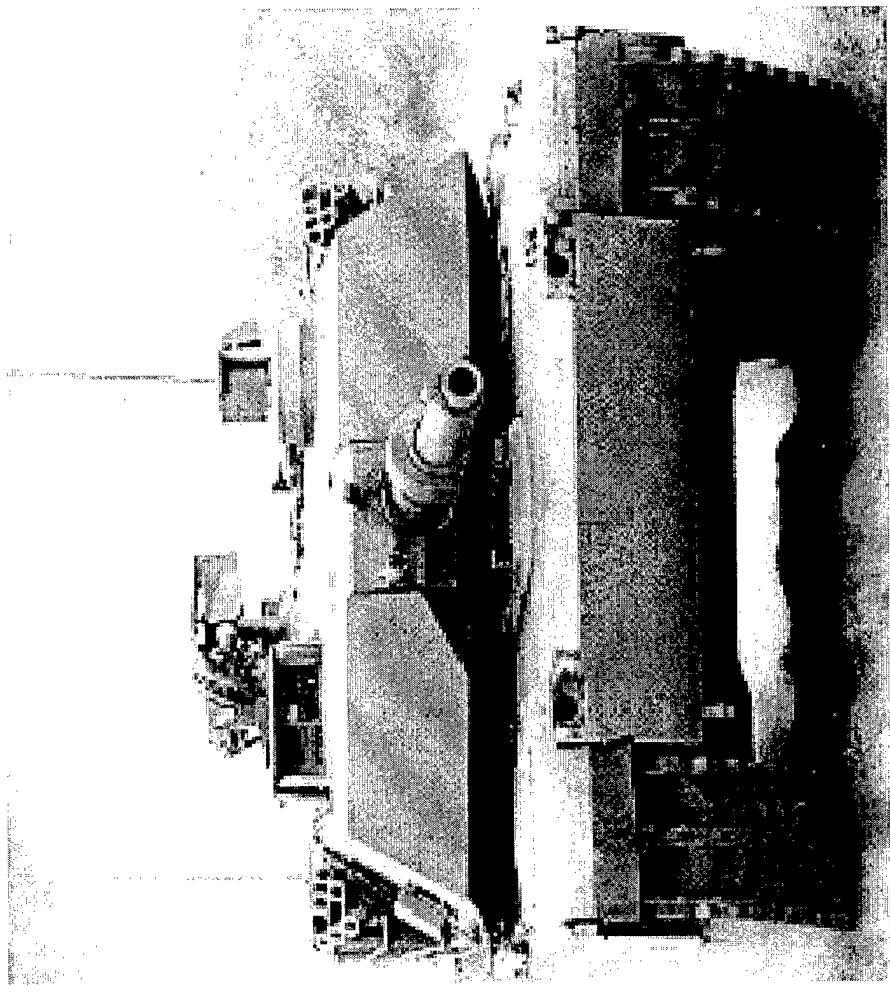
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# The Future for Libraries?

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# What one library is doing

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- Digitization can supplement but not replace older media
- Access / preservation: same coin
- Confidence in digital preservation is low
- Integration of technology with parent organization does not work if unsupported by management
- Partnership with CALL

# Projects going on now

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- Documents catalog (closed system)
- Preservation of CGSC papers in four places: bound record copy, DTIC, circ coll, CALL
- Preservation scanning of fragile books
- Access scanning of mission documents
- Capture of electronically published documents.
- Conversion of library publications into HTML
- Conversion of Military Review to PDF

215

# Promising stuff

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- Conversion of card catalog(s) into databases
- Vertical File
- Authority pubs
- Link Horizon records to image files via in-house server, browser?

216

## KLNB initiatives

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- Kansas Library Network Board
- Similar problems at state level
- Digitization grants, db creation, local resources, partnerships, etc.

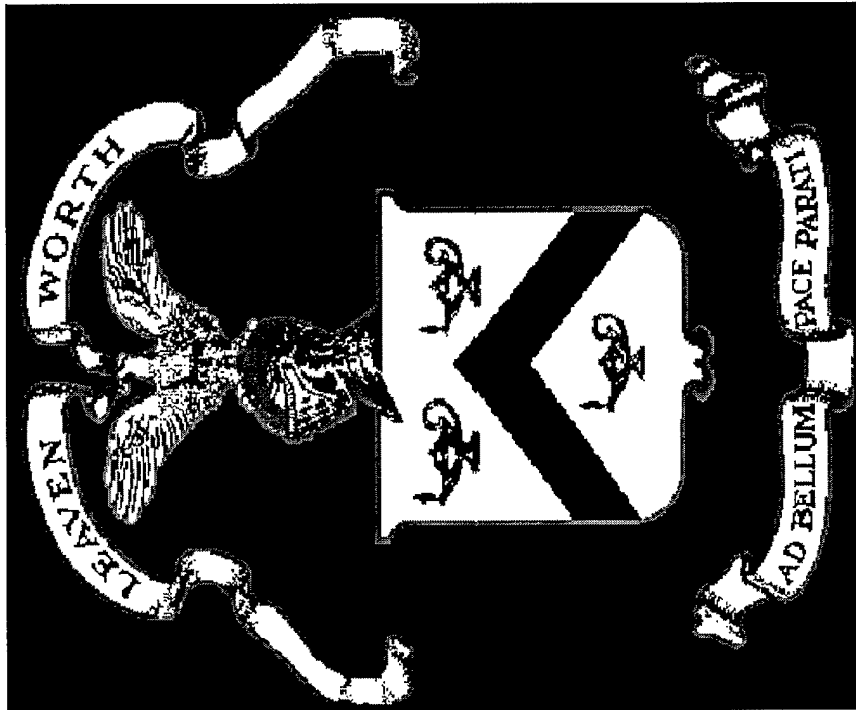
217

# Posers

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- Money / Labor / Will
- No staff resistance to the idea, but some to actually doing the dog-work
- Time-scale: Theses: 2 years. Mil Rev: 18 months, or 10 years. Docs catalog: longer than I want to stay in Federal service.
- People who say, "Why don't you just scan it in?"
- Salesmen who want to sell you a CD, regardless.
- "Everything's on the Web; libraries are obsolete."
- Projects we must do but don't have time for





# Building the NRL Digital Library

Desktop Access to Information DoD Researchers Need

Military Librarians Workshop

November 18, 1998

Laurie E. Stackpole  
laurie.stackpole@nrl.navy.mil  
Ruth H. Hooker Research Library  
Naval Research Laboratory

# Game Plan

- Delivering information to the desktop
  - InfoWeb Catalogs and Databases - pointers plus content
  - TORPEDO *Ultra* - for access to content archived locally
  - Contents-to Go - *semi*-digital document delivery
- Providing digital library content - some examples
  - Digitizing
  - Licensing
  - Joint ventures
  - Consortial buys
- Next steps - integrating digital library services
- InfoWeb/TORPEDO *Ultra* demonstration - how it works

# InfoWeb Information System and Gateway

<http://infoweb.nrl.navy.mil>

- Web-based, single point of entry to
  - Library information and services
  - Locally mounted and remote databases
  - Content-enabled NRL STILAS WebCat catalog
  - Reviewed and annotated Web sites
    - Computer Support
    - Government Information
    - Internet Directories
    - Science Resources
  - TORPEDO *Ultra* Digital Library Initiative

# Representative InfoWeb Resources

- Databases - Web Site • E-journals - Web Site
  - FirstSearch
  - Institute of Physics
  - Community of Science
  - IAC InSite
  - Meteorological & Geoastrophysical Abstracts
  - ACM, ACS, AVS, OSA
- Databases - Local • E-journals - Local
  - Science Citation Index
  - American Physical Society
  - NTIS
  - Elsevier - 200+
  - Materials Safety Data Sheets
  - American Institute of Physics (coming)
  - Encyclopedia of Associations

# The Content-capable Web OPAC

- Adding URL to catalog records permits users to retrieve and display digitized document content
- NRL provides such access through WebCat
  - To reports and NRL reprints (catalog entries)
    - User identifies item through catalog search
    - Clicks on hyperlink to display PDF document
  - To journals (cataloged at title level)
    - User clicks on desired hyperlinked year range
    - Automatically links to TORPEDO or remote site
    - Browses journal issues to select and display article

# TORPEDO Digital Library Initiative

- Desktop access to full document content
  - Equations, formulas, graphs, and charts
- Web-based - user needs only network connection and graphical Web browser
- TORPEDO first went online in 1995
- Upgraded in 1998 to TORPEDO *Ultra*

# HOW TORPEDO *Ultra* Works

- TORPEDO *Ultra* is built on a COTS search engine
  - RetrievalWare by Excalibur
- TORPEDO *Ultra* delivers text and page images
  - TIFF-encapsulated optimized PDF
  - publisher-generated distilled PDF
- Library gets PDF by
  - scanning and OCRing documents
  - converting TIFF images provided by publishers
  - obtaining PDF directly from publisher
  - downloading from the Web (with permission)

# TORPEDO *Ultra* Documents Online

- TORPEDO *Ultra* currently provides access to
  - 200+ Elsevier journals
  - 6 APS journals
  - 5,000 NRL technical reports
  - 1,000 other reports
  - 10,000 NRL-authored journal articles
  - 2,000 NRL Press Releases
- Coming soon
  - 17 American Institute of Physics journals



# Advantages of TORPEDO *Ultra*

- NRL researchers benefit from TORPEDO *Ultra* through
  - Local access and high speed connectivity
  - A single search interface for all materials
  - Integrated information from associations, commercial publishers, and government
  - Ensured access to locally maintained archive

## A Low-cost, 'Almost Digital' Service Delivering Journals to the Desktop

- Less than half of NRL's 1,000 journals are digital
- Contents-to-Go fills in the gap
  - E-mail delivery of TOC for most journals
  - Article photocopy requests by return E-mail
- Researchers select titles via InfoWeb interface
- Service is fully automated
  - Vendor E-mails data to Library weekly
  - Automatically redistributed to subscribers

# ‘Almost Digital’ Goes Digital

- For TORPEDO journals, TOC message header contains URL for journal
- Links to journals on publisher Web sites are being added to TOC messages
- With release of TORPEDO *Ultra*, E-mail TOCs will link to article in TORPEDO

# Digitizing Agency Documents

- Library began scanning reports in 1989
- Over 180,000 Unclassified reports (nine million pages) are networked in Library
- Reports w/o distribution limitation statements (UU) are OCR'd for TORPEDO
- 6,000 (5,000 NRL) available at desktop
- Other types of information being digitized:
  - NRL-authored reprints
  - Public Affairs press releases

## NRL Site Licenses

- Provide NRL and ONR with unlimited desktop access through Library's InfoWeb Information System and Gateway
- Cover use by employees and contractors at
  - NRL DC Campus
  - NRL- Stennis, MS
  - NRL- Monterey, CA
  - ONR Headquarters, Arlington, VA
- Negotiated by Library; reviewed by Legal

# License for Locally-mounted Journals Elsevier Electronic Subscriptions

- Electronic version of print journals
- Publisher delivers: TIFF images\*, OCR'd text,  
and SGML bibliographic headers
- NRL: 200+ journals delivered on CD-ROM
- TIFF converted to PDF, stored on RAID
- Integrated with other information and made available  
through TORPEDO
- Archived journals available to NRL "in perpetuity"

» \*PDF now available for many journals

# APS-NRL CRADA

(Cooperative Research & Development Agreement)

- Investigation of search and retrieval systems for the display and printing of journal images and the use of the Internet as a transmission medium.
- By-Product: Page images of Physical Review series 1985-1995 produced by NRL
- All images are available through PROLA (Physical Review On-Line Archive)  
[PROLA URL <http://prola.aps.org/>]

# Federal Science Agency Consortium

- **National Research Library Alliance (NRLA)**
  - NASA Goddard Space Flight Center
  - National Institute of Standards and Technology
  - National Science Foundation
  - Naval Research Laboratory
- **Formed 1997**
- **Purpose: Improve access by user communities to a common core of scientific information**



# First Product Licensed by NRLA

- New ISI product in 'Web of Science' suite
  - All NRLA members had network licenses for Science Citation Index (CD-ROM)
  - All were interested in migrating to new Science Citation Index Expanded Web product
  - Individual quotes for SCIE were significantly higher than consortium pricing
  - All member credits for prior year purchases were applied to entire NRLA procurement

# The Next Step in Digital Library Work

## Integrating What We've Already Got

- What we've learned:
  - Researchers vary in information-seeking behaviors
  - Information by its nature is dispersed
- Our goals for our users:
  - Be able to get to content any way they choose
  - Be oblivious to where the content resides
- The solution:
  - Build systems and services that talk to each other

## Example of Integrating Digital Systems Enabling SCIE to Access Full Articles

- NRL and ISI are carrying out a joint project to enhance both SCIE and TORPEDO *Ultra*
- Three phases
  - Phase I: Add links from SCIE article records to journals in TORPEDO *Ultra* for access to content
  - Phase II: Add links from TORPEDO *Ultra* to article “wrapper” in SCIE for access to references
  - Phase III: Add links from SCIE to journals residing on publisher Web sites for access to content

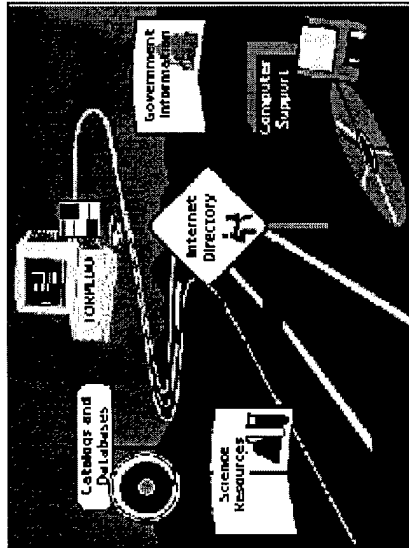


# The Ruth H. Hooker Research Library and Technical Information Center

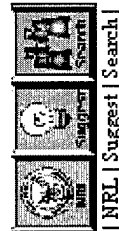
Welcome to the Home Page of the Ruth H. Hooker Research Library and Technical Information Center of the Naval Research Laboratory.

We are looking for ways to improve TORPEDO. Please fill out our survey to voice your opinions. Survey responses will also be used by publishers in developing electronic journal products and demonstrate NRL/ONR interest in evaluating such services.

[Search InfoWeb](#) or check out the [guideposts](#) to notable new information sources.



- Catalogs and Databases
- Computer Support
- Government Information
- Internet Directory
- Science Resources
- TORPEDO



[webmaster@library.nrl.navy.mil](mailto:webmaster@library.nrl.navy.mil)  
Updated: 13-JUN-96  
Maintained by: Erik M. Schwartz

Francis J. Buckley, Jr.  
Superintendent of Documents  
Government Printing Office  
remarks to the  
42nd Annual Military Librarians Workshop,  
November 18, 1998  
Old Town Alexandria, Virginia

**Disseminating U.S. Government Information  
in the Digital Age**

**SLIDE 1**

I appreciate this opportunity to speak to you today about the Federal Government information dissemination programs in the Government Printing Office (GPO), and I am certainly pleased to participate in this program, sponsored by the Military Librarians Division of the Special Libraries Association. I have been a member of SLA for over 20 years, having become involved initially with many corporate librarians, supplying them with government publications from the regional depository collection at the Detroit Public Library.

**Historic Perspective**

To give you a brief historical perspective and background information, let me explain the mission of GPO is to produce and procure information products for the federal government and to disseminate them to the public. We like to think of the Federal Depository Library Program (FDLP) as America's oldest "freedom of information" program. From its beginning, the depository program has been built on several underlying principles;

**SLIDE 2**

- A well-informed citizenry, cognizant of the policies and activities of its representative Government, is essential to the proper functioning of democracy;

**SLIDE 3**

- The public has a right to Government information which has been prepared and published at the public expense;

**SLIDE 4**

- The Government has an obligation to ensure the availability of, and access to, public information at no cost to the user;

**SLIDE 5**

- The publications provided through the Federal Depository Library Program are a permanent and official source of Government information; and

**SLIDE 6**

- The public, participating libraries, and the Government all benefit from the efficiencies afforded by a centralized distribution system, such as the

depository program, which ensures the wide availability of Government information products at no charge to the user at decentralized sites throughout the United States.

When the U.S. Congress relocated the Superintendent of Documents function from the Interior Department to GPO more than 100 years ago, it linked the cataloging, indexing, distribution, and sales of government information products with GPO's printing operations to create an integrated, effective system for collecting the information products produced by the Government and providing public access to them. In the new burgeoning electronic environment, we are in the process of establishing the policies, procedures, and systems to accomplish the same goals.

That is where GPO came from. Now I will talk about the programs I oversee as the Superintendent of Documents, our current activities and how our future looks.

### **Superintendent of Documents Programs**

I believe strongly in both the need for citizen access to Government information as well as their rights of access, based on my years of public service as a documents librarian assisting people find the information they needed for education, business, or personal lives even if they didn't know it came from the government. Thus, I was extremely pleased to be asked by Mr. DiMario, the Public Printer, to serve as the first librarian Superintendent of Documents. My appointment as an information professional is but one more indicator of the growing recognition of the importance of access to federal government information in our society and in GPO.

#### **SLIDE 7**

As the Superintendent of Documents I oversee five important programs which I view as complementary components of a whole government public access system; to which the non-profit and private sectors add value and produce additional information products for commercial dissemination and broader use. Our programs are:

- The Federal Depository Library Program, through which libraries receive government information products at no cost in return for making them available to the public at no charge;
- The no-fee electronic federal information service: GPO Access
- The nationwide Sales Program which permits individuals, businesses, schools, libraries, or organizations to purchase copies of government information products at relatively low cost. It includes a central order service, 24 bookstores, and the Consumer Information Center in Pueblo, CO;
- The International Exchange Program through which we distribute U.S. government information products to foreign national libraries, as designated by the Library of Congress, which in turn agree to send copies of their country's official publications to the Library on a reciprocal basis; and

- The distribution of publications we perform on behalf of Federal agencies, which reimburse GPO for warehousing and dissemination services.

#### **SLIDE 8**

The overall goal of the depository library program is to assure current and permanent public access to U.S. government publications, defined in Title 44, U.S. Code, Section 1901 as "informational matter which is published as an individual document at Government expense, or as required by law."

#### **SLIDE 9**

Under Title 44, Section 1902, of the U.S. Code, "government publications, except those determined by their issuing components to be required for official use only or for strictly administrative or operational purposes which have no public interest or educational value and publications classified for reasons of national security, shall be made available to depository libraries through the facilities of the Superintendent of Documents for public information."

#### **SLIDE 10**

As of September 30, 1998 there were 1,360 libraries in the depository program; of that number over 50% are in general academic libraries, 20% public libraries, and 11% academic law libraries. There are smaller percentages of depositories in community colleges, state and special libraries, Federal and state court libraries and Federal agencies.

#### **SLIDE 11**

There are 53 regional depository libraries which have agreed to receive all the materials we distribute and retain them for permanent public access.

#### **SLIDE 12**

The remaining libraries are selective depositories which choose what materials they want to receive based on the demands of their constituencies and have minimum 5-year retention responsibilities. Of course, many selectives retain the publications they receive for much longer periods for reference purposes. Currently, there are 16 military libraries in the depository program.

#### **SLIDE 13**

In fiscal year 1998, we distributed over 14.4 million copies of 38,989 tangible products to depository libraries. The figures are broken down on the slide.

The primary method we use to obtain publications for the depository program is to ride the requisitions for printing or printing procurement which flow through GPO's centralized systems. Agencies which print or procure publications on their own, or privatize or commercialize their publications, are supposed to provide copies to the depository program at their own expense -- a requirement more honored in the breach than followed -- creating what we and the depository community call "fugitive documents." This problem has only been exacerbated by the rapid growth of reproduction technologies and digital technologies used by

government agencies for decentralized production of printed or electronic information products.

### **GPO Access**

#### **SLIDE 14**

In addition to dissemination of printed or microfiche products, GPO strongly supports the increased dissemination of Government information in electronic formats in tandem with federal agency transition to use of CD-ROM or online database technology.

When the Government Printing Office Electronic Information Access Act was passed in 1993, we were charged to:

#### **SLIDE 15**

- 1) Maintain an electronic directory of Federal electronic information,
- 2) Provide a system of online access to the Congressional Record, Federal Register, and other appropriate publications distributed by the Superintendent of Documents,
- 3) Operate an electronic storage facility, and
- 4) Maintain a Federal Bulletin Board.

Since going "live" in 1994, GPO Access has become one of the leading Federal sites on the Internet. It provides access at no charge to government information products from all three branches of Government, including the *Federal Register*, the *Congressional Record*, the *Commerce Business Daily*, Congressional bills and reports, and other government information products, as well as a growing number of agency Government Information Locator Service (GILS) records. In addition, GPO has created a suite of Pathway locator services which enable users to identify and connect to online agency electronic resources.

#### **SLIDES 16 & 17**

The next 2 slides show the most popular databases searched on and/or retrieved from GPO Access. We are seeing over 13 millions items downloaded each month.

#### **SLIDE 18**

As of September, 1998, there were over 85,000 titles available on GPO servers. There were another 45,000 items on agency servers to which GPO Access pointed. This is a total of over 132,000 electronic "publications" that are accessible through GPO's web site. These figures are broken out on the accompanying slide. These numbers can be compared to the nearly 40,000 tangible government information products distributed in last fiscal year to illustrate our growing transition to a more electronic FDLP.

The website edition of the *Monthly Catalog* is notable for being an online catalog that provides users with the means to locate titles maintained within depository



library collections and/or to obtain hot linked access through *Monthly Catalog* records to electronic publications maintained at Federal agency websites. An increasing number of electronic publications are being added to the approximately 4,000 titles already accessible via the online version of the *Monthly Catalog*.

In fact, the growth in electronic dissemination, reflecting the transition of agency publishing distribution practices from print to electronic mediums, allows more libraries and users than ever to have access, whether they are depositories or not.

While electronic dissemination makes geographic distances less of a barrier to obtaining information, it brings new challenges as well. Librarians are still necessary in order to provide the training and assistance to help users access the government information for which they are searching. In terms of hardware, a recent survey of our depository libraries indicates that over 87% now offer publicly accessible workstations for access to the Internet. Many of the remaining libraries offer mediated access to electronic information. Only 2% of the depositories cannot fully handle electronic government information offerings. In order to meet the needs of depository librarians and the public, GPO provides a user support team for GPO Access, and offers training and continuing education opportunities.

