

January 1991

Full Issue: vol. 45, no. 1

Follow this and additional works at: <http://jdc.jefferson.edu/scitechnews>

[Let us know how access to this document benefits you](#)

---

#### Recommended Citation

(1991) "Full Issue: vol. 45, no. 1," *Sci-Tech News*: Vol. 45: Iss. 1, Article 13.

Available at: <http://jdc.jefferson.edu/scitechnews/vol45/iss1/13>