#### **Electronic Transition/Collection Management**

An electronic transition of the depository program has been underway since 1995 when, at the request of Congress, GPO put forward a plan for a two-year transition to an essentially all-electronic FDLP. When this ambitious plan was released for public review the nearly universal response was that the proposed transition was too fast for most libraries, the public, and government agencies to accommodate. In 1996, based on extensive stakeholder involvement and public comment, GPO completed a "*Study to Identify Measures Necessary for a Successful Transition to a More Electronic Federal Depository Library Program.*" In the study, GPO proposed, and the Congress accepted, a five-to-seven year transition period, during which large numbers of Federal information products would be made available electronically through the FDLP, essentially in tandem with agency utilization of electronic formats for information dissemination. As you can see from the statistics I've cited previously we are moving rapidly into a heavily digital environment.

I was very pleased when I took over the Superintendent of Documents programs that the development of a collection management plan for electronic information was already underway, since I believe in collection development as the basis for service to the clientele of an institution. The plan, which was released at the Depository Library Council meeting in October, defines the policies and procedures we need to manage the various electronic government information products we make available to depository libraries and the public.

We recognize the Electronic Collection consists of four elements:

**SLIDE 19**

- (1) Core legislative and regulatory GPO Access products which reside permanently on (GPO) servers;
- (2) Other remotely accessible products either managed by GPO or other institutions with which GPO has established formal agreements;

**SLIDE 20**

- (3) Remotely accessible electronic Government information products that GPO identifies, describes, and links to but which remain under the control of the originating agencies; and
- (4) Tangible electronic Government information products distributed to Federal depository libraries

With the transition to publishing and disseminating Government information electronically we recognize the responsibility for current and future access is shifting from the depository libraries to the Government. When paper was the primary medium for information storage and dissemination, we could send it out to libraries to use and to keep for long-term access. As the FDLP grows increasingly more reliant upon intangible, online electronic information, GPO must ensure accessibility to government electronic information products.

This Electronic Collection Management Plan provides a policy framework for programs through which we will manage products in the Collection, link users to Federal Internet sites through locator services, provide appropriate instruction and support for Collection users, and ensure permanent access to electronic Government information products. A primary goal of the collection plan is to assure that access to and retrieval of these products is available to a broad spectrum of users possessing a wide range of technical capabilities.

We expect to coordinate the development of, and permanent public access to, the Collection with the Congress, the Library of Congress and the other national libraries, the National Archives and Records Administration, and other Government agencies, as well as depository libraries.

**Partnerships**

As the depository program continues its electronic transition, GPO is attempting to use the successful model of the distributed collection of tangible documents that are made permanently accessible through regional and selective depositories to assure permanent online accessibility to electronic government information products that are part of our new and growing online collection. We recognize other organizations and institutions will be needed to share the task of building, storing, disseminating and preserving the collection of FDLP electronic resources.

## **SLIDE 21**

The first partnership "brokered" by GPO was with the University of Illinois Chicago (UIC) for permanent access for files removed from the active main web pages of the State Department.

Another content partnership involves a relationship with the Department of Energy (DOE)/ Office of Scientific and Technical Information. The DOE electronic dissemination vehicle called "Information Bridge" is now accessible for free in depository libraries and therefore to the public via GPO Access. It is providing on-demand access to electronic versions of reports that were previously provided to depository libraries in microfiche. Close to 26,000 sci-tech documents in electronic medium dating back to January, 1996 are currently accessible.

In addition, we are working on a historic pilot project with the National Technical Information Service (NTIS) to provide depositories with digital images of federal government sci-tech and business reports from the NTIS collection on-demand and for free. Over the next year we will be testing the process with 20 libraries representing the various types and sizes of libraries in the depository program.

We have also been working with the National Library of Education and OCLC on a test project to make public domain reports from the Educational Resources Information Center (ERIC) available online through the FDLP. ERIC reports from January 1997 are being converted to TIFF image format and stored at OCLC, with access available through their FirstSearch user interface.

## **Fugitive Documents**

A crucial issue we continue to face is that many publications produced by the Government fail to be included in the depository program. Their absence from depository library collections impairs effective public access to Government information products. While many studies of the fugitive documents problem have been conducted, the exact number of publications that are not in the depository program has been difficult to isolate. We have estimated that as many as 50 percent of all tangible government information products are not being made available to depositories.

Four major factors have contributed to losses of key general interest publications for the depository program:

## **SLIDE 22**

1. decreasing compliance with statutory requirements for agencies to print through GPO or to provide copies of publications not printed through GPO to the FDLP;
2. electronic information dissemination via agency web sites without notification to the FDLP;

### **SLIDE 23**

3. the increasing trend for agencies to establish exclusive printing arrangements with private sector entities that place copyright or copyright-like restrictions on the products involved in such agreements; and

### **SLIDE 24**

4. increasing use by agencies of language in 44 U.S.C. 1903 that permits publications to be excluded from the FDLP if they are "so-called cooperative publications which must necessarily be sold in order to be self-sustaining."

## **Preservation**

As we continue moving into a more digital world and knowing that the trends I have discussed will lead to even more fugitive documents, there is rightly much concern over the preservation of government information products. Walt Crawford and Michael Gorman in their book, *Future Libraries: Dreams, Madness & Reality*, noted:

### **SLIDE 25**

"People of the future will only know that which we preserve. This is a weighty responsibility and one that should be in the minds of all librarians. Our praiseworthy pursuit of the preservation of intellectual freedom for today's materials should...be continued...allowing the record of the past to disappear is a kind of censorship."

That is a powerful statement; relating the lack of preservation of information to censorship. We at GPO and I personally remain concerned about the loss of government information. That is why we will continue to work on building partnerships, forging ahead with our electronic FDLP collection and looking to make some inroads on the fugitive documents problem.

## **Sales Program**

As I mentioned previously, our Sales Program is another avenue for dissemination. It affords individuals, businesses, and organizations the opportunity to purchase government publications at low-cost for personal use. The value of the Sales Program lies in its being the official source for a broad range of U.S. Government titles. Indeed, many are limited-run, special interest publications that would not meet the qualifications for inclusion in commercial sales programs. The Sales Program currently offers for public sale approximately 10,000 government information products on a wide array of subjects. The program operates on a cost recovery basis without the use of tax dollars.

Publications for sale include books, forms, posters, pamphlets, and maps. Subscription services for both dated periodicals and basic-and-supplement services, involving an initial volume and supplemental issues, are also offered. A growing selection of electronic information products, including CD-ROMS,

computer disks, and magnetic tapes are now available through the sales program.

**SLIDE 26**

In fiscal year 1997 our yearly sales topped \$70 million with approximately 12,000,000 copies of tangible products sold. In excess of one million orders were handled, for a wide variety of publications.

**SLIDES 27 & 28**

Some of our best sellers are listed on these slides.

As you are all well aware, Washington was, and continues to be, abuzz, over the releases of the Independent Counsel's materials, also known as the "Starr reports." GPO was tasked with producing the information for dissemination to the House Judiciary Committee, the Congress and the public. Our Sales Program reported brisk business for the reports, especially in the bookstores.

**SLIDE 29**

This slide provides some of the sales statistics.

In fact, when the first of the reports was released, the GPO Main Bookstore was opened on Saturday, September 12 from noon until 4 p.m.; an unheard of event, but nonetheless successful. On that day, we sold 306 copies to 194 customers and attracted local and national news media. When the store opened that day at noon, the line of people stretched to the corner of the building, with foot traffic until closing time.

**Title 44 Revision**

Last, but certainly not least, another area of concern within GPO during the just-ended 105<sup>th</sup> Congress was the review of Title 44 by the Joint Committee on Printing (JCP) and Senate Rules Committee. Until the last day of the Congressional session, they were working on proposals for revision of our authorizing legislation.

Let me provide a very brief history if I might -- in July, S. 2288, the Wendell H. Ford Government Publications Act of 1998 was introduced in the Senate. It called for the reform of the legislative oversight, production, procurement, dissemination, and permanent public access of the Government's publications. It was the product of over a year's discussions between the committee staff, representatives of the major library organizations, GPO and other interested stakeholders.

GPO had encouraged legislative reform to address the constitutional separation of powers issues that have been raised between the JCP and the Executive Branch, while recognizing the unique role that GPO and the Superintendent of Documents play in the printing, production, and dissemination of Government information.

We requested specific language that:

**SLIDE 30**

- 1) clearly put electronic information within the scope of the FDLP;
- 2) clearly gave the Superintendent of Documents the responsibility to ensure a coordinated permanent public access to government information products;

**SLIDE 31**

- 3) required agencies to notify the Superintendent of Documents about their products when they were created, changed or eliminated for the purposes of bibliographic control, the FDLP and the Sales Program;
- 4) gave the Public Printer and the Superintendent of Documents more flexibility in the operation of the FDLP and the Sales Program.

**SLIDES 32 & 33**

The proposed bill would have remedied any constitutional issues by downloading administrative responsibilities from the JCP to the Public Printer, who would have been called the Administrator and who would have exercised them as a presidential appointee. It reinforced the centralization of printing and printing procurement through GPO and required a plan to reduce agency printing as well as required a review of agency waivers from the printing requirements of Title 44. It clarified the inclusion of government information in electronic mediums as part of the FDLP. It provided an enforcement mechanism to ensure publications were included in the depository program by authorizing the Superintendent of Documents to reprint fugitive publications and charge the cost to the issuing agency through the Treasury Department. It would have elevated the stature of the Superintendent of Documents position to a Presidential appointment and provided the Superintendent of Documents with the authority to issue regulations to operate and modernize the depository program, and provided more flexibility to the sales program in terms of pricing and discounts.

But in the waning hours of the 105<sup>th</sup> Congress, controversy over various aspects of the bill made passage impossible.

With so many political pundits still making predictions on what the 106<sup>th</sup> Congress will look like and what the Members will work on, I cannot make any predictions on whether there will be a move to reform Title 44. The crystal ball I was issued when I came to Washington is too cloudy.

**Conclusion**

We, at GPO, are confronted with many challenges as we try to implement our mission and philosophy, and indeed statutory charge, for public access to government information. We are committed to providing access to as complete a collection as possible of public tangible and electronic government information

products via the Federal Depository Library Program, the GPO Sales Program and GPO Access. We want and need the cooperation of all the information producing agencies of the government if we are to meet the needs of the public.

**SLIDES 34 & 35**

A few months ago, a depository librarian shared this quote on a government documents listserv:

"In view of the fact that, so far as known, no library in the United States, neither the Library of Congress, that of any State or Territory, nor any other public library, contains a complete set of the public documents of the General Government, it may be regarded as unfortunate that the provisions of the law are not availed of to the fullest extent. Fifty years hence it should not be as difficult for the student to find all the public documents of the present as it is for an investigator to-day to discover the records of a half-century ago."

As you can see, this quote is not from the present day, rather it was found in an 1876 special report titled: Public Libraries in the United States of America, their History, Condition and Management, from the U.S. Department of the Interior, Bureau of Education, Part 1.

The sender of this message, John Shuler, a well-known figure in the depository community at the University of Illinois-Chicago added that, "even back then, the impossible dream of creating a publicly managed, well-executed, centralized distribution system for federal publications haunted our profession's vision." When Mike DiMario asked me to be the Superintendent of Documents last year, he said he wanted me to serve as a spokesperson for "public access to government information products. I could not ask for a better job. I am working with GPO's dedicated staff, agency publishers and colleagues in the library community to develop and evolve systems so that citizens are assured of finding access to "all public documents" now and in the future.

**SLIDE 36**

I would like to show one more slide, which you have in the handout -- the relatively new Superintendent of Documents homepage. I hope you have a chance to take a look at it. Comments are always welcome.

Thank you very much. Do you have any questions for me now?

6/5/00 10:32 AM

**FEDLINK Update**  
**Ms. Susan Tarr, FLICC**

**SLIDES ONLY**



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FILICC/FEDLINK Update



# Military Librarians Workshop

## November 19, 1998



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**FEDLINK Mission Statement.**

- To serve federal libraries  
and information centers as  
their purchasing , training  
and resource-sharing  
consortium**



**FILICC Mission Statement.**


- **To foster excellence in federal library and information services through interagency cooperation and to provide guidance and direction for the Federal Library and Information Network (FEDLINK)**

## **FLICC Activities:**

- **Annual Awards**
- **LC Bicentennial**
- **IT Assessment**
- **Librarian KSAs**
- **Videotape Program**
- **FLICC Forum on Copyright**
- **General Counsels Forum**
- **FEDLINK**


  


## Annual Awards

- **Based on Fiscal Year performance**
  - **Due date for nominations: Nov. 15**
  - **Federal Librarian of the Year**
  - **Fed. Library Technician of the Year**
  - **Federal Library/Information Center  
of the Year**
- 



## LC Bicentennial

- **Federal Library Poster, Bookmarks and Toolkit**
  - **Register of Federal Library Treasures and Digitization Competition**
  - **Federal Library/Information Centers Almanac-on-the-Web**
- 

## IT Assessment

- **Examine your own IT environment**
- **Compare your environment to others**
- **Ultimately: Produce a govt.-wide picture of IT, continuously updated**
- **Promotional drawing: 12/31 deadline**
- **Reinvention Express coverage?**
- **Additional reports**


## KSAs for Librarian Positions

- **Public Librarians-- done**
- **Systems Librarians-- done**
- **Upcoming: Cataloging, Acquisitions and Administrative Librarians**
- **FLICC website:  
<http://lcweb.loc.gov/flicc>, click on "About FLICC", "working groups", "Personnel", "initiatives"**







## Videotape Program

- **New videocamera**
  - **New microphones**
  - **New lights**
  - **New editing software**
  - **New improved videotapes of FLICC education programs!**
- 


- **Digital Copyright Laws and Practice**
  - **March 10, 1999**
  - **Keynote: Pat Schroeder**
  - **Also: Copyright Register Marybeth Peters, Bob Oakley, Trotter Hardy, Laura Gassaway, others**
  - **Bonus: Annual Awards!**
- 
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## General Counsels Forum

- **Tentative: February 11, 1999**
- **Library Directors and Agency GCs**
- **First focus: Copyright and Fair Use specific questions (CENDI paper)**
- **Future topics: Interagency agreements, consortium purchasing, surplus materials, electronic records management**

FEDLINK

- **Fee reduction**
- **Streamlining**
- **Customer service**
- **Contracts leadership**

## FEDLINK FEES

- **Transfer Pay fee reduced**
- **7.75% on accounts up to \$300K**
- **7% on amounts over \$300K in a single account**
- **FEDLINK move back to Capitol Hill**
- **No change in Direct Pay fees**

## FEDLINK Streamlining

- **No FEDLINK review of Direct Pay orders under \$100K: after IAG signed, FEDLINK authorizes vendor**
- **Expedited money moves between accounts: Member checks first, then vendor given 3 days for FEDLINK double-check**


## Customer Service

- **Web survey: Fill it out!**
- **FEDLINK 1998 Spring Membership Meeting Discussion**
- **Focus group on 10/22/98**
- **MLW focus group feedback on 11/16**
- **Watch for report in TechNotes and on Web**

## New LLC Contracts Leadership

- **Debra Murphy, chief, from DoD**
- **Joan McCoy, new FEDLINK head**
  - with FEDLINK since 1989
  - formerly senior contracts specialist



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# Questions?



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## Service Reports: Air Force Libraries

By

Barbara D. Wrinkle  
Director  
Air Force Library and Information System

Every year, when I write this report, I like to find a theme that represents what the Air Force Library and Information System underwent during the previous year. For this year, a quote by Bert Roberts, Chairman and CEO of MCI, accurately illustrates 1998:

*"We run like mad and then we change direction."*

With the help of all our librarians, MAJCOM colleagues, and my staff, the Air Force has been able to accomplish a number of significant projects while running and changing direction.

We developed and published the Golden Eagle Standards for Air Force Libraries. This document allows library directors and their staffs, as well as their supervisors to identify what are the minimal levels of performance necessary to run an Air Force general library. Many of the elements also apply to academic and technical libraries.

Alison Tucker once stated, "**Communications is human nature; knowledge is human nurture!**" Our libraries have been working very hard to provide the knowledge when and where it is needed.

In library technology, we supported this by working on a number of initiatives:

We designed a worldwide web page at <http://www-p.afsv.af.mil/aflis/default.htm>. It not only contains our Golden Eagle Standards, but a directory of Air Force libraries, a calendar of events, a constantly updated page of library and military links, as well as procurement, automation, training and other resources to assist library directors and their staffs.

You have already heard about the consortium of Air Force Research Laboratory Libraries in the development of their virtual library earlier this week so I will not discuss today.

We completed the upgrading of all 85 of our CD-ROM LANS to the Air Force standard Windows NT Server 4.0 software. In FY99, we will be adding extra DVD-ROM drives and extra hard drive storage space to each of them.

On the Internet front, we are working on a centralized Internet Service Provider contract so we can provide consistent, reliable Internet access to our customers. This Internet Infrastructure Initiative or "I<sup>3</sup>" will utilize the existing CD-ROM network already in place in our libraries and eliminate the security risks inherent in providing unlimited "af.mil" access to library customers.

The Pacific Area Library System (PALS) installed Internet nodes at Kadena and Yokota to provide access for all PACOM libraries. Other libraries are using other sources for Internet until we can resolve the Internet crisis in Air Force libraries.

We released a new version of our Library Annual Reporting Program (LARP) which gives our libraries point-and-click access to their statistics and 5-year trend analyses of library productivity.

We also worked on the development of our Library Electronic Ordering System (LEOS) which will allow our libraries to identify a need for materials – and then leave it in the hand of LEOS – which will then find the best source for the materials and place the order. Once completed, LEOS will dramatically reduce the amount of time (and paper) involved in the AF library central procurement process.

Our central procurement program continues to yield significant savings – in FY98, we saved \$1.3 million – that's an average of approximately 25% -- above and beyond any savings libraries could achieve by ordering these materials individually.

During the year, we continued our core collection initiatives. We completed the core reference collection and expanded it to include professional reference titles for library staffs. We also updated our core collection of periodical articles to support the Air Command and Staff College program.

With everything changing at breakneck speeds, training is an absolute necessity, in order to keep up.

In June, we hosted a Library Managers Course in San Antonio. During their two-week course, these librarians were exposed to not only the Air Force library program, but also to the "Air Force culture" on their installation. For three days prior to the ALA conference, over 80 Air Force librarians attended the Air Force Librarians Workshop in Alexandria Virginia. Our librarians were challenged starting with the keynote speech by Will Manley, concluding with the wrap-up challenge by Dr. Dale Henry -- and in-between sessions on new library technologies and resources, DTIC resources, the benefits of conducting an information audit, an excellent session on performance management. In all of these sessions, the networking was a key element.

For recurring training staff, we developed training aids (downloadable from our WWW page) to help explain how the Air Force library program supports the Air Force mission,

education, and quality of life programs. Other training aids discuss the importance of quality customer service and a solid marketing and public relations plan.

A course for Quality Assurance Evaluators (QAEs) was developed to train contract evaluators about library operations and procedures. In many cases the appointed QAEs have neither library knowledge nor expertise. Our first class is scheduled for Jan 99.

Our libraries also received several computer based training titles to assist in training their staffs in running their networks, and also some "how to" training for library staff and customers in the latest Microsoft Office suite of programs.

Outsourcing, or should I say, "competitive sourcing" continues in the Air Force Library and Information System. To date, 20 general libraries have been outsourced since Apr 97. More libraries are being considered during FY99. It is important for us to form a strong partnership/alliance with our new librarians and their staffs.

In Air Force Space Command, a multi-wing A-76 study for the operation of five general libraries is still "on the street," with potential award scheduled for January. This multi-wing study utilizes new guidance from the Air Force on outsourcing – the performance-based service contract. The PBSC, as it come to be know, shifts the focus of a performance work statement from "how" something is to be as to "what" is to be done – and includes performance measurements. This approach significantly streamlines the paperwork involved. The Air Force standardized Performance Work Statement template is being revised to reflect the new guidance. The release is scheduled for Dec 98.

Teaming up with the Air Force Center for Quality Management Innovation, we developed a Most Efficient Organization, or MEO, template. This tool helps libraries prepare a MEO document for A-76 studies.

Thanks to congressional attention, the threat to close libraries has subsided for the time being. Let's hope this will continue.

My assistant, Margie Buchanan, served on a base assessment team. She was able to visit 7 Air Force bases around the world from Guam to England.

I'm sad to report that our Air Force Space Command Librarian, Judy Hawthorne, suffered a brain aneurysm in October. Fortunately, she is making an incredible recovery. She wanted to be here with us, but her doctors want her to continue rehabilitation.

We worked with the OSD Joint Library Forum to improve libraries across DOD. We've worked on and are close to releasing a DOD Strategic Plan for Libraries, DOD Standards for Libraries, as well as a DOD Library Facility Survey.

Finally, let me take this opportunity to say thank you to all the librarians and their staffs who have worked tirelessly amidst all the chaos around them. Their commitment to effectiveness and customer service is a tribute to their professionalism. As Jerry Garcia of the Grateful Dead said:

***"You do not merely want to be considered just the best of the best. You want to be considered the only ones who do what you do."***

## **PROCUREMENT OF ELECTRONIC SERVICES FOR THE DIGITAL LIBRARY**

### **NOTE:**

**Mr. Tom Rohmiller, Wright Laboratory, was not able to give his presentation. However, he graciously provided his prepared slides for inclusion in the printed proceedings.**

**Ms. Kathy Wright, SPAWAR Systems Center, filled in for Mr. Rohmiller with her presentation on the Consortium of Navy Libraries Procurement Project.**

**SLIDES ONLY**

# Distributing Costs to End-users

Presented to  
**42nd Military Librarians Workshop**  
November 1998

**Tom Rohmiller**  
Library Team Coordinator  
AFRL Wright Research Site



# Overview

- Why chargebacks
- How we do it good
  - Accounts
  - Commitments
  - Assessments
- Examples





# Why Chargebacks

- Establish value
  - price connotes value
- Establish demand
  - accounts enable tracking
- Follow orders
  - Fee for service
  - Activity based costing

# How we do it--

## Accounts

- Establish separate accounts for each TD
  - one to one correspondence
  - Library acts as agent
    - Service goal to provide range from mediated to DIY
    - Select “best value” services from options
  - Library controls accounts and passwords
  - Passwords optional
  - IP filtering possible



# How we do it-- Commitments

- Library presents options to Technical Directorates
  - 5 directorates on one site
  - coordinated through Site Operations Council
- Tech Directorates select from range of options
  - all 5 signed on for FY99

# How we do it --

## Assessments

- Track expenses through the year
- Estimate next year's use
- Apportion fees by historical patterns
  - No real surprises
- Receive money through
  - AF 185 (project purchase agreement)
  - MIPR



# Examples

- **UnCover**
  - Master account SPMXX
  - AFRL/ML SPMXX01
  - AFRL/SN SPMXX02
- **DIALOG**
  - Master user account
    - up to 100 subaccounts
  - tracked through DialogLink software as well as monthly detailed invoices

# Consortium of Navy Libraries Procurement Project

281

Kathy Wright  
SPAWAR Systems Center  
San Diego, CA

# CNL Vision

---

- "To provide world class information access and services to the Navy, ashore and afloat, and be the Department of Defense leader in virtual library development."

# Procurement Project Goals

- Leverage purchasing through consolidation
- Streamline acquisitions, licensing
- Equalize information have, have not



# Project Status

- 5 Navy sites
- Procurement through SPAWAR Contracts
- Completion by 1 Oct. 98

# Project Resources

- COMPENDEX
- ComputerSelect Web
- Jane's Defence Weekly
- UMI:
  - ABI Global
  - ProQuest Computing, Telecommunications

## Resources (cont'd)

- OCLC First Search:
  - OCLC Collection
  - Books in Print
  - INSPEC

Project Savings

**\$150,000 for 5 sites!**

# Project Future

- Add more sites
- Add more content
- Work with Navy CIO
- Place resources on ITEC
- Evaluate usage

Procurement of Electronic Services  
for the Digital Library

# ***Licensing***

***Meg Williams***

FEDLINK Network Program Specialist

FLICC, Library of Congress

Military Librarians Workshop, November 19, 1998

# What's Causing the Fuss?

■ We're having to really deal with the concept of information as *property* -

■ Intangible

■ Personal

■ Property

# Oppositions

- **Owners**
  - Creativity, effort, expense
  - Potential revenue
  - Shift risks
- **Potential Thieves**
  - Technology-enabled
  - Free-for-all attitude
  - Shift risks
- **Copyright Law**
  - Federal
  - Spelled out in statute
    - protected works
    - protected acts/uses
  - Relatively hard to prove infringement & overcome defenses
- **Contract Law**
  - State
  - Parties agree on
    - what to protect
    - what to allow/forbid
  - Relatively easy to prove breach of contract



# Oppositions

- **Federal environment** ■ **Everything else**
  - Usually federal courts, federal law & rules
  - US as the sovereign
  - Strict accountability for process
- **Librarians** ■ **Contracting Officers & Counsel**
  - Get the publication
  - Pay less
  - Enable library operations
  - Safeguard user rights
  - Protect self, agency & Govt
- US as any other party (almost)
- Regular commercial practices
- Protect agency & Govt
- Pay less
- Protect future / precedent
- Protect self, signature

# FLICC/FEDLINK

## Licensing Project Goals

- Reduce duplication of effort among agencies
- Promote uniformity & fairness
- Reduce likelihood of litigation
- Promote interests of users & libraries

# Development Process

- FEDLINK staff & LC Office
- Member input
- of General Counsel
  - FLICC IT Working Group
    - Licensing subgroup
    - Consortial Pilot subgroup
  - Other briefings
- Studied licensing resources
- Vendor input
  - FY99 BOA renewal negotiations
  - RFP 99-1 for Information Retrieval Services
- Reviewed licenses from all FEDLINK vendors
- Noted problem terms
- Identified contracting officer concerns
- Studied licensing resources
  - Liblicense, etc.
- Crafted alternative language

# Baseline License

- Baseline for negotiations -  
not intended to cover everything
- What's left out is as important as what's in
- Addresses "legal" terms & "library" terms
- Will be distributed via FLICC website

# "Legal" Terms

- Jargon, boilerplate
  - Seem esoteric, unlikely to ever really matter
  - *Red* flags for your attorneys
  - Deal breakers
- Clauses that could:
  - Weaken our status as the Federal Government
  - Tie our hands
  - Risk federal funds
  - Conflict with federal laws & regulations

# Problems

## Weaken Our Status

- Identification of parties
- Authorized signatures
- Entire agreement
- Governing law & courts

## Tie Our Hands

- Warranties & disclaimers
- Responsibility for actions of third parties
- Derivative products - ownership, liability
- Handling changes & disputes
- Contract termination
- Confidentiality

# Problems

## Risk Federal Funds

- License period - automatic renewals
- Payment schedules & interest penalties
- Indemnities
- Attorney fees
- Other penalties for breach

## Conflict with Fed Law

- Anti-Deficiency Act
- Prompt Payment Act
- FAR Clauses
- Copyright Law
- Freedom of Information Act
- And so on ...

# "Library" Terms

- Vendor's recipe for the relationship
  - May seem unimportant to your Govt colleagues
    - or overly important to librarians
  - Librarians risk making assumptions
- Clauses that could:
  - Restrict access in ways that are undesirable or technically unfeasible
  - Waive current rights of libraries & users
  - Undermine traditional library principles
  - Create administrative burdens



# Problems

## Restrict Access

- By status
  - Staff, contractors, patrons
- By location
  - Building, remote sites
  - In the library, at desktop
- By technology
  - IP address, workstation

## Waive Current Rights

- Copyright
  - §107 fair use
  - §108 library archiving
  - First sale doctrine - lending
  - CONTU guidelines

# Problems

## Undermine Principles

- Resource sharing, ILL
- Cost-free access
- All resources available to all patrons
- Privacy, confidentiality

## Create Admin Burdens

- Clarifying definitions after the fact
- Monitoring
  - Technological & human
- Reporting
- Being consistent with all vendors
- Updates, changes, renewals, terminations, etc.

# Pricing Terms

- Contracting officers negotiate price.
  - No one else. Period.
  
- What is the total amount to be paid?
  - Is it reasonable?
  - Is it acceptable to your library?
    - Reflect the publication's value to your users?
    - In proportion with the cost of similar pubs?

# Pricing Terms

- Does the pricing formula create unfairness?
  - Overstate or understate usage?
  - Lock in increases next year?
  - Have hidden costs?
- Licensed uses will affect price
  - Are you paying for things you don't need or want?
  - Are you willing to pay for something extra?
- Allocation of risks will affect price

# Quick Fixes

- **Involve the right people**
  - Contracting officers & counsel
- **Agree to license how you'll use the product**
  - Not your entire relationship with the vendor
- **Take exception**
  - Cross out sections before signing
- **Incorporate federal law**
  - "In the event of any conflict between terms of this agreement & applicable federal law, federal law will govern."
  - "... state or federal courts in the state of XX ..."
- **Use the word "reasonable" & be reasonable**
  - Watch out for absolutes: any, all, always, never, best, strict, ...

# Questions?

■ Meg Williams, Network Program Specialist

■ FLICC/FEDLINK

Library of Congress

101 Independence Ave., SE

Washington, DC 20540-4935

■ (202) 707-4838

■ [mwil@loc.gov](mailto:mwil@loc.gov)

■ [lcweb.loc.gov/flicc](http://lcweb.loc.gov/flicc)

**PROCUREMENT OF ELECTRONIC SERVICES FOR THE  
DIGITAL LIBRARY**

**Ms. Sarah Mikel, National Defense University**

**SLIDES ONLY**

# PROCUREMENT OF ELECTRONIC RESOURCES - DIGITAL LIBRARY

- Procurement is more than a purchase order or a credit card
- Procurement involves evaluation and competitive pricing
- The goal: To provide the library patron with the best product at the best price





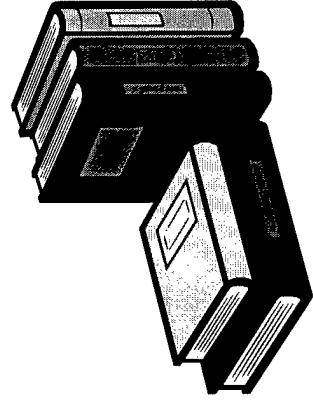
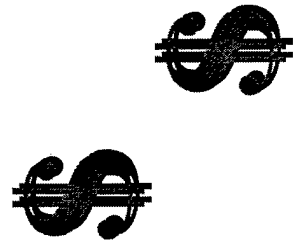
# LIBRARIES & ELECTRONIC INFORMATION

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LIBRARIES CANNOT AFFORD  
TO PURCHASE ELECTRONIC  
INFORMATION THAT DOES NOT  
HAVE PROVEN VALUE

# LIBRARIES AND CONSORTIUM

RESOURCE SHARING  
COST SAVINGS



# 1998 Library Survey

## Online Resources

Which online resources did you use most? Percent responding 3 or more times:

Students		Faculty		Staff	
94%	ProQuest Direct	96%	Electronic Journals	100%	NDU-IQ
92%	NDU-IQ	87%	NDU-IQ	100%	Power Pages (ProQuest)
89%	Library Internet/Intranet	85%	Library Internet/Intranet	100%	Electronic Journals
85%	Electronic Journals	73%	ProQuest Direct	100%	Library Internet/Intranet
77%	First Search	65%	First Search	75%	First Search
67%	GPO Access/StatUSA	58%	GPO Access/StatUSA	0%	GPO Access/StatUSA

Which online resources were most valuable? Percent responding Valuable or Very Valuable:

Students		Faculty		Staff	
97%	ProQuest Direct	92%	Electronic Journals	100%	NDU-IQ
96%	NDU-IQ	90%	NDU-IQ	100%	Power Pages (ProQuest)
94%	Library Internet/Intranet	90%	ProQuest Direct	100%	Library Internet/Intranet
90%	Electronic Journals	88%	Library Internet/Intranet	86%	Electronic Journals
86%	First Search	82%	First Search	75%	First Search
62%	GPO Access/StatUSA	57%	GPO Access/StatUSA	0%	GPO Access/StatUSA

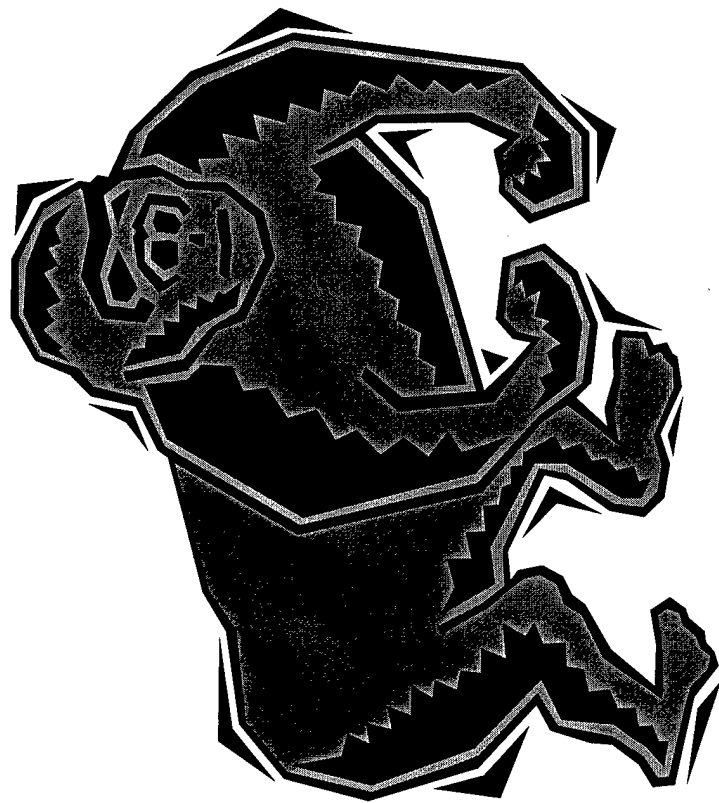
# 1998 Library Survey Opinion Survey - Electronic Journals

Increasing the number of electronic journals and decreasing the number of paper journals would be advantageous to me.

Totals	Opinion	ICAF	INSS	IRMC	NWC	STAFF
58	Strongly Agree	24%	29%	10%	26%	17%
56	Agree	26%	0%	20%	23%	17%
74	Neutral	28%	43%	40%	31%	0%
39	Disagree	16%	14%	20%	13%	33%
14	Strongly Disagree	4%	14%	5%	5%	17%
12	No Answer	2%	0%	5%	5%	17%

- Majority of users want more electronic access to journal contents.
- Reasons: Ease of remote access, text search, multiple access points, printing, etc.
- Users prefer hardcopy for browsing and reading; electronic copy is preferred for research.
- Majority of users want a core collection maintained in hardcopy.
- Equipment availability and printing capability are essential in an electronic journal environment.

# BECOMING AN 800-POUND GORILLA



- Individual libraries grow in strength and size by joining a consortium
- Services and resource sharing increase
- Communication and control increase

# MECC LIBRARIES

- AIR UNIVERSITY • MARINE CORPS
- ARMED FORCES UNIVERSITY
- STAFF COLLEGE • NATIONAL DEFENSE UNIVERSITY
- ARMY WAR COLLEGE • NAVAL WAR COLLEGE
- COMMAND AND GENERAL STAFF COLLEGE • NAVAL POSTGRADUATE SCHOOL

# SITRESEARCH

- Z39.50 SERVER - CONNECTIONS TO DATABASE SERVERS AND SUPPORTS THE Z39.50 PROTOCOL
- IMAGE SUPPORT PACKAGE - ELECTRONIC IMAGE CAPABILITY
- WEBZ SERVER-BROWSE ACCESS TO LOCAL, OCLC, SITRESEARCH OR ANY Z39.50 REMOTE DATABASE

# ADVANTAGES OF CONSORTIUM PURCHASING

- LEVERAGING LIBRARY FUNDS TO  
GET THE BEST SERVICES FOR THE  
BEST PRICE
- RAISING THE LEVEL OF ELECTRONIC  
ACCESS FOR ALL CONSORTIUM  
MEMBERS
- NO SINGLE LIBRARY CAN BE ALL  
THINGS TO ALL PEOPLE



# NEW & PROPOSED MEMBERS

- US Air Force Academy
- US Coast Guard Academy
- US Military Academy
- US Naval Academy
- Special Operations Command
- Asia-Pacific Center
- Marshall Center
- Europe



## Procurement of Electronic Resources for the Digital Library

When asked to participate on this panel I looked into my own experience with the procurement of electronic information for digital libraries and I synthesized it into two aspects. SLIDE #1

The first as an individual library with a fixed budget introducing electronic information to the customers. And the second experience was as a member library in a consortium.

### SLIDE #2

The first experience is intended to support the premise that SLIDE:  
LIBRARIES CANNOT AFFORD TO PURCHASE ELECTRONIC  
INFORMATION THAT IS NOT OF PROVEN VALUE.

Once a library knows that it is its destiny to purchase electronic services and develop a digital library and knows the products its customers need the librarian looks for the best prices for the products. Because make no mistake electronic services will cost you dearly. For example, you will undoubtedly provide duplicate copies of journals in paper and electronically, you will require more, faster and powerful computers and workstations, you will be torn about how much of your limited budget to allocate for electronic and paper and you'll probably find yourself funding the electronic from funds originally intended for more traditional information formats.

First I will discuss the individual library purchase of ejournals. The onset of electronic services, esp. via the web, has proliferated in the last two/three years. Many libraries have moved away from heavy reliance on papercopy and CD-ROMS and have begun to access websites for their electronic journals, references materials, abstracts, newspapers, etc. This has presented librarians with decisions about which products are the best for their customers, how much of the budget should be expended on electronic products vs. papercopy. These issues are not new; librarians have always been faced with deciding what is the best product for the customer with the funds available. What is new is the way the information is now presented in electronic form. This has implications for its usage by patrons.

Depending on the subject area of your library's collection the electronic products available are well defined. Scientific, medical and technical libraries seem to have the widest array of electronic services from which to chose. I am in a library that focuses on the social sciences – history, economics, political science, foreign affairs, and military history. There are specific electronic products that focus on these areas- PQD, JSTOR, Muse, CIAO, EBSCONET, OCLC ECO, et al. Initially the librarian takes a calculated risk in introducing ejournals. It is new and the patrons are not entirely used to accessing their favorite journal online. This is a departure from the old way of satisfying the customer's need. With paper we received a journal, checked it in, property-stamped it and placed it on display shelves. The customer walked in picked it up and read it. NO LONGER – we now must train the patron to access the materials. And since there are many products available the patron is overwhelmed and needs extensive training to know where to go for what he/she needs. Hence the newly developing role of the reference librarian as teacher. At our library we offer classes 5 days a week 2-3 times per day, an average class lasts 1 hr. and we fill every class and do this for the entire first semester. Without the classes the patron would not use the electronic products or use them with a certain level of frustration that could result in not using it. The training classes are part of our selection process of electronic information because we have trained users they can make valid assessments of the products.

#### SLIDE#3 and #4 Surveys

I've found that "User Evaluations" are the most sure-fire means of spending your money wisely and satisfying your customer. This takes all the risk out of purchasing electronic services because your customer tells you if it meets the need. I can't emphasize enough the importance of a well-trained patron. They know and use the product; therefore, their assessment has validity. We survey the entire user population – students and faculty at the end of the academic year on every aspect of the library –customer service, hours of operation and electronic products. We list them separately and ask them to rate how often they use them and how much value they have to their information needs.

The results tell us if we made a good purchase and if it should be renewed. The survey mechanism is an excellent management tool and a helpful selection tool. (Discuss results on two slides.)

Once you have ascertained the value of ejournals to your customers it is in your best interest to find the most cost savings means of providing them. The current trend is toward consortium purchasing.

SLIDE #5

And this leads to the second experience I've had with purchasing ejournals.

SLIDE #6 Gorilla (comment on Slide's message)

To provide background on my consortium - In 1996 the MECC LWG

SLIDE #7

(define and members - use slide) conducted an automation survey. The survey results showed much commonality among the libraries. All sites had a campus network, an integrated library system, Z39.50 capability, Internet access and home pages and shared many of the same electronic/CD-ROM products. The components for interconnectivity and resource sharing among the libraries were in place.

The next step was easy in an environment of proliferating Internet usage and development of software like the OCLC SiteSearch. To refresh your memories on the software - SLIDE #8 - SiteSearch components.

The goal of the member libraries in order of accomplishment was first to link their online catalogs, second to put up local databases and last purchase electronic services as a consortium and provide access through the website.

It is the last that has caused the most difficulty. To reach consensus with 13 libraries where there is no central funding, widespread geographic locations and long-standing methods of procurement is a challenge. A key to successful consortium purchasing is a commitment to the common good and the sublimation of individual library's agendas and the courage of library leaders to take a chance and commit resources in a new way. But without consensus there is no purchasing. The motivation for consortium purchasing is distinctly different from the reasons for consortium. As a consortium the MECC Library Group is successful. It put up a website (URL), it shares resources, is developing an unmediated ILL project, meets regularly and

exchanges information and all members agree that consortium purchasing is an excellent thing.

SLIDE#9

- Leveraging library funds to get the best services for the best price
- Raising the level of electronic access for all consortium members
- No library can be all things to all people

All members readily acknowledge the worth of these, but achieving consensus has eluded the group to date. I'll reiterate some of the key drivers to making a consortium purchasing mechanism work. The members must have a commitment to collaboration. Library directors must not be afraid to act and commit resources. It is essential that there be a selfless shared mission that permits no one library's agenda from dominating – all must be sublimated to the common good.

The obstacles encountered:

1. Local consortium offer better prices
2. Some electronic services are centrally purchased by a command and provided to the library for free
3. Not all members can agree on what products to purchase, which skews the vendors offer.
4. Vendors are in flux regarding pricing models

The vendors we have worked with have been accommodating and helpful. The prices and services are appropriate, but have not been judged universally acceptable by all members. What has occurred is rather than make a single purchase through the consortium account we established at FEDLINK individual libraries have taken advantage of vendor offers at the discount price.

SLIDE #10

We are working these issues, but we are not there yet. We are growing in membership and working our issues. There are many illustrious academic models to follow – CIC, ALADDIN, GALILEO, in acquiring electronic resources through consortium purchase, we have many interested vendors and at our most recent meeting (relate outcome of 18 Nov. MECC Meeting)

*Procurement of Electronic  
Resources is*

*DRIVING*

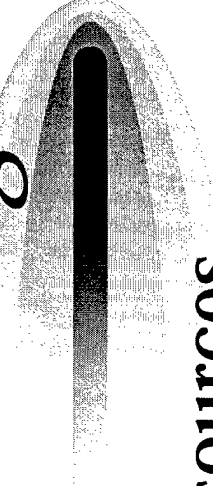
**CHANGE**



Military Librarian's Workshop,  
November 19, 1998

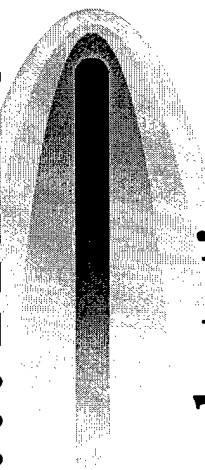
Layne Huseth  
Naval Postgraduate School  
Monterey

# *Changes*



- Evaluation and Selection of Resources
- Training
- User Expectations
- Equipment
- Services
- Budget & Organization Structure
- Archive VS Retention

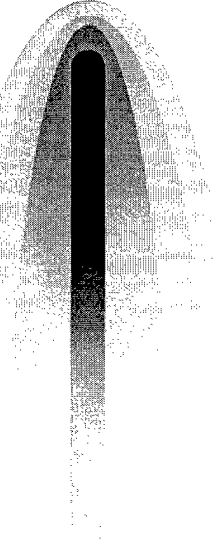
**... THEN**



- **One CD-ROM Stand-alone Workstation**
- **Mainframe ILS (NOTIS)**
- **No Internet Access**
- **No Connection to Campus Network**
- **3 Reference Librarians - 18 Professionals**
- **1200 Baud Modem - Dialog**

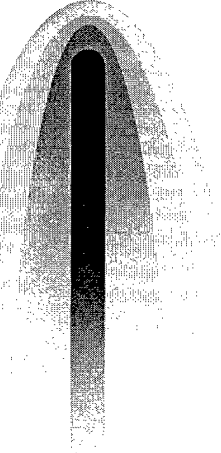


*... Still Then*



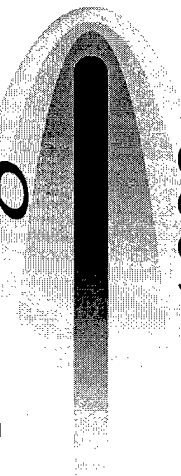
- 84% Budget - Print
- 9% Budget - On-line tools
- 2% Budget - Electronic Resources
- 15% of students could use a computer
- “Insular” environment
- Acquisition = Access

***NOW***



- **Electronic Resources Room**
  - **10+ WEB Resources**
  - **70+ Stand-alone CD-ROM (15 active)**
- **Library WEB Page Links**
- **Consortia Membership**
- **Staff**
- **Budget**

# *Resource Changes*



## Electronic Resources                      1994                      1998

E. R. Facility	NO	YES
Stand-alone CD-ROM	1	12+
INTERNET Access	NO	YES
WEB Resources	NO	YES
WEB LINKS	NO	YES

# Staff Changes

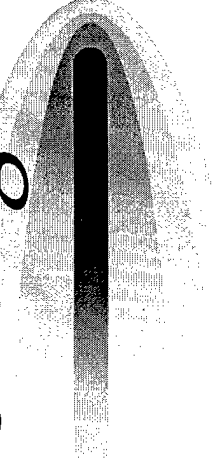
<u>Staffing</u>	<u>1994</u>	<u>1998</u>
Total (FTE)	36	30
Professional	18	16
Technician	15	10
Other	3	4

# *Strategic Planning*



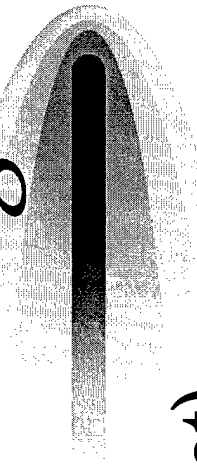
- Process started in 1995
- “Meeting and Exceeding User Needs”
- 1998 Functional Reorganization
  - January, 1999
  - New positions
  - New Hires
- Functional Process Analysis

# *Staff Changes*



- **New positions**
  - **Administration & Systems**
  - **Expanded services to support users**
    - **Instruction**
    - **Reference Assistance**
    - **WEB**
    - **Document Delivery**
- **New Organizational titles**

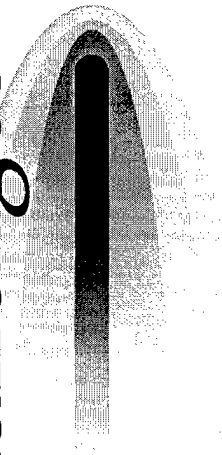
# Budget Changes



## Expenditures (% of Material Budget)

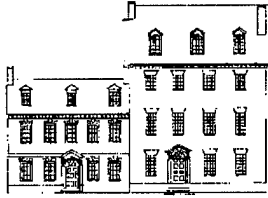
	<u>1994</u>	<u>1998</u>
Electronic Resources	2 %	16 %
Monographs	18 %	26 %
Periodicals	71 %	55 %
DIALOG	9 %	3 %

# Challenges



- **Print to Electronic Formats**
  - 50% by 2003
  - Flexible Selection and Evaluation Processes
  - Provide archive access to electronic formats
  - ILS replacement
  - Support for Distance Learning
  - Document delivery





## **Military Librarians Workshop '98**

42<sup>nd</sup> Annual Military Librarians Workshop

17-19 November 1998

Ramada Plaza Hotel

Old Town Alexandria, VA

### **AGENDA**

#### **MONDAY, 16 November 1998**

**8:00 a.m.- 5:00 p.m.**

**NAVY SERVICE MEETING**

**Ramsay**

**8:00 a.m.- 5:00 p.m.**

**AIR FORCE SERVICE MEETING**

**Suite 1226**

**8:30 a.m.- 4:00 p.m.**

**BASIC ACQUISITION OF LIBRARY MATERIALS (FEDLINK- SPONSORED)**

**Cameron- East**

The responsibility of library acquisitions personnel is to obtain books, serials, electronic, and other informational materials needed by their libraries at the best price with the best service and in the most efficient processing of materials by the library. In this class we will communicate the basic information needed to provide the skills necessary for you to acquire and process these materials for your libraries in the fastest possible time with the least possible cost. This will include a study of the publishing trade, principles of library acquisitions as well as the responsibilities of both the vendor and the library.

The class participant will learn how to choose vendors through the analysis of the services and products available from each vendor and to evaluate the service vendors have provided to them for mainstream types of materials such as all categories of books and serials, CD-ROM, etc.). They will also learn about non-mainstream applications of acquisition principles, such as: back issue dealers, out-of-print vendors, alternative methods of acquisition and grey materials.

**1:00- 5:00 p.m.**

**ARMY SERVICE MEETING**

**Cameron- West**

**1:00- 6:00 p.m.**

**REGISTRATION**

**Conference Center Foyer**

**2:00- 4:00 p.m.**

**MLD BOARD MEETING**

**Fairfax-South**

**4:00-6:00 p.m.**

**MLW EXECUTIVE BOARD MEETING**

**Fairfax-South**

**5:00-7:00 p.m.**

**RECEPTION**

**Lee Ballroom**

*Sponsored by SIRSI*

**7:00 p.m.**

**DUTCH TREAT DINNERS**

**Meet your DTIC hostess in the lobby of the Ramada Plaza Hotel.**

**TUESDAY, 17 November 1998**

**7:00-8:30 a.m.**

**REGISTRATION AND CONTINENTAL BREAKFAST**

**Conference Center Foyer**

*Sponsored by EBSCO*

**8:30-9:00 a.m.**

**WELCOMING REMARKS**

**Washington Ballroom**

**Speaker: Mr. Kurt Molholm, Administrator, Defense Technical Information Center**

**9:00-10:00 a.m.**

**KEYNOTE ADDRESS**

**Washington Ballroom**

**Speaker: BG Donald L. Scott, U.S. Army (Retired), Deputy Librarian of Congress**

**10:00-10:30 a.m.**

**BREAK**

**Conference Center Foyer**

*Sponsored by UMI*

**10:30-11:30 a.m.**

**SERVICE CIOs PANEL**

**Washington Ballroom**

**Moderator: Ms. Barbara Wrinkle, AF**

**Speakers: LtGen William J. Donahue, Air Force Deputy CIO  
Col Scott Hammell, Office of the Air Force CIO  
COL John C. Deal, Office of the Army CIO  
Ms. Jackie Rustigian, Office of the Army CIO  
Ms. Patsy Gates, Office of the Navy CIO**

**11:45 a.m.-12:45 p.m.**

**LUNCHEON**

**Lee Ballroom**

**1:00-2:00 p.m.**

**ARMY CIO ROUNDTABLE**

**Ramsay**

**NAVY CIO ROUNDTABLE**

**Cameron-East**

**AIR FORCE CIO ROUNDTABLE**

**Cameron-West**

**2:15-3:15 p.m.**

**BREAKOUT SESSIONS I: — Digital Library Potpourri**

**End-User Training in an Electronic World**

**Moderator: Ms. Ann Parham, National Defense University (NDU)**

**Ramsay**

**Electronic Serials**

**Cameron-East**

**Moderator: Ms. Sara Mikel, NDU**

**Panelists: Ms. Carol McAdams, JSTOR**

**Ms. Anita Reeb, OCLC**

**Ms. Melanie Vandermark, Project Muse, Johns Hopkins University Press**

**Ms. Tim Mitchell, University Microfilms**

The proliferation of web resources and access has resulted in a revolution in serials. Electronic serials have changed the way libraries provide information to their patrons and the way that patrons use libraries. The influence of electronic serials is felt throughout library operations from shelving and binding to self-sufficient patrons that can perform research and locate information from their home computers. The purpose of the panel is to present the best of the electronic serials that are available and help librarians to make informed judgments regarding their usefulness and applicability.

**Metadata and the Digital Library**

**Cameron-West**

**Moderator: Ms. Julie Gibson, DTIC**

**Speaker: Ms. Gail Hodge, Information International Associates, Inc.**

Metadata is one of the most critical building blocks for a successful digital or virtual library. But, what is metadata? Is it just another fancy name for bibliographic record, or does it imply more, and if so, what? What issues surround metadata? Can't all digital materials be described by one metadata format or schema? What is the matter with MARC, which was designed to handle all types of materials? Why are there so many formats for metadata and how can these formats possibly work together? This session will address these questions and others, specifically in the context of the types of materials and information resources applicable to DoD and military digital or virtual libraries.

**3:15-3:45 p.m.**

**BREAK**

**Conference Center Foyer**

*Sponsored by UMI*

**3:45-4:45 p.m.**

**BREAKOUT SESSIONS II: — Digital Library Potpourri**

**Whatever Happened to the Card Catalog . . . Trends in Library Automation**

**Ramsay**

**Moderator: Ms. Barbara Nekoba, Marine Corps**

**Panelists: Mr. Tom Rogers, SIRSI Corporation**

**Mr. Joe Simpson, MAXCESS Corporation**

Three leading library automation vendors will discuss and demonstrate how their companies are using new technologies to bring library staff and end users into the 21st century:

Tom Rogers, Manager of federal business development for SIRSI Corporation, will discuss SIRSI's focus on bringing innovation to the automated systems marketplace. The presentation will touch on past SIRSI "firsts" and address its collaborative research partnerships.

Joe Simpson, President of MAXCESS Corporation, will discuss "Knowledge Management in Your Organization - How to Get There From Here." His presentation will explore some of the ways knowledge management can help both organizations and library careers.

A representative from Endeavor Information Systems will talk about Voyager, the company's online integrated library system, which offers traditional "card catalog" type searches but also sophisticated keyword, Boolean, and web-style relevance searching to make access to information easier.

Each speaker will give an online demonstration of his product.

### **Digitizing Your Library**

**Cameron-East**

**Moderator: Ms. Phyllis Levine, DTIC**

**Panelists: Ms. Lynn Newbill, Ballistic Missile Defense Organization**

**Ms. Marsha Dreier, Air Force Research Laboratory**

**Ms. Laurie Stackpole, Naval Research Laboratory**

Ms. Lynn Newbill, Head Librarian, from the BMDO Technical Information Center, Ms. Marsha Dreier, Virtual Information Team Leader, Air Force Research Lab and Ms. Laurie Stackpole, Chief Librarian, from the Library at the Naval Research Laboratory share lessons learned from planning, implementing and maintaining scanning and imaging projects into their centers.

Presentations given by Ms. Newbill and Ms. Dreier will address the possibilities and solutions for planning and overcoming obstacles experienced in scanning initiatives. In addition they address critical economic, administrative and political issues which affect the integration of technology into the library environment.

Ms. Laurie Stackpole will discuss TORPEDO, part of NRL's digital library initiative. TORPEDO is an existing system available on the Web containing NRL's entire unclassified research reports. Links to NRL's web based catalog have been added enabling the user to search the library's catalog, identify a relevant report and click on a hyper link to view the complete document. The digitization process, the strategy behind the interface, the principle of linking between documents and some general principles learned throughout the process.

### **Resource Sharing in an Electronic World**

**Cameron-West**

**Moderator: Ms. Bonnie Klein, DTIC**

**Panelists: Mr. Fred Rettenmaier, Naval Research Laboratory (NRL)**

**Ms. Sue Goodman, Air University Library**

**Ms. Martha Fishel, National Library of Medicine (NLM)**

In the preceding Electronic Serials session, panelists discussed how to evaluate and select electronic resources. Now hear from librarians about practical management considerations. These include: the fit with your library's collection development policy; product pricing and licensing terms; integration into your collection and systems; and most importantly access to these resources today and tomorrow by both internal and external users.

Panelists will discuss whether their experience with managing electronic resources supports the creed of "Modern librarianship as defined by the last 100 years which assumes an underlying resource sharing and cooperative work ethic. And whether developments in modern resource sharing will alter this ethic." (Morgan, Eric Lease, "Resource Sharing and Consortia, or,

Becoming a 600-Pound Gorilla," Computers in Libraries v18, n4 (April 1998). Abstract:  
<http://www.infotoday.com/cilmag/apr/cilab4.htm>)

**6:00 p.m.**

**DINNER AND ENTERTAINMENT AT THE FORT BELVOIR OFFICERS' CLUB**

**Meet in the lobby of the Ramada Plaza Hotel. Buses will leave promptly at 6:00 p.m.**

**Transportation will be available from the hotel to the Ft. Belvoir Officers' Club and back.**

**Featured Speaker: Commander Ralph E. Chatham, U.S. Navy Retired, Storyteller,  
Physicist and All-Purpose Curmudgeon**

## **WEDNESDAY, 18 November 1998**

**7:00-8:30 a.m.**

**CONTINENTAL BREAKFAST**

**Conference Center Foyer**

**8:30-9:30 a.m.**

**DIGITAL LIBRARY INITIATIVES IN THE DEPARTMENT OF DEFENSE**

**Washington Ballroom**

**Moderator: Dr. Marcia Hanna, DTIC**

**Speakers: Dr. Ron Larsen, Defense Advanced Research Projects Agency (DARPA)**

**Dr. William Arms, Corporation for National Research Initiatives (CNRI)**

Speakers will describe digital and virtual library efforts by the Defense Advanced Research Projects Agency (DARPA), Army, Navy, Air Force and DTIC.

Dr. Ron Larsen, Assistant Director of the Information Technology Office (ITO) at DARPA, will discuss highlights of progress made in the Digital Libraries Initiative (DLI), sponsored by DARPA, NSF and NASA, with a focus on technology objectives and approaches for Defense applications, as well as the anticipated challenges and directions for the future.

Dr. William Arms, Corporation for National Research Initiatives (CNRI), Reston, VA, will describe the Defense Virtual Library (DVL) prototype. The DVL is a joint effort by DTIC, DARPA and CNRI. Dr. Arms will describe the CNRI Repository Architecture, the CNRI Handle System for locating digital materials using Universal Resource Names, and progress to date in implementing the architecture, the Handle System, the information retrieval system, and in managing text, image and sound files.

**9:30-10:00 a.m.**

**BREAK**

**Conference Center Foyer**

**10:00-11:15 a.m.**

**DIGITAL LIBRARY INITIATIVES IN THE DEPARTMENT OF DEFENSE (continued)**

**Washington Ballroom**

**Moderator: Dr. Marcia Hanna, DTIC**

**Speakers: Ms. Marsha Dreier, Air Force Research Laboratory (AFRL)**

**Mr. Ed Burgess, Combined Arms Research Library (CARL)**

**Ms. Laurie Stackpole, Naval Research Laboratory (NRL)**

Marsha Dreier, Virtual Information Team Leader of the Air Force Research Laboratory (AFRL), Phillips Site, Kirtland AFB, NM, will discuss opportunities available for electronic presentation at the researcher's desktop, projects under development and potential expansion.

Ed Burgess, Archives Manager of the Combined Arms Research Library (CARL), will discuss a range of CARL's ongoing digital library initiatives, its achievements, problems, manpower costs, and planning issues. In addition, he will briefly discuss preservation, access, and tradeoffs between media.

Laurie Stackpole, Chief Librarian of the Ruth H. Hooker Research Library, Naval Research Laboratory (NRL), Washington, DC, will describe the NRL Library's efforts to provide users with unified access to both locally-mounted and remote databases and publications which, with the availability of the World Wide Web, have expanded to include the full content of library materials such as technical reports and scientific journals.

**11:30 a.m.-1:30 p.m.**

**LUNCHEON**

**Lee Ballroom**

**Speaker: Mr. Francis Buckley, Jr., Superintendent of Documents, United States Government Printing Office**

**1:30-5:00 p.m.**

**MECC MEETING**

**Washington Ballroom**

**MECC Members ONLY.**

**2:00-6:00 p.m.**

**AN AFTERNOON AT THE LIBRARY OF CONGRESS**

**Bus departs from the hotel promptly at 2:00 p.m.**

**TOURS: 2:45-4:45 p.m.**

**Jefferson Building and Madison Building**

**Architectural Tour: The Thomas Jefferson Building**

**All participants will participate in the architectural tour.**

"When its doors opened to the public in 1897, the Library of Congress represented an unparalleled national achievement: its twenty-three-carat-gold-plated dome capped the 'largest, costliest, and safest' library building in the world. Its elaborately decorated interior, embellished by works of art from more than forty American painters and sculptors, linked the United States to classical traditions of learning and simultaneously flexed American cultural and technological muscle." After a decade-long restoration, the Thomas Jefferson Building officially reopened to the public on May 1, 1997, with its great public spaces, hallways, and individual rooms returned to their original grandeur. The building is also part of military history. "Work began on laying the building's foundation in February 1888, and the cornerstone was laid in the northeast corner of the building on August 28, 1890. Gen. Thomas L. Casey of the U.S. Army Engineers oversaw the construction of the building from 1888 until his death in 1896. Bernard Green, the superintendent of construction under Gen. Casey, then assumed the job."

**Participants are divided into two groups for the following tours:**

**Reference and Reader Services**

There will be a unique opportunity for a special presentation hosted by the Humanities and Social Sciences Division in the spectacular Main Reading Room in the Jefferson Building. Presenters will discuss reference support for researchers and the nation's libraries.

**OR**

**Digital Library Visitors' Center**

The unique American history collections available to the general public through the Library of Congress's award-winning World Wide Web site, now number a half-million digitized items. The Digital Library Visitors' Center, located in the Madison Building, was established to provide a venue to learn more about the rich array of multimedia collections the Library has digitized. It provides a broad overview of the Web site.



**5:00-6:00 p.m.**

**HIGH TEA and Library of Congress Bicentennial Preview**

*Tea sponsored by Lexis-Nexis*

**Madison Building, 6th Floor, Mumford Room**

**Hosted by FEDLINK**

After the tours, join us for a bit of refreshment -- tea, coffee, scones and other treats -- in the Madison Building's Mumford Room. During tea, we will hear from the Library of Congress (LoC) Bicentennial Project Team who will provide an overview of commemoration plans, and from members of the Federal Library and Information Center Committee (FLICC) LoC Bicentennial Working Group who will discuss federal library initiatives and suggest ways for military libraries to participate in this Year 2000 event.

After tea, you may return to the hotel by provided buses departing at 6:15 p.m. or you may stay downtown to enjoy dinner at a local restaurant, returning to the hotel later on your own.

**6:00 p.m.**

**On your own.**

## **THURSDAY, 19 November 1998**

**7:00-9:45 a.m.**

**BREAKFAST WITH SERVICE REPORTS AND MLD BUSINESS MEETING**

**Lee Ballroom**

*Sponsored by SIRSI*

**9:45-10:30 a.m.**

**FEDLINK UPDATE**

**Lee Ballroom**

**Speaker: Ms. Susan Tarr, FLICC**

**10:30 a.m.- 12:00 p.m.**

**PROCUREMENT OF ELECTRONIC SERVICES FOR THE DIGITAL LIBRARY**

**Lee Ballroom**

**Moderator: Ms. Maxine Reneker, NPS**

**Panelists: Mr. Tom Rohmiller, Wright Laboratory**

**Ms. Meg Williams, FEDLINK**

**Ms. Sarah Mikel, NDU**

**Ms. Layne Huseeth, NPS**

**12:00- 12:30 p.m.**

**CLOSING**

**Lee Ballroom**

**1:00- 4:00 p.m.**

**TOUR OF THE CIA LIBRARY**

**MUST have prior clearance.**

**Bus departs from the front of the Ramada Plaza Hotel promptly at 1:00 p.m.**

Learn about the mission and goals for the modernization of the library infrastructure to provide a virtual library to all customers at their desktops at any location. See a demonstration of Maxcess (the CIA library catalog) and a number of library Lotus Notes databases accessible through the CIA Intranet. The tour also includes a visit to CIA history displays and to the gift shop.

**1:00- 4:00 p.m.**

**TOUR OF DTIC**

**Bus departs from the front of the Ramada Plaza Hotel promptly at 1:00 p.m.**

The tour will provide an opportunity to see how information becomes part of the DTIC collection. Follow the pipeline to see what happens from the moment materials are received in DTIC until they are available for distribution. Watch the Electronic Document Management System in action and hear from the experts!

## **FRIDAY, 20 November 1998**

**8:00 a.m.- 5:00 p.m.**

**AIR FORCE SERVICE MEETING**

**Cameron- West**

**9:00 a.m.- 4:00 p.m.**

**ADVANCED ACQUISITIONS/PROCUREMENT (FEDLINK- SPONSORED)**

**Cameron- East**

**(Registration begins at 8:30 a.m.)**

Librarians who purchase information for the Federal Government need to know how to fit the traditional practices of library acquisitions into the framework of Government finance and procurement rules. Building on a librarian's basic understanding of the acquisitions process and the publishing industry, this advanced workshop will address the special terminology, processes, and restrictions that federal librarians must incorporate into their regular way of operating.

**8:30 a.m.- 3:30 p.m.**

**DTIC DROLS TRAINING**

**Headquarters Complex, Ft. Belvoir, Virginia**

DROLS contains defense-specific information you can use to supply your users with a variety of information in addition to the well-known technical reports resulting from Defense sponsored research. Some samples are academic research performed in defense educational institutions, foreign information received from our allies, gray literature, planning and budgeting information, and more.

This session will give new and inexperienced DROLS users an introduction to the unique power of DROLS retrieval and ordering. Basic system operation and search methods will be outlined, focusing on formulating search strategies in the Technical Report (TR) and Technical Effort and Management System (TEAMS, previously WUIS) databases. This day long, hands on session will also cover using qualify and sort to refine results, use of alternative products to access the database, and new tools to assist searching.

### **Patricia Ames, Naval Research Laboratory (NRL)**

Ms. Ames is the Head of the Research Reports Section at the Ruth H. Hooker Research Library and Technical Information Center, Naval Research Laboratory, Washington, DC. The Section has been actively scanning technical reports literature onto optical media for the last 6-7 years and currently has +175,000 documents (9 million pages) digitized as part of the Section's classified LAN. The Library has also developed an unclassified collection of journal articles, plus copies of the unclassified technical reports literature in a system called TORPEDO.

Ms. Ames' prior experience in DOD technical libraries includes ten years of work in both Army and Navy libraries at and the Underwater Sound Reference Detachment, Orlando, FL; Naval Air Systems Command, Washington, DC; and the Benet Weapons Laboratory, Watervliet Arsenal, NY. She also served as a Post Librarian for the Army in Nuernberg and Heilbronn, Germany. Ms. Ames has a BS from Cornell University and an MLS from the State University of New York at Albany.

### **William Yeo Arms, Corporation for National Research Initiatives (CNRI)**

William Yeo Arms is Vice-President of the Corporation for National Research Initiatives (CNRI), which is headquartered in Reston, VA. CNRI is a not-for-profit organization formed in 1986 to foster research and development for the National Information Infrastructure. CNRI promotes synergy among government agencies, universities, and private organizations. CNRI also undertakes research in digital object rights management, and high-speed networking; and it supports educational initiatives in the public interest.

Dr Arms has a background in mathematics, operational research, and computing, with degrees from Oxford University, the London School of Economics, Sussex University, and Dartmouth College. He has been a pioneer in applying computing to academic activities, notably educational computing, computer networks, and digital libraries. From 1978 to 1985 he was at Dartmouth College as professor and head of computing. He then joined Carnegie Mellon University as Vice President for Computing. Since January 1995, he has been at CNRI, where he is responsible for advanced work in digital libraries and electronic publishing.

Dr. Arms will describe the Defense Virtual Library (DVL), which is a joint effort by the Defense Technical Information Center, the Defense Advanced Research Projects Agency, and CNRI to extend and transfer CNRI's Digital Object Architecture into a digital library implementation adapted to DTIC's needs. The project is designed to give DTIC a framework to build network-based services and collections. Further, the DVL project gives CNRI a testbed in which to further develop its Digital Object Architecture, work supported by DARPA.

Dr. Arms will describe the CNRI Repository Architecture and the CNRI Handle System for locating digital materials using Uniform Resource Names. Further he will bring us up to date on progress in implementing the architecture, the Handle System, the information retrieval system selected for DVL and in managing text, image and sound files in the prototype.

### **Mr. Francis J. Buckley, Jr., United States Government Printing Office**

Francis J. Buckley, Jr. was named Superintendent of Documents at the United States Government Printing Office (GPO) in November 1997. As such, he is responsible for the public distribution of millions of Government publications in both print and electronic formats. As a unit of the GPO, the Superintendent of Documents oversees a budget of more than \$100 million and a workforce of approximately 700. This organization operates a large mail order program as well as 24 bookstores nationwide for public sales of Government publications, including the popular Consumer Information

Center in Pueblo, CO. The Superintendent of Documents distributes millions of copies of Government documents to approximately 1,400 Federal depository libraries nationwide, where they are available for public use free of charge. The organization also maintains the award-winning GPO Access service on the Internet, at <http://www.access.gpo.gov>, which the public uses to retrieve an average of 5 million publications monthly.

Mr. Buckley came to his position from the Shaker Heights Public Library in Shaker Heights, Ohio, where he served as Director since 1994. From 1968 to 1994, he was with the Detroit Public Library. Mr. Buckley earned his bachelor's and master's degree in library science from the University of Michigan. He is a member of the Beta Phi Mu International Library Science Honor Society. After service in the Army, including duty in Vietnam, he joined the staff of the Detroit Public Library, where he rose from reference librarian and documents specialist to associate director for public services.

Mr. Buckley has been an active member of the American Library Association (ALA) since 1974, serving several terms on the ALA Council and chairing a number of important ALA committees, including the Government Documents Round Table, the Ad Hoc Committee to Form a Coalition on Government Information, and the Lippincott Award Jury. He has served on the ALA's Legislation Committee and chaired its Subcommittee on Government Information. He has served on the ALA's Coordinating Committee on Access to Information and the Special Committee on Freedom and Equality of Access to Information. He has also been active in the Special Libraries Association, the Michigan Library Association, the Government Documents Round Table of Michigan, the Michigan Library Consortium, the Southeast Michigan League of Libraries, and the Ohio Library Council. He is on the board of trustees of the Cleveland Area Metropolitan Library System, and served on the board of trustees of the Online Computer Library Center (OCLC).

For the past 20 years, Mr. Buckley has written and spoken extensively on the importance of public access to Government information. In the late 1970's, he was a member of the Ad Hoc Advisory Committee on the Revision of Title 44, U.S.C., the law controlling the dissemination of Federal publications. He was a member and chair of the Depository Library Council to the Public Printer, which provides advice on GPO's Federal Depository Library Program. He currently chairs the Inter-Association Working Group on Government Information Policy, representing the ALA and other national library associations, which was formed to recommend and review proposed changes to Federal laws on information dissemination that are currently under consideration.

Mr. Buckley also has an active record of civic involvement. He served on the Literacy Advisory Committee of the Detroit Head Start Program, and was on the board of directors of the Detroit Literacy Coalition. He also served on the Research Committee of the United Community Services of Metropolitan Detroit, in addition to local community development and historic Preservation organizations.

### Ed Burgess, Combined Arms Research Library (CARL)

The next speaker is Edwin Burgess from the Combined Arms Research Library (CARL). CARL is a comprehensive military science reference and research center located at Fort Leavenworth, Kansas. The primary user population is from the five schools of the U.S. Army Command and General Staff College. CARL also supports the research of the Combined Arms Center, the residents and employees of Fort Leavenworth, the U.S. Army Training and Doctrine Command, and military scholars worldwide.

Ed Burgess has worked for Army Libraries since 1972, when he started as a self-described drudge at Fort Leonard Wood. He has worked in post, technical, and academic libraries and in staff positions. Currently he is in his second tour at Fort Leavenworth-- he was also chief of reference at CARL 1978-82. His previous postings include a year at the now-defunct Safeguard ABM site in North Dakota; at the Concepts Analysis Agency in Bethesda; at Fort Riley, and at TRADOC headquarters.

Ed assumed his present position of Archives Manager at CARL in 1995. His current responsibilities include digitization of CARL materials, the CARL web page, and liaison with the Center for Army Lessons Learned. He has an MA in Library Science from the University of Minnesota.

Ed is a member of the Kansas Library Network Board, which he describes as an obscure state agency that promotes interconnection of libraries of all types and supports cooperative projects. He is president-elect of the Heart of America Chapter of SLA.

CARL has been involved in digitization efforts for some years. Ed will discuss a range of digital library initiatives that CARL has ongoing, including successes, problems, potholes, manpower costs, and planning issues that have arisen. He will briefly discuss preservation, access, and tradeoffs between media that CARL has considered.

### **Colonel John C. Deal, Office of the Director of Information Systems for Command, Control, Communications and Computers [Office of the CIO for the Army]**

Colonel John C. Deal was born in Chester, South Carolina. He is a graduate of the University of Alaska, Fairbanks, Alaska with a Bachelor of Arts degree in Physics. As an ROTC graduate, he was commissioned a Second Lieutenant, Signal Corps, in the Regular Army and entered on active duty in 1973.

His professional training and development include attendance at the Signal Officer Basic and Advance Courses, Airborne, Ranger and Air Assault Courses, the Telecommunications System Staff Officer Course, the Naval Command and Staff College, and was a Senior Service College Fellow at the University of Pittsburgh, Pittsburgh, Pennsylvania in 1993/94. In 1996/97 he was selected and participated in a senior level fellowship as a member of the Secretary of Defense Strategic Studies Group II. He holds a Master of Science degree in Electrical Engineering from the Naval Postgraduate School, a Master of Arts degree in National Security and Strategic Studies from the Naval War College, and a Master of Arts degree in International Relations from Salve Regina University.

Colonel Deal has served in a variety of command and staff assignments prior to his current position as the Executive Officer, Office of the Director of Information Systems for Command, Control, Communications, and Computers, Army CIO, Headquarters, Department of the Army. Prior, he served as the Deputy Director for Standards and Interoperability, Architecture Directorate, Office of the Director of Information Systems for Command, Control, Communications, and Computers. Other assignments include Commander, 59th Signal Battalion, Ft. Richardson, Alaska; Executive Officer, 6th Signal Battalion, 6th Infantry Division (Light), Alaska; Assistant Professor of Electrical Engineering, USMA, West Point, NY; Operations & Intelligence Officer, 39th Signal Battalion, Germany; Commander, 581st Signal Company, 39th Signal Battalion, Germany; and various positions as a platoon leader and staff officer in the 13th Signal Battalion, First Cavalry Division, Fort Hood, Texas.

### **Marsha Dreier, Air Force Research Laboratory (AFRL/PSTV)**

Marsha Dreier is the Virtual Information Team Leader for the Phillips Site of the Air Force Research Laboratory (AFRL/PSTV) at Kirtland AFB, Albuquerque, NM. Ms. Dreier has over eighteen years of library experience and has been an USAF Librarian since 1988. She has brought networking and automation expertise to the Library from Air Combat Command, where she was also on the Automation Steering Committee. She has worked at Phillips Lab since July of 1995 and has been involved in the daily operation of the Optical Imaging Program. For the last year she has worked with the AFRL Chief Information Officer Council and the AFRL Libraries to implement the AFRL Virtual Library. She is a Director and incoming chairman for the Library Service Alliance of New Mexico, Chair of the STILAS (ILS) Users Group, as well as actively involved in the American Libraries Association (ALA) and the Special Libraries Association (SLA). She is a past president of AFLRT (Air Force Libraries Roundtable) within ALA. She also served the State of New Mexico on their Automation Committee and has acted in

an advisory capacity for NM State libraries. She received her Master's degree in Library Science from the University of Arizona.

#### **Martha Fishel, National Library of Medicine**

Martha R. Fishel has been at the National Library of Medicine since 1976, where she currently holds the position of Deputy Chief, Public Services Division. Prior to that, she worked in the Library's Serial Records Section. She has been involved with the DOCLINE and SERHOLD systems since their inception in 1979/80, and was instrumental in the development of Loansome Doc, the document delivery service under Grateful Med and Pubmed. Most recently she has been involved in the implementation of Relais, a new document delivery processing system, and the installation of a commercial integrated library system, Endeavor's Voyager System.

#### **Susan Goodman, Air University Library**

Air University Library (<http://www.au.af.mil/au/aui/aulv2.htm>) – Academic mission to support student education and faculty teaching and research needs requiring current and historical information. Primarily serves campus population and AU students participating in distance education world-wide.

Sue Goodman currently serves as Chief of the Reference Branch at Air University Library. The Reference Branch includes: the Reference Department, Periodicals, Electronic Services, Interlibrary Loan, and the Senior Non-Commissioned Officer Academy Library (SNCOA). Ms. Goodman has been on the AUL staff for 17 years. Previous AUL positions include: Air War College Bibliographer, Squadron Officer School Bibliographer, Editor, and Periodicals Assistant Librarian. Before coming to AUL, she worked at Erling Rees Research Library (International Paper Co.) in Mobile; and Mobile College as a reference librarian. She holds a MLS from the University of Alabama and a BS from Mississippi University for Women.

#### **Gail Hodge, Information International Associates, Inc.**

Gail Hodge has been involved in the design of production systems for abstracting and indexing services since 1978. Since March 1996, she has been employed by Information International Associates, Inc., with primary responsibility for project management and consulting in the areas of database production, metadata and bibliographic record analysis, and the application of technology to cataloging and indexing. Recent metadata-related projects include an analysis of metadata standards for the U.S. Department of Energy and the International Nuclear Information System, development of a distributed thesaurus in biodiversity and ecosystem science to support metadata creation for the US Geological Survey/Biological Resources Division, and support for coordinated metadata efforts for CENDI, an interagency group of federal STI managers. She has developed various metadata related programs and workshops for CENDI and the Federal Library and Information Center Committee (FLICC).

Prior to joining IIA, Ms. Hodge was Director of Operations and Analysis for RMS Associates, contractor for the NASA Center for AeroSpace Information. From 1978 to 1993, Ms. Hodge was employed by BIOSIS, the world's largest secondary publisher in the biological and life sciences with responsibility for production systems redesign and development, and research and development.

Ms. Hodge has published and presented papers on automatic indexing, machine-aided translation, project management for database production systems, and database production system redesign. She has prepared many technical reports for CENDI on a variety of topics ([www.dtic.mil/cendi/publications](http://www.dtic.mil/cendi/publications)). She has written or contributed to several books on production technologies, including Computer Support to Indexing, co-authored with Jessica Milstead, recently published by the National Federation of Abstracting and Information Services.

Ms. Hodge holds an M.L.S. from Drexel University, Philadelphia, PA and a B.A. in English and Religion from Albright College, Reading, PA.

#### **Dr. Ron Larsen, Defense Advanced Research Projects Agency (DARPA)**

The first speaker is Dr. Ron Larsen from the Defense Advanced Research Projects Agency (DARPA). DARPA is the central research and development organization for DoD. DARPA directs and manages projects where the risk is high and where success may provide dramatic payoff. DARPA, through its Information Management program, has been a partner with the National Science Foundation and with NASA in the Digital Libraries Initiatives (DLI-I and DLI-II).

Dr. Larsen is the Assistant Director of the Information Technology Office at DARPA. He manages the Intelligent Software Division, which is responsible for research in information management, human computer interaction, human language systems, distributed collaboration, visualization, and software engineering. He personally manages research in information management, including digital libraries.

Dr. Larsen is presently on leave from the University of Maryland, where he is the associate director of the university libraries and is an affiliate associate professor of computer science. Prior to coming to the University of Maryland, he worked for NASA for 17 years. He spent five years at NASA Headquarters in the District of Columbia, where he managed the agency's research in automation and computer science. Before coming to NASA Headquarters, Dr. Larsen worked at Goddard Space Flight Center, where he programmed real time mission support systems and conducted research in computer networking.

He holds a B.S. degree in engineering sciences from Purdue University, an M.S. in applied physics from Catholic University, and a PhD in computer science from the University of Maryland.

Dr. Larsen will highlight progress made in DLI, within the context of the DARPA's Information Management program, focusing on technology objectives and approaches for Defense applications. The DARPA's Information Management program targets technologies supporting intelligence and crisis management applications. Challenges and directions for the future will also be considered.

#### **Rosemary Marlowe-Dziuk, National Defense University Library**

Rosemary Marlowe-Dziuk is the Senior Reference Librarian at the National Defense University. She is a native of Florida and a graduate of Florida State University. Rosemary began her Army career as a TRADOC library intern at Ft Belvoir in 1976. She has been a reference librarian at the Combined Arms Research Library in Ft Leavenworth KS, at the Augsburg Community Library in Augsburg, GE, and at the USAREUR Library & Resource Center in Heidelberg, GE. In addition she was the Community Librarian for the Munich, Garmisch & Berchtesgaden area of Germany for 5 ½ years. Rosemary has worked at NDU since 1989.

#### **Sarah Mikel, National Defense University**

Professional experience. Library Director, National Defense University Library, Washington, D.C. 1991 to present. Command Librarian, U.S. Army Corps of Engineers, 1987-1991. Chief, Office Chief of Engineers Library, 1980-1987. Defense Technical Information Center, Librarian, 1980. Chief, Technical Services, Office Chief of Engineers, 1976-1980. Librarian, Rock Island District, U.S. Army Corps of Engineers, 1974-76. Serials Cataloger, Purdue University, 1973-74. Editorial Researcher, Field Enterprises, Chicago, IL 1971-72 Education. University of Miami, B.A. 1969, University of Florida, M.A. 1971, Rosary College M.L.S. 1973

Activities. In the recent past I've been involved with coordinating the MERLN Website, the web presence of the Military Education Coordination Conference Libraries. I've served as the Chair, Army



Library Steering Committee from 1997-99. Outreach activities include participation as a speaker and panel moderator at the Military Librarians Workshop 1999 and a speaker at the Army Library Institute 1999.

#### **Kurt Molholm, Defense Technical Information Center**

Mr. Kurt Molholm became the Administrator of the Defense Technical Information Center (DTIC) on 3 February 1985. Before coming to DTIC, Mr. Molholm was Chief of the Technology Division, Office of the Assistant Director, Telecommunications and Information Systems, Headquarters, Defense Logistics Agency (DLA). Previous to that he served in the office of the DLA Senior Automatic Data Processing Office as a Program Manager, Chief of the Systems Division, Chief of the Plans and Policy Office, and as the Senior Technical Advisor. Before coming to DLA Headquarters, Mr. Molholm was in various computer programmer, system analyst, and computer management positions in the DLA Administrative Support Center, the Defense Fuel Supply Center, and the Defense Construction Supply Center. He served 3 years as a U.S. Army Quartermaster Officer with most of his duty at the Columbus General Depot (now known as the Defense Supply Center, Columbus.)

A member of the Senior Executive Service, Mr. Molholm has a B.S. Degree in Business Administration from the University of Oregon, an MSA in Administration from George Washington University, and is a graduate of the Industrial College of the Armed Forces (ICAF). He has been awarded both the DLA Exceptional Civilian Service and the DLA Meritorious Civilian Service medals and was recognized by the William A. Jump Memorial Foundation for Exemplary Public Service. He was also recognized as one of the 1996 "Federal 100" by Federal Computer Week. Mr. Molholm is active in the Scientific and Technical Information community. He is the current Chairman of the interagency group of Scientific and Technical Information (STI) senior managers known as CENDI. He is a past President of the National Federation of Abstracting and Information Services (NFAIS) and a former member of NATO's Research & Technology Organization (RTO) (formerly the Advisory Group for Aerospace Research and Development (AGARD) Technical Information Panel). He is a member of the International Council for Scientific and Technical Information (ICSTI) and Chairs the Editorial Board of the ICSTI Forum. He is a member of the Federal Library and Information Center Committee (FLICC) and serves as Chair of the FLICC Policy Committee and is a member of the FLICC Executive Board. His biography appears in "Who's Who in the United States."

#### **Harriet Oxley, Ruth H. Hooker Research Library and Technical Information Center, Naval Research Laboratory**

Harriet Oxley received her B.S. degree in chemistry and human ecology in 1959 from Howard University. She continued at Howard University completing all courses for a Masters in Microbiology. In 1976, Ms. Oxley received her M.S. degree in Technology of Management concentrating in the field of Scientific and Technical Information systems from the American University.

Ms. Oxley began her career in 1960 as a bacteriologist with the National Institutes of Health. In 1962, she transferred to the Food and Drug Administration as a microbiologist. In 1968, she was selected to join the staff of the newly formed Scientific Information Facility of the FDA and remained in that capacity until 1971. In 1971, she took a break from her professional career to devote time to her family. In 1982, Ms. Oxley resumed her federal career as a technical information specialist with the Naval Research Laboratory where she is currently employed in the reference section of the Ruth H. Hooker Research Library and Technician Information Center.

Ms. Oxley has published papers in various microbiological journals and her article in the April 1998 issue of *Database Magazine* was the recipient of the editor's choice award.

### **Carla Pomager, Redstone Scientific Information Center, Redstone Arsenal**

Carla Pomager graduated from Ball State University with a B.X. in Liberal Arts and immediately left the snowy weather to get her Master of Science Degree in Library Science from Florida State University.

After enjoying the sun for a year, Carla began her library career at the Free Library of Philadelphia as children's librarian. Her transition to the Army library program began in 1972 when she flew overseas to the Nuremberg Military Community in Germany, moving to Darmstadt in 1974, and Baumholder in 1978.

When Carla came back to the states in 1981, she brought back the requisite cuckoo clock, shrank, plus 2 babies. Of course the transfer to the Chemical School at Fort McClellan, Alabama was a little hard on her husband, Joe, because the local McDonald's Hamburgers did not serve beer. Carla has now been at Redstone Scientific Information Center (RSIC) on Redstone Arsenal, near Huntsville, AL, since 1984 and has been the systems librarians since 1993.

### **W. F. Rettenmaier, Naval Research Laboratory**

Mr. Rettenmaier is currently Coordinator for Access and Services at the Ruth H. Hooker Research Library, Naval Research Laboratory (NRL) Washington, DC. His former positions include: Librarian, Office of Naval Research, Arlington, VA; Senior Reference Librarian, NRL; Assistant Documents Librarian, NRL; Librarian, Naval Environmental Prediction Research Facility, Monterey, CA -- and a stint at St. Elizabeths Mental Hospital (NIH-NIMH), Washington, DC.

Mr. Rettenmaier has been active within the federal library community. He has served on- and been chairman of the FLICC Education Working Group (Federal Library and Information Center Committee, Library of Congress). He currently serves as a FEDLINK Rotating Member to FLICC, and as chairman of the FEDLINK Advisory Council.

Mr. Rettenmaier has previously been a presenter at this Workshop, and in other venues, including: FLICC/FEDLINK, ALA, and Computers in Libraries.

In earlier networking environments, Mr. Rettenmaier was the Monterey County, Representative for Special Libraries to the Cooperative Information Network (CIN in California; he served as Chairman of CIN before relocating to NRL.

Prior to his federal library career, Mr. Rettenmaier taught in the secondary schools of New Jersey; he also served with the US Army.

Mr. Rettenmaier holds an A.B. degree in English and Education from Seton Hall University and the M.L.S. degree from Catholic University, Washington, D.C.

### **Tom Rohmiller, Air Force Research Laboratory**

Tom Rohmiller is currently Library Team Coordinator at the Air Force Research Laboratory, Wright Research Site, Technical Information Division, Wright Patterson AFB, Ohio where he is responsible for administering the Library's daily operations. He was instrumental in establishing base-wide network access to electronic editions of commercial publications and creating end-user search accounts with UnCover and Dialog Corporation's Dialog Select.

Prior to moving to Wright Laboratory, Tom spent three years as the Administrative Librarian at Headquarters Air Force Materiel Command and its predecessor Air Force Logistics Command.

Tom joined the Central Ohio Chapter of Special Libraries Association in 1980 shortly after moving from the University of Dayton to Mead Digital Systems, later Diconix, a Kodak Company. He managed the library and records programs there until leaving for BDM Corp. in 1986. During this period, he was Chair of the Professional Development Committee (3 times), Chapter President-elect and

President, Director, Consultation Committee, and Nominating Committee. Tom is a member of the Military Librarians Division since 1990. He is the 1998-99 Chair of the Division and was program planning Chair for the 1997 Seattle Annual Conference.

**Jackie Rustigian, ITM Proponency (CP-34), HQDA, DISC4, SAIS-IMP**

Ms. Jackie Rustigian, Director, ITM Proponency (CP-34) since March 1998, has a background in human resources development (HRD) and library/information science. She brings experience directing high tech career programs, IT training, and leadership development for preparing a flexible workforce in a technology-driven defense environment.

Prior to coming to the Army, Ms. Rustigian was an HRD manager at the Defense Information Systems Agency (DISA) from 1989-98. She established the career development framework for the DISA Career Management System for civilian employees. This comprehensive development and placement system defined the agency's major career areas, core competencies, and skill topics, and provided core curriculum plans, career assessment tools, and IDP guides. She established a competency-based curriculum with high tech organizations and academic institutions, and initiated the first agency guidelines for the Defense Leadership and Management Program (DLAMP).

At the National Library of Medicine (1974-89) Ms. Rustigian managed a national health sciences information and training network and guided a prestigious post-master's intern program for high potential information science professionals.

Ms. Rustigian holds master's degrees from Virginia Tech (Human Resources Development) and Emory University (Library Science) and a bachelor's degree from Connecticut College.

Mr. Rustigian's goal is to create an innovative enterprise for ITM Proponency (CP-34) using technology to promote access to career programs for the Army ITM workforce of the 21<sup>st</sup> century.

**Brigadier General Donald L. Scott, U.S. Army, Retired, Deputy Librarian of Congress**

Donald Lavern Scott was appointed Deputy Librarian of Congress on September 30, 1996. General Scott has full authority to manage the day-to-day administration of the Library's internal operations, making Library-wide decisions consistent with the Librarian's directions and established policies. The Deputy Librarian is responsible for allocating resources, monitoring the Library's operational progress and ensuring that the Library's mission is carried out and objectives are met.

Prior to coming to the Library of Congress, General Scott served as the chief executive officer of AmeriCorps National Civilian Community Corps (NCCC), a division of the Corporation of National Service. The federally-funded corporation, established in 1993, recruits young people 18-24 years of age, from all backgrounds, for full-time community service.

Before joining the NCCC, General Scott served the Mayor of Atlanta, Maynard Jackson, from April 1991 to December 1992 as chief operating officer and chief of staff.

In 1991, General Scott retired from the United States Army with the rank of brigadier general after 31 years of service. His last active duty assignment was at Fort Gillem, Georgia where he managed a staff of over 400 people who provided financial personnel, operational, logistical and training support for Reserve and National Guard units in the southeastern United States and the Virgin Islands. His earlier career in the Army included tours in Germany and two tours in Vietnam. His military decorations include the Distinguished Service Medal, the Legion of Merit, six Bronze Stars, and the Combat Infantryman's Badge.

A native of Hunnewell, Missouri, General Scott received his B.A. in graphic arts from Lincoln University in Jefferson City, Missouri in 1960, as well as his commission as a second lieutenant. He received his M.A. in counseling and human development from Troy State University in Montgomery, Alabama in 1982. General Scott also holds an Honorary Doctor of Law degree from Lincoln University.

General Scott is married to Betty Jean Forte, and they are the parents of two sons, Jeffrey and Merrill and the grandparents of Taylor, Desiree and Gina.

**Laurie Stackpole, The Ruth H. Hooker Research Library, Naval Research Laboratory**

Our final speaker this morning, Laurie Stackpole, is Chief Librarian of the Ruth Hooker Library. Laurie has over 20 years experience in administering research collections and in developing and adapting technologies for transfer of scientific information to researchers and administrators. As the head of the library of the Navy's corporate research facility, she has been an early implementer of several technologies that provide the underpinnings for the emerging digital library. Examples are the optical storage of library materials and the delivery of information directly to the end user through the use of networks.

In 1997 Laurie received the Information Today Award for Technological Innovation in a library setting from the Special Libraries Association. Ms. Stackpole has published more than a dozen articles and papers describing the digital library efforts of the Ruth H. Hooker Research Library. She holds a Masters degree in Library and Information Science from the Catholic University of America as well as Bachelors and Masters degrees in physics.

In her presentation entitled "Building the NRL Digital Library" Laurie will provide us insight to the NRL approach to providing desktop Access to Information DoD Researchers Need.

**Susan M. Tarr, Federal Library and Information Center Committee (FLICC) and FEDLINK (the Federal Library and Information Network)**

Susan Tarr has served as Executive Director of the Federal Library and Information Center Committee (FLICC) and as Director of FEDLINK (the Federal Library and Information Network) since 1994. The mission of FLICC is to foster excellence in federal library and information services through interagency cooperation and to provide guidance and direction for FEDLINK. The mission of FEDLINK is to serve federal libraries and information centers as their purchasing, training and resource-sharing consortium. Both programs are headquartered at the Library of Congress and serve all three branches of the federal government.

Ms. Tarr received her B.A. degree from Westminster College in Pennsylvania, her M.L.S. from the University of North Carolina-Chapel Hill, and her M.A. in political science from the George Washington University in Washington, DC. She began her tenure at the Library of Congress as a special recruit in the LC Intern Program 1974-75; at LC, she has worked in the Congressional Research Service, the former Processing Services department, and the former Constituent Services department. Ms. Tarr became Executive Officer of the Processing Services department in 1983; and from 1986 to 1994, Ms. Tarr served as the Chief of the Cataloging Distribution Service of the Library of Congress, a cost-recovery program that distributes LC cataloging records and systems worldwide.

**Kathy Wright, SPAWAR Systems Center San Diego**

Kathy Wright is Head Librarian at SPAWAR Systems Center San Diego. She has a B.S. degree in chemistry from the University of Southern California and worked in the Chemistry Section at Rocketdyne for more than 5 years. She obtained her M.L.S at UCLA in 1971 and has been working at SSC and its predecessor organizations since that time. She has been active in professional affairs, including past chair of the San Diego Chapter of the Special Libraries Association (SLA), past chair of the Consortium of Naval Libraries, and a director of the Friends of the San Diego Public Library. In 1987, she authored *Translations of Scientific and Technical Literature: a Guide to their Location*, which was published by the Aerospace Division of the SLA.



Tuesday, November 17<sup>th</sup>, 1998  
Keynote Address: BG Donald L. Scott, U.S. Army (Retired)  
Deputy Librarian of Congress



Tuesday, November 17<sup>th</sup>, 1998  
Service CIO's Panel  
Speaker: LtGen William J. Donahue,  
Air Force Deputy CIO



Tuesday, November 17<sup>th</sup>, 1998  
Service CIO's Panel  
Speaker: LtGen William J. Donahue,  
Air Force Deputy CIO



Tuesday, November 17<sup>th</sup>, 1998  
Service CIO's Panel  
Speaker: Col John C. Deal,  
Office of the Army CIO



Tuesday, November 17<sup>th</sup>, 1998  
Army CIO Roundtable  
Jackie Rustigian,  
Office of the Army CIO



Tuesday, November 17<sup>th</sup>, 1998  
Air Force CIO Roundtable  
Speaker: Col Scott Hammell,  
Office of the Air Force CIO



Tuesday, November 17<sup>th</sup>, 1998  
End-User Training in an Electronic World  
Speaker: Rosemary Marlowe-Dziuk,  
National Defense University



Tuesday, November 17<sup>th</sup>, 1998  
Metadata and the Digital Library  
Speaker: Gail Hodge  
Information International Associates, Inc.



Tuesday, November 17<sup>th</sup>, 1998  
 Metadata and the Digital Library  
 Speaker: Gail Hodge  
 Photograph with audience



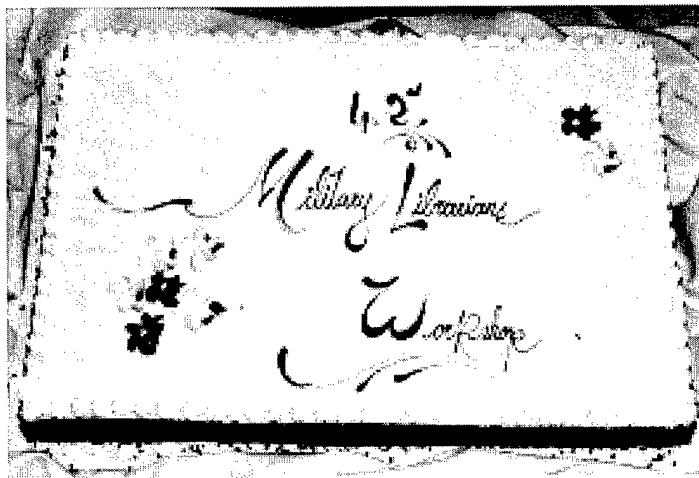
Tuesday, November 17<sup>th</sup>, 1998  
 Whatever Happened to the Card Catalog...  
 Trends in Library Automation  
 Panelist: Tom Rogers, SIRSI Corporation



Tuesday, November 17<sup>th</sup>, 1998  
 Resource Sharing in an Electronic World  
 Panelists: Fred Rettenmaier,  
 Naval Research Laboratory (standing)  
 Sue Goodman, Air University Library, and Martha Fishel,  
 National Library of Medicine (both seated)



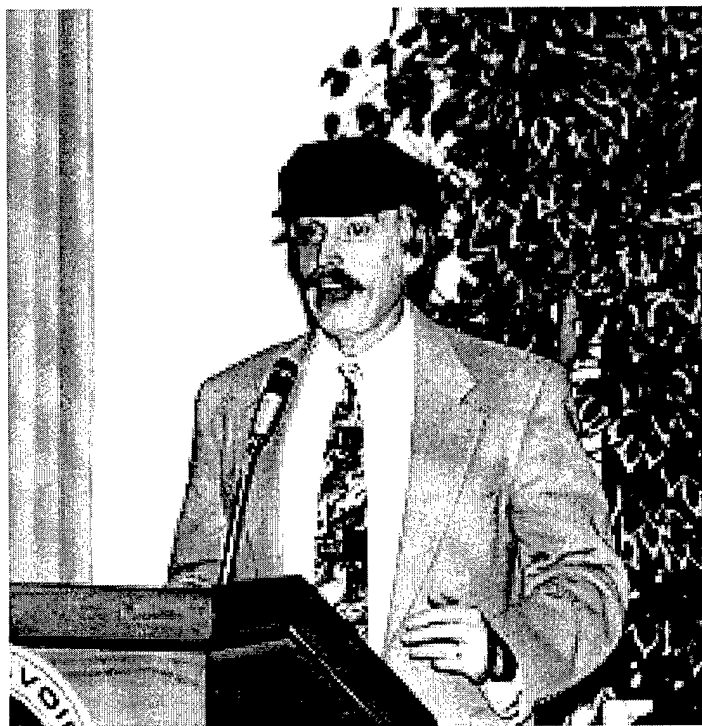
Tuesday, November 17<sup>th</sup> 1998  
 Planners: Gerri Shane (left) and Marjorie Powell (right)  
 At the Dinner and Entertainment, Fort Belvoir Officers' Club



Tuesday, November 17<sup>th</sup>, 1998  
Dinner and Entertainment  
Fort Belvoir Officers' Club....Cake!



Tuesday, November 17<sup>th</sup>, 1998  
U.S. Marine Corps Brass Quintet  
Dinner and Entertainment  
Fort Belvoir Officers' Club



Tuesday, November 17<sup>th</sup>, 1998  
Commander Ralph E. Chatham, U.S. Navy Retired, Storyteller,  
Physicist and All-Purpose Curmudgeon  
Dinner and Entertainment  
Fort Belvoir Officers' Club

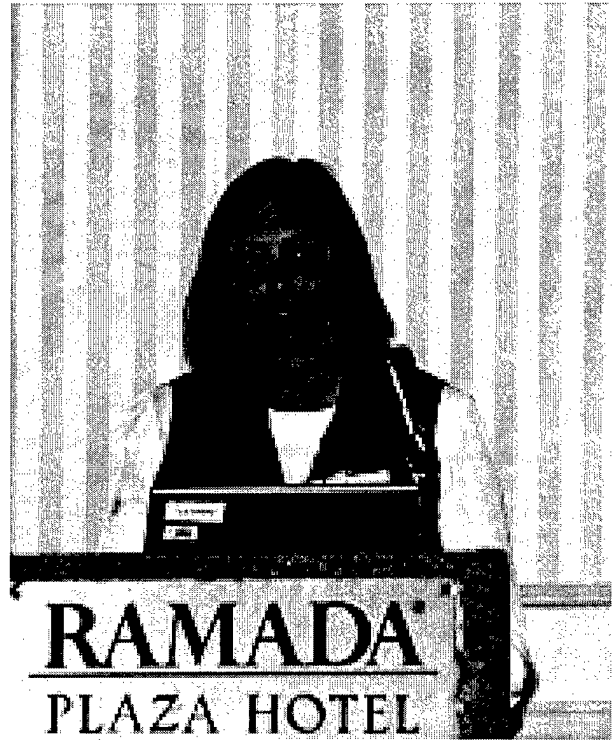


Wednesday, November 18<sup>th</sup>, 1998  
Digital Library Initiatives in DoD  
Speaker: Ron Larsen,  
Defense Advanced Research Projects Agency





Wednesday, November 18<sup>th</sup>, 1998  
Digital Library Initiatives in DoD  
Speaker: William Arms,  
Corporation for National Research Initiatives



Wednesday, November 18<sup>th</sup>, 1998  
Digital Library Initiatives in DoD  
Speaker: Marsha Dreier, Air Force Research Laboratory



Wednesday, November 18<sup>th</sup>, 1998  
Digital Library Initiatives in DoD  
Speaker: Ed Burgess, Combined Arms Research Library



Wednesday, November 18<sup>th</sup>, 1998  
Digital Library Initiatives in DoD  
Luncheon Speaker: Francis Buckley, Jr., Superintendent of  
Documents, US Government Printing Office



Wednesday, November 18<sup>th</sup>, 1998  
LC Digital Library Tour, Group Picture



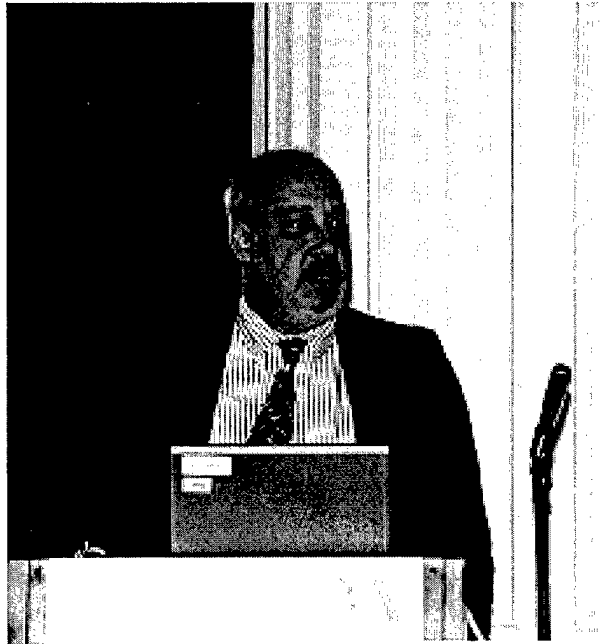
Wednesday, November 18<sup>th</sup>, 1998  
High Tea and Library of Congress Bicentennial Preview  
Dorothy Reid, FLICC



Wednesday, November 18<sup>th</sup>, 1998  
High Tea and Library of Congress Bicentennial Preview  
Barbara Christein



Wednesday, November 18<sup>th</sup>, 1998  
Breakfast with Service Reports and  
MLW Business Meeting  
Ann Parham, Army Librarian



Thursday, November 19<sup>th</sup>, 1998  
MLW Business Meeting  
Fred Rettenmaier, FEDLINK Advisory Council



Thursday, November 19<sup>th</sup>, 1998  
Procurement of Electronic Services  
for the Digital Library  
Moderator: Maxine Reneker,  
Naval Postgraduate School



Thursday, November 19<sup>th</sup>, 1998  
Procurement of Electronic Services  
for the Digital Library  
Speaker: Layne Huseth, Naval Postgraduate School



# Military Librarians Workshop '98

42<sup>nd</sup> Annual Military Librarians Workshop

17-19 November 1998

Ramada Plaza Hotel

Old Town Alexandria, VA

## ATTENDEES

Patricia Alderman  
US Army Community & Family Support  
CFSC-SF-L, 4700 King St.  
Alexandria, VA 22302-4418  
Phone: 703-681-7205 / DSN: 761-7205  
Fax: 703-681-7249 / DSN: 761-7249  
Email: aldermap@hoffman-cfsc.army.mil

Elizabeth Bircher  
EBSCO Federal Government Division  
6800 Versar Center, Suite 131  
Springfield, VA 22151  
Phone: 757-867-6377 / DSN:  
Fax: 757-867-6377 / DSN:  
Email: bircher@ebSCO.com

Mary Aldous  
Naval Health Research Center  
P.O. Box 85122  
San Diego, CA 92186-5122  
Phone: 619-553-8425 / DSN: 553-8425  
Fax: 619-553-9389 / DSN: 553-9389  
Email: aldous@nhrc.navy.mil

Eva Bjorck  
Swedish Defense Research Establishment  
P. O. Box 1165  
Linkoping, SE 58111  
Phone: 46-13-378180 / DSN:  
Fax: 46-13-378187 / DSN:  
Email: evabjo@Lin.foa.se

Patricia Ames  
Naval Research Laboratory Library  
Code 5227  
Washington, DC 20375-5320  
Phone: 202-767-3367 / DSN: 297-3367  
Fax: 202-404-8176 / DSN: 297-8176  
Email: pata@library.nrl.navy.mil

Sandra Bradley  
Naval Air Warfare Center, Weapons Division  
1 Admin Circle  
China Lake, CA 93555-6100  
Phone: 760-939-1017 / DSN:  
Fax: 760-939-0606 / DSN:  
Email:  
sandy\_bradley@IMDGW.CHINALAKE.NAVY.MIL

Alice Anderson  
Information International Associates, Inc.  
152 Ridgeway Center  
Oak Ridge, TN 37831  
Phone: 423-986-7725 / DSN:  
Fax: 423-481-0390 / DSN:  
Email: aanderso@infointl.com

Margaret Braly  
National Defense University  
300 5th Avenue, SW, Bldg. 62, Fort McNair  
Washington, DC 20319-5066  
Phone: 202-685-3966 / DSN: 325-3966  
Fax: 202-685-3733 / DSN:  
Email: BralyM@ndu.edu

Mary Barravecchia  
Naval Undersea Warfare Center Division, Newport  
Technical Library, Code 5441  
Newport, RI 02841  
Phone: 401-832-4338 / DSN: 920-4338  
Fax: 401-832-3699 / DSN: 920-3699  
Email: BarravecchiaMN@NPT.NUWC.NAVY.MIL

Margie Buchanan  
HQ Air Force Libraries  
10100 Reunion Place Ste. 502  
San Antonio, TX 78216-4138  
Phone: 210-652-4589 / DSN:  
Fax: 210-652-7039 / DSN:  
Email: buchanam@agency.afsv.af.mil

Marsha Buffin  
Holloman Air Force Base Library-Hawkeye  
Management  
955 First Street  
Holloman AFB, NM 88330-8037  
Phone: 505-475-3501 / DSN: 867-3939  
Fax: 505-475-5340 / DSN:  
Email: Marsha.Buffin@Holloman.af.mil

Edwin Burgess  
Combined Arms Research Library  
250 Gibbon Avenue  
Fort Leavenworth, KS 66027  
Phone: 913-758-3171 / DSN: 585-3171  
Fax: 913-758-3014 / DSN: 585-3014  
Email: burgesse@leav-emh1.army.mil

Jane Butler  
Pentagon Library  
110 Century Drive, #6107  
Alexandria, VA 22304  
Phone: 703-695-2957 / DSN:  
Fax: 703-693-3731 / DSN:  
Email: butlerjc@erols.com

Blossom Calistro  
Defense Ammunition Center  
SIOAC-ESM, 3700 Army Depot Road  
Savanna, IL 61074  
Phone: 815-273-8707 / DSN: 585-8707  
Fax: 815-273-8705 / DSN: 585-8705  
Email: CALISTRO@DAC-EMH1.ARMY.MIL

Kristen Campbell  
11 SPTG/SVMG  
410 Tinker Street  
Bolling AFB  
Washington, DC 20332-0703  
Phone: 202-767-6067 / DSN:  
Fax: 202-404-8526 / DSN:  
Email: kcampbel@mail.bolling.af.mil

Gordon Cheatham  
Eighth Army, AC of S, G-1, MWR  
Unit # 1515236, EAGA-MWR-RL  
APO, AP 96205-0009  
Phone: 011-822-7915-7222 / DSN: 725-7222  
Fax: 011-822-796-4984 / DSN: 725-5420  
Email: cheathamg@usfk.korea.army.mil

Barbara Christine  
USACFSC (CFSC-SF-L)  
4700 King Street  
Alexandria, VA 22302-4418  
Phone: 703-681-7208 / DSN: 761-7208  
Fax: 703-681-7249 / DSN: 761-7249  
Email: christib@hoffman-cfsc.army.mil

Julie Church  
Hawkeye Management - Randolph AFB Library  
12 SPTG/SVMG; Bldg. 598 591 F Street East  
Randolph AFB, TX 78150-4405  
Phone: 210-652-2617 / DSN:  
Fax: 210-652-3261 / DSN:  
Email: juliec@gslis.utexas.edu

Brenda Corbin  
U.S. Naval Observatory  
3450 Massachusetts Ave., NW  
Washington, DC 20392-5420  
Phone: 202-762-1463 / DSN:  
Fax: 202-762-1083 / DSN:  
Email: bgc@sicon.usno.navy.mil

Ruth Corn  
Asia-Pacific Center for Securities Studies  
2255 Kuhio Ave., Ste. 1900  
Honolulu, HI 96815  
Phone: 808-971-8940 / DSN:  
Fax: 808-971-8941 / DSN:  
Email: cornr@apcss.org

Cynthia Cornelius  
FL 4528 Base Library  
210 Missile Avenue  
Minot AFB, ND 58705-5026  
Phone: 701-723-3919 / DSN: 453-3919  
Fax: 701-727-9850 / DSN:  
Email: library@minot.af.mil

Jane Crabill  
USASOC/USAJFKSWCS  
Bldg. D-3915, Rm C287  
Fort Bragg, NC 28307-5200  
Phone: 910-396-3958 / DSN: 236-3958  
Fax: 910-432-7788 / DSN: 239-7788  
Email: crabillj@soc.mil

Myra Craig  
U. S. Army Corps of Engrs.  
20 Massachusetts Ave. NW  
Washington, DC 20314  
Phone: 202-761-0458 / DSN:  
Fax: 202-761-4436 / DSN:  
Email: MYRA.J.CRAIG@HQ02.usace.army.mil

Charlotte Dinger  
Navy Personnel Research & Development Ctr  
Code 034 Library, 53335 Ryne Rd.  
San Diego, CA 92152-7250  
Phone: 619-553-7846 / DSN:  
Fax: 619-553-7843 / DSN:  
Email: dinger@nprdc.navy.mil

Alice Cranor  
4912 Rockingham Lane  
Bowie, MD 20715  
Phone: 301-262-4952 / DSN:  
Fax: / DSN:  
Email: atcranor@erols.com

Lorna Dodt  
National Defense University  
300 5th Avenue, SW, Bldg. 62, Fort McNair  
Washington, DC 20319-5066  
Phone: 202-685-3421 / DSN:  
Fax: 202-685-3733 / DSN:  
Email: dodtl@ndu.edu

Patricia Daragan  
US Coast Guard Academy  
54 Edgewood Drive  
Westbrook, CT 06498  
Phone: 860-444-8553 / DSN:  
Fax: 860-444-8516 / DSN:  
Email: pdaragan@exmail.uscga.edu

Pamala Doffek  
16 SVS/SVMG  
443 Cody Avenue  
Hurlburt Field, FL 32544-1958  
Phone: 850-884-5363 / DSN: 579-5363  
Fax: 850-884-6050 / DSN: 579-6050  
Email: doffekp@hurlburt.af.mil

Bonnie Davis  
Navy Experimental Diving Unit  
321 Bullfinch Rd.  
Panama City, FL 32407-7015  
Phone: 850-230-3100 / DSN: 436-4351  
Fax: 850-230-3226 / DSN:  
Email: researcher@iname.com

James Dorsey  
Defense Technical Information Center  
8725 John J. Kingman Road, Suite 0944  
Fort Belvoir, VA 22060-6218  
Phone: 703-767-9156 / DSN: 427-9156  
Fax: 703-767-9174 / DSN: 427-9174  
Email: jdorsey@dtic.mil

Martha Davis  
US Army Command & Staff College  
250 Gibbon Avenue  
Leavenworth, KS 66027-2314  
Phone: 913-758-3033 / DSN: 585-3033  
Fax: 913-758-3014 / DSN: 585-3014  
Email: davism1@leav-emh1.army.mil

Dale Eliasson  
Center for Army Analysis  
8120 Woodmont Avenue  
Bethesda, MD 21801  
Phone: 301-295-1041 / DSN: 295-1041  
Fax: 301-295-5110 / DSN: 295-5110  
Email: eliasson@caa.army.mil

Ron Dial  
Air University Library  
600 Chennault Circle  
Maxwell AFB, AL 36112-6484  
Phone: 334-953-2347 / DSN: 493-2347  
Fax: / DSN:  
Email: rdial@max1.au.af.mil

Carol Emery  
HQ ACC/SVPC  
220 Sweeney Blvd., Suite 313  
Langley AFB, VA 23665-2798  
Phone: 757-764-4108 / DSN: 574-4108  
Fax: 757-764-3893 / DSN: 574-3893  
Email: carol.emery@langley.af.mil

Anne Foreman  
Redstone Scientific Information Center  
AMSAM-RD-OB-R  
Redstone Arsenal, AL 35640  
Phone: 256-955-7744 / DSN: 645-7744  
Fax: 256-842-0990 / DSN: 788-0990  
Email: aforema@redstone.army.mil

Alice Gorshenin  
469 ABC/SVMG  
Unit 7415, Box 56  
APO, AE 09050  
Phone: 011-49-69-699-6494 / DSN: 330-6494  
Fax: 011-49-69-699-8274 / DSN: 330-8274  
Email: alice.gorshenin@rheinmain.af.mil

Mary Friedline  
US Army Corps of Engineers  
20 Massachusetts Ave, NW, Bldg 3119  
Washington, DC 20314  
Phone: 202-761-7464 / DSN:  
Fax: 202-761-4436 / DSN:  
Email:

Barbara Green  
21st Services Squadron Base Librarian  
201 W. Stewart  
Peterson AFB, CO 80914-1600  
Phone: 719-556-7643 / DSN: 834-7643  
Fax: 719-556-6752 / DSN: 834-6752  
Email:

Julie Gibson  
Defense Technical Information Center  
8725 John J. Kingman Road, Suite 0944  
Fort Belvoir, VA 22060-6218  
Phone: 703-767-8061 / DSN: 427-8061  
Fax: 703-767-8065 / DSN: 427-8065  
Email: jgibson@dtic.mil

Diane Grip  
Washington Navy Ship Yard  
Bldg. 213, 1200 First St., S. E.  
Washington, DC 20303-0001  
Phone: 202-863-3426 / DSN:  
Fax: 202-488-0271 / DSN:  
Email:

Eleanor Gildersleeve  
Air Force Cambridge Research Laboratory  
Research Library, Bldg. 1103, 5 Wright St.  
Hanscom AFB, MA 01731-3004  
Phone: 781-377-4895 / DSN:  
Fax: 781-377-5627 / DSN:  
Email: gildersleeve@plh.af.mil

Margaret Groner  
Defense Language Institute  
Aiso Library  
Presidio of Monterey, CA 93944  
Phone: 831-242-5140 / DSN: 878-5140  
Fax: 831-242-5816 / DSN: 878-5816  
Email: gronerm@pom-emh1.army.mil

Gay Goethert  
AEDC Technical Library  
100 Kindel Dr., Suite C-212  
Arnold AFB, TN 37389-3212  
Phone: 340-4429 / DSN:  
Fax: 340-5421 / DSN:  
Email: goethert@hap.arnold.af.mil

Pat Gross  
HQ AACC/SVP  
220 Sweeney Blvd., Suite 313  
Langley AFB, VA 23665-2798  
Phone: 757-764-4108 / DSN: 574-4108  
Fax: 757-764-3893 / DSN: 574-3893  
Email: patricia.gross@langley.af.mil

Anita Goodman  
Air University Library  
600 Chennault Circle  
Maxwell AFB, AL 36112  
Phone: 334-953-8301 / DSN: 493-8301  
Fax: 334-953-2329 / DSN: 493-2329  
Email: sgoodman@max1.au.af.mil

Helen Haltzel  
Defense Systems Management College  
9820 Belvoir Rd.  
Ft. Belvoir, VA 22060-5565  
Phone: 703-805-4555 / DSN:  
Fax: 703-805-3443 / DSN:  
Email: haltzelh@dsmc.dsm.mil

Charles Hamilton  
National Imagery and Mapping Agency  
4600 Sangamore Road  
Bethesda, MD 20816  
Phone: 301-227-2108 / DSN:  
Fax: 301-227-5059 / DSN:  
Email:

Ruth Hennessy  
US Naval Academy  
589 McNair Rd.  
Annapolis, MD 21402-5029  
Phone: 410-293-6908 / DSN: 281-6908  
Fax: 410-293-6908 / DSN: 281-3669  
Email: hennessy@nadm.navy.mil

Marcia Hanna  
Defense Technical Information Center  
8725 John J. Kingman Rd. Suite 0944  
Fort Belvoir, VA 22060-6218  
Phone: 703-767-8062 / DSN: 427-8062  
Fax: 703-767-8065 / DSN: 427-8065  
Email: mhanna@dtic.mil

David Hiebert  
Arnold Engineering Development Center  
AEDC/HO, 100 Kindel Drive, Suite B-330  
Arnold AFB, TN 37389-2330  
Phone: 931-454-5308 / DSN: 340-5308  
Fax: 931-454-3639 / DSN: 340-3693  
Email: hiebert@hap.arnold.af.mil

Richard Hanusey  
US Army, Pacific, HQ  
DCSPER, CFAD  
Fort Shafter, HI 96858  
Phone: 808-655-9269 / DSN: 455-9269  
Fax: 808-655-6375 / DSN:  
Email: hanuseyr@schofield-emh1.army.mil

Michael Higgins  
National Defense University  
300 5th Avenue, SW, Bldg. 62, Fort McNair  
Washington, DC 20319-5066  
Phone: 202-685-2383 / DSN:  
Fax: 202-685-3733 / DSN:  
Email: Higginsm@ndu.edu

Kenneth Hedman  
US Military Academy  
USMA Library  
West Point, NY 10996-1799  
Phone: 914-938-2209 / DSN: 688-2209  
Fax: 914-938-3752 / DSN: 688-3752  
Email: uk9088@exmail.usma.edu

Gail Hodge  
HQ AFMC/SVPL  
4375 Chidlaw Road, Ste. 6  
Wright-Patterson AFB, OH 45433-5006  
Phone: 937-656-0982 / DSN: 986-0982  
Fax: 937-257-5962 / DSN: 787-5962  
Email: hodgeg@zhtvhq.afsv.af.mil

Kathleen Heincer  
Pentagon Library  
P.O. Box 46584  
Washington, DC 20310-6605  
Phone: 703-697-1636 / DSN: 227-1636  
Fax: 703-693-6543 /  
Email: heinckl@hqda.army.mil

Randall Hopkins  
EBSCO Information Services  
6800 Versar Ctr, Suite 131  
Springfield, VA 22151  
Phone: 703-578-1400 / DSN:  
Fax: 703-578-1400 / DSN:  
Email: rhopkins@ebSCO.com

Jeffrey Helmers  
National Imagery and Mapping Agency  
ISLO N-36 4600 Sangamore RD  
Bethesda, MD 20816-5003  
Phone: 202-863-3760 / DSN:  
Fax: 202-863-3144 / DSN:  
Email: helmersj@nima.mil

Jean Hort  
Navy Department Library  
901 M Street, SE, WNY #44  
Washington, DC 20374-5060  
Phone: 202-433-7836 / DSN: 288-7836  
Fax: 202-433-9553 / DSN: 288-9553  
Email: jhort@nhc.navy.mil



Layne Huseth  
Naval Postgraduate School  
141 Dyer Road, Room 259  
Monterey, CA 93943  
Phone: 831-656-2341 / DSN: 878-2341  
Fax: 831-656-5137 / DSN: 878-5137  
Email: lhuseth@nps.navy.mil

Helen Kiss  
Air University Library  
600 Chennault Circle  
Maxwell AFB, AL 36112  
Phone: 334-953-2508 / DSN: 493-2508  
Fax: 334-953-2329 / DSN: 493-2329  
Email: tkiss@max1.au.af.mil

Phillip Ip  
51SVS/SVMG USAF  
Unit 2065, Bldg. 921  
APO, AP 96278-2065  
Phone: 011-82-333-661-9195 / DSN: 784-9195  
Fax: 011-82-333-661-2695 / DSN: 784-2695  
Email: phill@lava.net

Bonnie Klein  
Defense Technical Information Center  
8725 John J. Kingman Road, Suite 0944  
Fort Belvoir, VA 22060-6218  
Phone: 703-767-8037 / DSN: 427-8037  
Fax: 703-767-8032 / DSN: 427-8032  
Email: bklein@dtic.mil

Jean Jacobsen  
National Naval Medical Center  
8901 Wisconsin Avenue  
Bethesda, MD 20889-5600  
Phone: 301-295-1185 / DSN: 295-1185  
Fax: 301-295-6001 / DSN: 295-6001  
Email: bth0@bth20.med.navy.mil

George Klim  
Foreign Science Library  
2312 Far Hills Ave., #349  
Dayton, OH 45419  
Phone: 937-255-5660 / DSN:  
Fax: 937-255-6550 / DSN:  
Email: georgek@siscom.net

Carol Jacobson  
Defense Technical Information Center  
8725 John J. Kingman Road, Suite 0944  
Fort Belvoir, VA 22060-6218  
Phone: 703-767-9167 / DSN: 427-9167  
Fax: 703-767-9119 / DSN: 427-9119  
Email: cjacobso@dtic.mil

James Knight  
US Army Center of Military History  
103 Third Avenue, Attn: Library  
Fort McNair  
Washington, DC 20319-5058  
Phone: 202-685-4114 / DSN:  
Fax: 202-685-4593 / DSN:  
Email: knighjb@hqda.army.mil

Judith James  
Joint Warfare Analysis Center  
1835 Dahlgren Rd., Code J222  
Dahlgren, VA 22448  
Phone: 540-653-3835 / DSN:  
Fax: 540-653-1860 / DSN:  
Email: jjames@jwac.com

Bohdan Kohutiak  
US Army War College Library  
122 Forbes Avenue  
Carlisle, PA 17013-5220  
Phone: 717-245-4300 / DSN:  
Fax: 717-245-3323 / DSN:  
Email: kohutiakb@awc.carlisle.army.mil

George Jupin  
Defense Intelligence Agency  
MCA-4/Bldg. 6000  
Bolling AFB  
Washington, DC 20340-5100  
Phone: 202-231-3777 / DSN:  
Fax: 202-231-3838 / DSN:  
Email: Afjupge@dia.osis.gov

Carla Krusinga  
AFCENT Library  
254th BSB, Unit 21601  
APO, AE 09703  
Phone: 01131-45-5262469 / DSN:  
Fax: 01131-45-5262668 / DSN:  
Email: kruizingac@254bsb.schinnen.army.mil

James Lacombe  
USMC MCB Camp S.D. Butler  
Library Processing Center, MCB Camp S.D. Butler,  
Unit 35023  
FPO, AP 96373-5023  
Phone: 011-81-6117-45-2596 / DSN: 315-654-3208  
Fax: 315-645-2596 / DSN:  
Email: lacombej@okinawa.usmc.mil

Tracy Landfried  
US Army Research Laboratory  
Bldg 4600  
Aberdeen Proving Ground, MD 21005-5066  
Phone: 410-306-0628 / DSN: 458-0628  
Fax: 410-306-0630 / DSN: 458-0630  
Email: tlandfri@arl.mil

Robert Lane  
Air University Library  
600 Chennault Circle  
Maxwell AFB, AL 36112-6424  
Phone: 334-953-2606 / DSN: 493-2606  
Fax: 334-953-6939 / DSN: 493-6939  
Email: rlane@max1.au.af.mil

Tina Lavato  
National Defense University  
300 5th Avenue, SW, Bldg. 62, Fort McNair  
Washington, DC 20319-5066  
Phone: 202-685-2390 / DSN:  
Fax: 202-685-3733 / DSN:  
Email: Lavatot@ndu.edu

Sharon Lenius  
Army National Guard  
8510 Cinder Bed Road, P. O. Box 8510  
Newington, VA 22122-8510  
Phone: 703-339-4901 / DSN: 328-0651  
Fax: 703-339-9492 / DSN:  
Email: leniussa@pmorcas-arng.ngb.army.mil

Lise-Lotte Lindskog  
Celsius Tech AB  
Nottov 6  
Jarfalla, Sweden S-17588  
Phone: 46-8580-85007 / DSN:  
Fax: 46-8580-87223 / DSN:  
Email: lili@celsiustech.se

Alta Linthicum  
National Defense University  
300 5th Avenue, SW, Bldg. 62, Fort McNair  
Washington, DC 20319-5066  
Phone: 202-685-3971 / DSN: 325-3952  
Fax: 202-685-3733 / DSN: 325-3733  
Email: linthicuma@ndu.edu

Arlene Luster  
HQ Pacific Air Forces  
25E Street, Ste. C 100  
Hickman AFB, HI 96853-5407  
Phone: 808-449-2209 / DSN:  
Fax: 808-448-9252 / DSN:  
Email: luster@pacaf.afsv.af.mil

Lori Madonna  
HQ US Special Operations Command  
7701 Tampa Point Blvd.  
MacDill AFB, FL 33621  
Phone: 813-828-5100 / DSN: 968-5100  
Fax: 813-828-8690 / DSN:  
Email: madonnl@socam.mil

Mary Maroney  
The MITRE Corporation, M/S W527  
1820 Dolley Madison Blvd.  
McLean, VA 22102  
Phone: 703-883-5445 / DSN:  
Fax: 703-883-1332 / DSN:  
Email: mmaroney@mitre.org

Audrey Marques  
HQ AMC/SVPFL  
503 Ward Drive  
Scott AFB, IL 62225-5335  
Phone: 618-256-4742 / DSN: 576-4742  
Fax: 618-256-6628 / DSN: 576-6628  
Email: audrey.marques@scott.af.mil

Kathryn Marshall  
Air Force Weather Technical Library  
151 Patton Avenue, Room 120  
Asheville, NC 28801-5002  
Phone: 828-271-4277 / DSN:  
Fax: 828-673-9019 / DSN:  
Email: marshalk@afcc.af.mil

Sherry Massie  
Joint Services SERE Agency  
Library, 10244 Burbeck Road, Bldg 358  
Fort Belvoir, VA 22060-5805  
Phone: 703-704-2203 / DSN:  
Fax: 703-704-2231 / DSN:  
Email: jssalib1@ix.netcom.com

Michael Morrison  
National Defense University  
Library, Building 62, Fort McNair  
Washington, DC 20319  
Phone: 202-685-3733 / DSN: 325-2384  
Fax: 325-2384 / DSN: 325-3733  
Email: morrisonj@ndu.edu

Kathryn Mayall  
Post Library  
Walter Reed Army Medical Center Bldg. 11 Room G-92  
Washington, DC 20307  
Phone: 202-782-6315 / DSN:  
Fax: 202-782-3036 / DSN:  
Email:

Joyce Neidlinger  
Atlantic Intelligence Command  
7941 Blandy Road, Suite 100  
Norfolk, VA 23551-2498  
Phone: 757-836-7138 / DSN: 836-7138  
Fax: 757-471-3337 / DSN: 836-5530  
Email: neidling@acom.mil

Kimberly Megginson  
US Navy  
Naval Station Library, PSC 1008 Box 3015  
FPO, PR 34051-3015  
Phone: 787-865-4353 / DSN:  
Fax: 787-865-4353 / DSN:  
Email: nkem1@navtap.navy.mil

Barbara Nekoba  
Marine Corps Intelligence Activity  
3300 Russell Road, Suite 250  
Quantico, VA 22134-5011  
Phone: 703-784-6168 / DSN: 278-6168  
Fax: 703-784-2026 / DSN: 278-2026  
Email: nekobab@quantico.usmc.mil

Theodore Miles  
Air Force Research Laboratory  
Det-7, AFRL/PROI (Library), 6 Draco Drive, Bldg 8349  
Edwards AFB, CA 93524-7130  
Phone: 805-275-5516 / DSN: 525-5516  
Fax: 805-275-6070 / DSN: 525-6070  
Email: ted\_miles@ple.af.mil

Sue Neufeld  
US Air Force Academy Libraries  
HQ USAFA/DFSELR  
USAF Academy, CO 80840  
Phone: 719-333-4406 / DSN: 333-4406  
Fax: 719-333-2999 / DSN: 333-2999  
Email: neufeldse.dfsel@usafa.af.mil

Gloria Miller  
Hurlburt Base Library  
443 Cody Avenue  
Hurlburt Field, FL 32544  
Phone: 850-884-7143 / DSN:  
Fax: 850-884-6050 / DSN:  
Email: millerga@hurlburt.af.mil

Teri Newsome  
U.S. Army Chaplain Center and School  
Library, 10100 Lee Road  
Fort Jackson, SC 29207-7090  
Phone: 803-751-8828 / DSN:  
Fax: 803-751-8740 / DSN:  
Email: newsomet@usachcs-emh1.army.mil

Brian Moher  
USAG-HI  
DCA/CRD/Sgt. Yano Library  
Schofield Barracks, HI 96857  
Phone: 808-655-8000 / DSN: 455-9269  
Fax: 808-655-6375 / DSN:  
Email: bdmohher@cwix.com

Gail Nicula  
Armed Forces Staff College  
7800 Hampton Blvd.  
Norfolk, VA 23511-1702  
Phone: 757-444-5155 / DSN: 564-5155  
Fax: 757-444-2053 / DSN: 564-2053  
Email: niculag@afscmail.afsc.edu

Carolyn Orr  
Armed Forces Staff College  
7800 Hampton Blvd.  
Norfolk, VA 23511-1702  
Phone: 757-444-5152 / DSN: 564-5152  
Fax: 757-444-2053 / DSN: 564-2053  
Email: orrc@afscmail.afsc.edu

Marjorie Powell  
Defense Technical Information Center  
8725 John J. Kingman Road, Suite 0944  
Fort Belvoir, VA 22060-6218  
Phone: 703-767-9107 / DSN: 427-9107  
Fax: 703-767-9119 / DSN: 427-9119  
Email: mpowell@dtic.mil

Anita Parins  
National Imagery and Mapping Agency  
WNY, Bldg. 213, 1200 First St., SE  
Washington, DC 20303-0001  
Phone: 202-863-3227 / DSN:  
Fax: 202-863-3144 / DSN:  
Email: parinsa@nima.mil

Pat Powell  
Information International Associates, Inc.  
152 Ridgeway Center  
Oak Ridge, TN 37830  
Phone: 423-481-0388 / DSN:  
Fax: 423-481-0390 / DSN:  
Email: ppowell@infointl.com

Janet Parker  
Beale AFB  
17849 16th Street  
Beale AFB, GA 95903  
Phone: 530-634-2033 / DSN: 368-2033  
Fax: 530-634-2032 / DSN: 368-2032  
Email: janet.parker@beale.af.mil

Mary Przewlocki  
The MITRE Corporation  
1820 Dolley Madison Blvd., WSW200  
McLean, VA 22102  
Phone: 703-883-5356 / DSN:  
Fax: 703-883-5684 / DSN:  
Email: mprzewlocki@mitre.org

George Patail  
Marshall Center Research Library  
Unit 24502, Box 68  
APO, AE 09053  
Phone: 49-8821-750563 / DSN: 440-2563  
Fax: 49-8821-750516 / DSN: 440-2516  
Email: patailg@marshallcenter.org

Charles A. Ralston  
HQ US Army Forces Command  
1777 Hardee Avenue SW  
Fort McPherson, GA 30330-1062  
Phone: 404-464-5735 / DSN: 367-5735  
Fax: 404-464-5785 / DSN: 367-5785  
Email: ralstonc@forscom.army.mil

Marlow Peters  
Air University Library  
600 Chennault Circle  
Maxwell AFB, AL 36108  
Phone: 334-953-8302 / DSN: 493-8302  
Fax: 334-953-2329 / DSN: 493-2329  
Email: pmarlow@max1.au.af.mil

Carol Ramkey  
Marine Corps University Library  
2040 Broadway St.  
Quantico, VA 22134-5107  
Phone: 703-784-4409 / DSN: 278-4409  
Fax: 703-784-4306 / DSN: 278-4306  
Email: ramkeyce@quantico.usmc.mil

Carla Pomager  
Redstone Scientific Information Center  
AMSAM-RD-OB-R  
Redstone Arsenal, AL 35898-5000  
Phone: 256-876-9309 / DSN: 746-9309  
Fax: 256-842-7415 / DSN: 788-7415  
Email: cpomager@redstone.army.mil

Debbie Reed  
Pentagon Library  
P.O. Box 46584  
Washington, DC 20310-6605  
Phone: 703-697-4301 / DSN: 227-4301  
Fax: 703-693-3731 / DSN: 223-3731  
Email: reeddl@hqda.army.mil

Maxine Reneker  
Naval Postgraduate School, Dudley Knox Library  
411 Dyer Road  
Monterey, CA 93943  
Phone: 831-656-2341 / DSN: 878-2341  
Fax: 831-656-5137 / DSN: 878-5137  
Email: mrener@nps.navy.mil

Ann Ross  
National Reconnaissance Office  
5638 North 20th Street  
Arlington, VA 22205  
Phone: 703-808-5756 / DSN:  
Fax: 703-808-5757 / DSN:  
Email: rossann@nro.mil

Linda Resler  
Marine Corps Research Center  
2040 Broadway St.  
Quantico, VA 22134  
Phone: 703-784-4838 / DSN: 278-4838  
Fax: 703-784-4306 / DSN: 278-4306  
Email: resler@quantico.usmc.mil

Pat Rossi  
Yokota AF Base/FL 5209 374 SPTG/SVMG Japan  
PSC 78 Box 209  
APO, AP 96326  
Phone: 011-81-3117-55-7490 / DSN:  
Fax: 011-81-3117-55-3574 / DSN:  
Email: rossip@emh.yokota.af.mil

Lucrecia Robinson  
HQ ACC/SVPC  
220 Sweeney Blvd., Suite 313  
Langley AFB, VA 23665-2798  
Phone: 757-764-3399 / DSN: 574-3399  
Fax: 757-764-3893 / DSN: 574-3893  
Email: lou.robinson@langley.af.mil

Yolanda Rouse  
National Imagery and Mapping Agency  
4600 Sangamore Road  
Bethesda, MD 20816  
Phone: / DSN:  
Fax: / DSN:  
Email: rousey@nima.mil

Tom Rohmiller  
Air Force Research Laboratory  
Det-1, AFRL/WST, 2690 C Street, #4  
Wright-Patterson AFB, OH 45433-7411  
Phone: 937-257-1365, x403 / DSN:  
Fax: 937-696-2391 / DSN:  
Email: rohmilt@wl.wpafb.af.mil

Fred Rucker  
Barr Memorial Library  
Bldg. 400  
Fort Knox, KY 40121-5351  
Phone: 502-624-5351 / DSN: 464-5351  
Fax: 502-624-7528 / DSN: 464-7528  
Email: ruckerf@fknnox-emh3.army.mil

Nathan Rosenbaum  
Defense Technical Information Center  
8725 John J. Kingman Road, Suite 0944  
Fort Belvoir, VA 22060-6218  
Phone: 703-767-9091 / DSN: 427-9091  
Fax: / DSN:  
Email: nrosenba@dtic.mil

Suzanne Ryder  
Naval Air Warfare Center  
22269 Cedar Point Rd., Bldg. 407  
Patuxent River, MD 20670  
Phone: 301-342-1930 / DSN: 342-1930  
Fax: 301-342-1933 / DSN: 342-1933  
Email: rydersm@navair.navy.mil

Addie Ross  
Marine Corps Research Center  
2040 Broadway St.  
Quantico, VA 22134  
Phone: 703-784-4353 / DSN:  
Fax: 703-4306 / DSN: 278-4306  
Email: rossaj@quantico.usmc.mil

Robert Schnare  
US Naval War College  
686 Cushing Road  
Newport, RI 02841-1207  
Phone: 401-841-2641 / DSN: 948-2641  
Fax: 401-841-6491 / DSN: 948-6491  
Email: Schnarer@USNWC.EDU

Kathleen Schollenberger  
Naval Surface Warfare Center  
Naval Business Center  
Philadelphia, PA 19087  
Phone: 215-897-7816 / DSN: 443-7816  
Fax: 215-897-7816 / DSN: 443-7162  
Email: schollen@oasys.dt.navy.mil

Stephanie Smith  
Beale AFB  
17849 16th Street  
Beale AFB, GA 95903  
Phone: 530-634-2314 / DSN:  
Fax: 530-634-2032 / DSN:  
Email: stephanie.smith@beale.af.mil

Edward A. Scott  
USAF Academy Library  
2354 Fairchild Dr. Ste 3A10  
USAF Academy, CO 80840-6214  
Phone: 719-333-2590 / DSN: 333-2590  
Fax: 719-333-4754 / DSN: 333-4754  
Email: Scottea.dfsel@usafa.af.mil

Dale Snair  
Whiteman AFB Library  
750 Arnold Aven., Bldg. 527  
Whiteman AFB, MO 65305-5019  
Phone: 660-687-6240 / DSN: 975-6217  
Fax: 660-687-6240 / DSN: 975-6240  
Email: dale.snair@whiteman.af.mil

Linda Seibl  
NATO/SHAPE  
SHAPE INTL Library  
CMR 450 Box 7500  
APO, AE 09705  
Phone: 32-65-445630 / DSN: 423-5630  
Fax: 32-65-445650 / DSN: 423-5650  
Email: lseibl@pals.shape.army.mil

Laurie Stackpole  
Naval Research Laboratory  
Washington, DC 30375-5334  
Phone: 202-767-2359 / DSN:  
Fax: 202-767-3352 / DSN:  
Email: laurie.stackpole@nrl.navy.mil

Geraldine Shane  
Defense Technical Information Center  
8725 John J. Kingman Road, Suite 0944  
Fort Belvoir, VA 22060-6218  
Phone: 703-767-9108 / DSN: 427-9108  
Fax: 703-767-9119 / DSN: 427-9119  
Email: gshane@dtic.mil

Yvonne Stewart  
Redstone Scientific Information Center  
AMSAM-RD-OB-R  
Redstone Arsenal, AL 35898-5000  
Phone: 256-842-8436 / DSN: 788-8436  
Fax: 256-842-7415 / DSN: 788-7415  
Email: ystewar@redstone.army.mil

Arlene Shaw  
USA TRADOC Analysis Center  
Attn: ATRC-WSS-R  
White Sands Missile Range, NM 88002-5502  
Phone: 505-678-3135 / DSN: 258-3135  
Fax: 505-678-5104 / DSN: 258-5104  
Email: shawa@trac.wsmr.army.mil

Bryan Stoneburner  
Air Force Research Laboratory/Phillips Site  
3550 Aberdeen Ave., SE  
Albuquerque, NM 87117  
Phone: 505-846-4768 / DSN: 246-4768  
Fax: 505-846-4790 / DSN: 246-4790  
Email: stonebub@plk.af.mil

Pamela Shelton  
Casey Memorial Library  
Bldg. 2805 62nd & 761st TANK BN Avenue  
Fort Hood, TX 76544  
Phone: 254-287-0025 / DSN:  
Fax: 254-288-4029 / DSN:  
Email: sheltonp@hood-emh3.army.mil

Kristen Stowe  
National Imagery and Mapping Agency  
WNY, Bldg. 213, 1200 First St., SE  
Washington, DC 20303-0001  
Phone: 202-863-3227 / DSN:  
Fax: 202-863-3144 / DSN:  
Email: stowek@nima.mil

Sherry Swehla  
National Imagery and Mapping Agency  
12310 Sunrise Valley Drive  
Reston, VA 20191-3449  
Phone: 703-264-7281 / DSN:  
Fax: 703-264-3134 / DSN:  
Email: swchlas@nima.mil

Wynne Tysdal  
National Defense University  
300 5th Avenue, SW, Bldg. 62, Fort McNair  
Washington, DC 20319-5066  
Phone: 202-685-2386 / DSN:  
Fax: 202-685-3733 / DSN:  
Email: tysdalw@ndu.edu

Susan Tarbell  
Air Force Weather Technical Library  
151 Patton Avenue  
Asheville, NC 28801  
Phone: 828-271-4277 / DSN:  
Fax: 828-271-4334 / DSN:  
Email: tarbells@afccc.af.mil

Susan Vlachos  
National Naval Medical Center  
8901 Wisconsin Avenue  
Bethesda, MD 20889-5600  
Phone: 301-295-0185 / DSN: 295-0185  
Fax: 301-295-6001 / DSN: 295-6001  
Email: SAVlachos@bth20.med.navy.mil

Cindy Tews  
Kadena Base Library  
FL 5270 UNIT 5135 BOX 20  
APO, AP 96368  
Phone: 011-81-611-734-1502 / DSN:  
Fax: 011-81-611-734-3873 / DSN:  
Email: cynthia.tews@kadena.af.mil

Katharine Wallace  
Naval Surface Warfare Center, Dahlgren Division  
17320 Dahlgren Road  
Dahlgren, VA 22448-5020  
Phone: 540-653-8994 / DSN: 249-8994  
Fax: 540-653-3013 / DSN: 249-3013  
Email: wallacekr@nswc.navy.mil

Bryan Thompson  
Naval Facilities Engineering Service Center  
1100 23rd Avenue  
Port Hueneme, CA 93043-4370  
Phone: 805-982-1124 / DSN: 551-1124  
Fax: 805-982-1409 / DSN: 551-1409  
Email: thompsonbp@nfesc.navy.mil

Lily Waters  
Pentagon Library  
P.O. Box 46584  
Washington, DC 20310-6605  
Phone: 703-697-4301 / DSN: 227-4301  
Fax: 703-693-3731 / DSN: 223-3731  
Email: waterla@hqda.army.mil

Sue Thompson  
US Army Fort Myer Library  
210 McNair Rd.  
Arlington, VA 22211  
Phone: 703-696-3608 / DSN:  
Fax: 703-696-8587 / DSN:  
Email: Thompsons@fmnc.army.mil

Jane Watson  
Marine Corps University Library  
2040 Broadway Street  
Quantico, VA 22134-5107  
Phone: 703-784-4409 / DSN: 278-4409  
Fax: 703-784-4989 / DSN: 278-4989  
Email: watsonja@quantico.usmc.mil

Carolyn Turner  
National Defense University  
300 5th Avenue, SW, Bldg. 62, Fort McNair  
Washington, DC 20319-5066  
Phone: 685-3964 / DSN:  
Fax: / DSN:  
Email: turnerc@ndu.edu

Richard Werking  
Nimitz Library  
US Naval Academy  
Annapolis, MD 21402  
Phone: 410-293-6901 / DSN: 281-6901  
Fax: 410-293-3669 / DSN: 281-3669  
Email: rwerking@nadn.navy.mil

Connie Wiley  
Joint Warfare Analysis Center  
Code 22/Library 18385 Frontage Rd.  
Dahlgren, VA 22448  
Phone: 540-653-8385 / DSN: 249-8385  
Fax: 540-653-1860 / DSN:  
Email: cwiley@jwac.com

Barbara Wrinkle  
HQ AFSVA/SVPAL  
10100 Reunion Place, Suite 502  
San Antonio, TX 78216-4138  
Phone: 210-652-4589 / DSN:  
Fax: 210-652-7039 / DSN:  
Email: wrinkleb@agency.afsv.af.mil

Dawn Williams  
Dyess AFB Library  
242 Commissary Road  
Dyess AFB, TX 79607  
Phone: 915-696-5002 / DSN: 461-5002  
Fax: 915-696-1501 / DSN: 461-1501  
Email: dawn.williams@dyess.af.mil

Barbara Yoakum  
US Naval Academy  
589 McNair Road  
Annapolis, MD 21402-5029  
Phone: 410-293-6928 / DSN: 281-6928  
Fax: 410-293-3669 / DSN: 281-3669  
Email: yoakum@nadn.navy.mil

Kathy Wright  
SPAWAR Systems Center  
Technical Library, Code D0274, 53560 Hull Street  
San Diego, CA 92152-5001  
Phone: 619-553-4900 / DSN: 553-4900  
Fax: 619-553-4882 / DSN: 553-4882  
Email: wright@spawar.navy.mil

Aleksandra Zajackowski  
Army and Navy Club  
901 17th Street, NW  
Washington, DC 20006  
Phone: 202-721-2096 / DSN:  
Fax: 202-296-8787 / DSN:  
Email: anclibr@pop.dn.net





## **Military Librarians Workshop '98**

42<sup>nd</sup> Annual Military Librarians Workshop

17-19 November 1998

Ramada Plaza Hotel

Old Town Alexandria, VA

### **ADDENDUM**

Carolyn Baker  
Seymour Johnson AFB Library  
1755 Wright Brothers Avenue, Building 3622  
Goldsboro, NC 27531-2461  
Phone: 919-736-5739 / DSN: 488-5739  
Fax: 919-705-2927 / DSN: 488-2927  
Email:

John Padgett  
Office of Naval Intelligence  
4251 Suitland Road  
Washington, DC 20395  
Phone: 301-669-4389 / DSN:  
Fax: 301-669-4282 / DSN:  
Email: jpadgett@nmic.navy.mil

Hoyt Galloway  
Walter Reed Army Medical Center  
Building 2, Room 2G, MEDLIB  
Washington, DC 20307-5001  
Phone: 202-782-9899 / DSN: 662-9899  
Fax: 202-782-6803 / DSN: 662-6803  
Email: hoyt\_galloway@wramc1.amedd.army.mil

Fred Rettenmaier  
Naval Research Laboratory  
Code 5200  
Washington, DC 20375  
Phone: 202-767-5363 / DSN:  
Fax: 202-767-3352 / DSN:  
Email: fredr@library.nrl.navy.mil

B. Joyce Hardy  
The Aerospace Corporation  
2850 E. El Segundo Blvd.  
El Segundo, CA 90245  
Phone: 310-336-4886 / DSN:  
Fax: 310-336-2296 / DSN:  
Email: brenda.j.hardy@aero.org

Carol Lynne Stroh  
Tactical Training Group, Atlantic  
2132 Regulus Avenue  
Virginia Beach, VA 23461  
Phone: 757-433-7810 / DSN:  
Fax: 757-433-6833 / DSN:  
Email: ttgllib@infi.net

Erica Johns  
Office of Naval Intelligence  
4251 Suitland Road  
Washington, DC 20395  
Phone: 301-669-4389 / DSN:  
Fax: 301-669-4282 / DSN:  
Email: ejohns@nmic.navy.mil

Norma Thrower  
Navy Environmental Health Center  
2510 Walmer Avenue  
Norfolk, VA 23513-2617  
Phone: 757-462-5452 / DSN: 864-5452  
Fax: 757-444-4672 / DSN:  
Email: throwern@nehc.med.navy.mil

Dolores Wathen  
Office of Naval Intelligence  
4251 Suitland Road  
Washington, DC 20395  
Phone: 301-669-4270 / DSN:  
Fax: 301-669-4282 / DSN:  
Email: [dwathen@nmic.navy.mil](mailto:dwathen@nmic.navy.mil)



# Military Librarians Workshop '98

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## EVALUATION FORM

To assist in the planning of future workshops, please complete the following questionnaire and turn it in at the MLW Information/Registration Desk. Thank you.

1. Which of the following best describes your organizational affiliation? (CHECK ONE)

- |                               |  |
|-------------------------------|--|
| <input type="checkbox"/> Army | <input type="checkbox"/> Air Force                     |
| <input type="checkbox"/> Navy | <input type="checkbox"/> Canadian                      |
| <input type="checkbox"/> DoD  | <input type="checkbox"/> Other (Please specify.) _____ |

2. Which categories best describe your profession or current position?

- |  |   |  |
|--|---|--|
| <b>Type of Library</b>                                 | <b>Position</b>   |  |
| <input type="checkbox"/> Academic                      | <input type="checkbox"/> Computer/Info. Systems                     | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Base/Public                   | <input type="checkbox"/> Info. Specialist                           | <input type="checkbox"/> Management      |
| <input type="checkbox"/> Laboratory/Technical          | <input type="checkbox"/> Librarian [Performing multiple functions.] | <input type="checkbox"/> Tech. Services  |
| <input type="checkbox"/> Medical                       |   |  |
| <input type="checkbox"/> Other (Please specify.) _____ |   |  |

3. Please rate the quality of the following items:

	Excellent	Good	Fair	Poor	N/A
Speakers	_____	_____	_____	_____	_____
Meeting Rooms	_____	_____	_____	_____	_____
Hotel Accommodations	_____	_____	_____	_____	_____
Length of Breaks	_____	_____	_____	_____	_____
Breakfasts/Lunches/Breaks	_____	_____	_____	_____	_____
Reception	_____	_____	_____	_____	_____
Dutch Treat Dinners	_____	_____	_____	_____	_____
Dinner at Fort Belvoir	_____	_____	_____	_____	_____
An Afternoon at LoC	_____	_____	_____	_____	_____
CIA Tour	_____	_____	_____	_____	_____
DTIC Tour	_____	_____	_____	_____	_____
Other: (Please specify.)					
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Comments: \_\_\_\_\_  
 \_\_\_\_\_

4. What is your overall rating of the Workshop?

\_\_\_\_\_ Excellent    \_\_\_\_\_ Good    \_\_\_\_\_ Fair    \_\_\_\_\_ Poor

5. What aspect(s) of the Workshop would you most recommend, and why?

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6. We would appreciate any other comments/suggestions you have concerning this year's Workshop. What aspect(s) of the Workshop could be improved, and how?

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7. Please help us, help you. Indicate topics that you would like to see discussed at future workshops:

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8. I learned about this Workshop via (Please circle.):  
e-mail    SLA Web site    DTIC Digest    Military Librarian's Newsletter

I subscribe to the following discussion lists (Please circle.):  
MLW    Army    Navy    Air Force    DTIC    NASA    Other: \_\_\_\_\_

**Thank you for attending the 42<sup>nd</sup> Military Librarians Workshop  
And for taking the time to complete this survey.**

**SLA/MLD MILITARY LIBRARIANS WORKSHOP  
EXECUTIVE BOARD MEETING  
42ND MLW - 16 NOV 1998  
Alexandria, Virginia**

**SUMMARY:** Covered were past, present, and future workshops; workshop registration issues; issues remaining from the procedure manual, history, and CEU issue; and replacements for board members.

The meeting was called to order by the Workshop chair, Barbara Wrinkle, at 4:10 p.m. The agenda was presented by the Chair and approved by attendees. The Chair asked the attendees to introduce themselves. Attendees included:

**BOARD MEMBERS (Voting)**

Barbara Wrinkle, Workshop Chair  
Wendy Hill, SLA/MLD & MLW sec/treasurer  
Gerri Shane, 42nd MLW Host  
Gail Hodge, Air Force Representative  
Katherine Wallace, Navy/Marine Representative

**OTHERS (Non-Voting)**

Tom Rohmiller, SLA/MLD Chair  
Barbara J. Fox, SLA/MLD Chair elect  
Jane C. Butler, MLD Director  
Tracy Landfried, SLA/MLD Membership Chair

**ABSENT BOARD MEMBERS**

Janet Scheitle, 43rd MLW Host  
Alexandra Campbell, Army representative (voting)  
Samuel Alexander, Canada (voting)  
Janet Burke, Immediate Past Chair SLA/MLD  
Vacant DoD Representative

**Minutes and Treasurer's Report.**

The secretary gave approved minutes from the last executive board meeting to each voting member. The status of each tasking was reviewed and updated. Wendy Hill provided a brief report on the current status of the MLW special project fund as of 16 November 1998. \$400 from the 40th MLW seed money was returned by the Naval Academy and the balance reported is \$8,572.

**40th MLW Report**

Barbara Wrinkle reported on problems with the proceedings. Different formats and software resulted in an unattractive product. An AD# has been issued, this will be printed, then scanned. Once printing costs are completed, final funds reconciliation can be completed. The goal is to break even.  
**Tasking: The treasurer needs to contact Larry Clemens to close out the workshop account and return remaining funds to Wendy Hill.**

#### 41st MLW Report

Janet Burke could not be present. Tom Rohmiller will contact her about the return of the seed money. There may be about a \$1000.00 profit.

#### CEU Credits

The hosting organization completes the paperwork. A brief discussion was held about CEUs. Begun in 1988, Norman Varieur knows the complete history. Their importance seems diminished and alternatives were discussed. The ALA state certification is a two-year process.

#### MLD/MLW History

Coordinating corrections with Mr. Palmer continues to be difficult. Barbara Wrinkle made a recommendation to publish.

#### Procedures Manual

Barbara Wrinkle reported she and Annette will clarify any remaining issues by e-mail and coordinate with MLW hosts. The bylaws, as corrected June '94 are the most current and Tracy Landfried will include these with the membership directory. The Procedures Manual may be included in whole or in part.

**Tasking: Barbara Wrinkle will send as needed.**

#### 42nd MLW Report

Gerri Shane outlined the program for the workshop. She discussed the need for all individuals attending to be registered with the hotel as such to ensure contract provisions are met. She was able to negotiate for a continental breakfast for local attendees while conference attendees received breakfast coupons in their packets.

#### 43rd MLW Report

Janet Scheitle could not be present but sent a report. Army, Training and Doctrine Command (TRADOC) will host and it will be held in Williamsburg 7-9 December in conjunction with the Illumination at the Hospitality House Hotel on the edge of the historic district. Neither the theme nor program is set. Rooms will be at the government rate both the weekend before and the weekend after so participants can take advantage of area activities.

#### Future Workshops

- MLW 99 (43) is the responsibility of the Army and will be hosted by TRADOC in Williamsburg, Virginia.
- MLW 2000 (44) is the responsibility of the Navy and the site has not been selected.
- MLW 2001 (45) is the responsibility of the Air Force and the site has not been selected.
- Air University Library has volunteered to host the 50th MLW in 2006 at Maxwell AFB, Alabama.

Hosts need cooperation from others to produce the Workshop. Both

Annapolis and Dayton were coordinated efforts. Participation and outsourcing are two significant issues affecting future MLWs. Registration in Alexandria is 158 compared to 160-170 in Dayton. There are often 12-15 late registrations, but this was not permitted this year in Alexandria. There are implications for hotel space. Many hotels plan 80% plus. Meals could be excluded.

**Recommendation:** Allow onsite registration both for the whole conference and for single day attendance. Tom Rohmiller moved and BJ Fox seconded the motion.

#### **MLW Executive Board Appointments**

Barbara Wrinkle, MLW Chair, will need to be replaced with an experienced member. She will finish the history and Procedures Manual.

A new DoD representative was discussed and Barbara Fox had some suggestions including Phyllis Levine, DTIC. Ruth Corn, Chief Librarian Asia-Pacific Center for Security Studies, will replace Katharine Wallace, Navy/Marine Corps representative.

**Tasking: Tom Rohmiller will check with Army, check on the Canadian representative, and look for an experienced member to replace Barbara Wrinkle.**

#### **New Business**

The question of what to charge retirees arose. Their experience and value to the organization should be recognized. Some felt registration should be reduced as an incentive to continue participation. Some possibilities are: Pay 50%; pay \$25 per day; Pay \$25 total. Free attendance was generally rejected. Whatever is decided, it should be recorded in the Procedures Manual for all so there is no dissension. Because meals are included, it must cover the meals. Perhaps meals and or the banquet should be charged separately. Tom Rohmiller moved to charge a registration fee for the conference, which would equal a "banquet fee" identical to meal charges for all meals. This was seconded by Barbara Wrinkle and passed unanimously. There was some more discussion about what to charge individuals who are not members of the Division. SLA compensates us for each member so getting more members needs to be a priority!

The meeting adjourned at 6:00 P.M.

WENDY S. HILL  
Secretary/Treasurer, SLA/MLD & MLW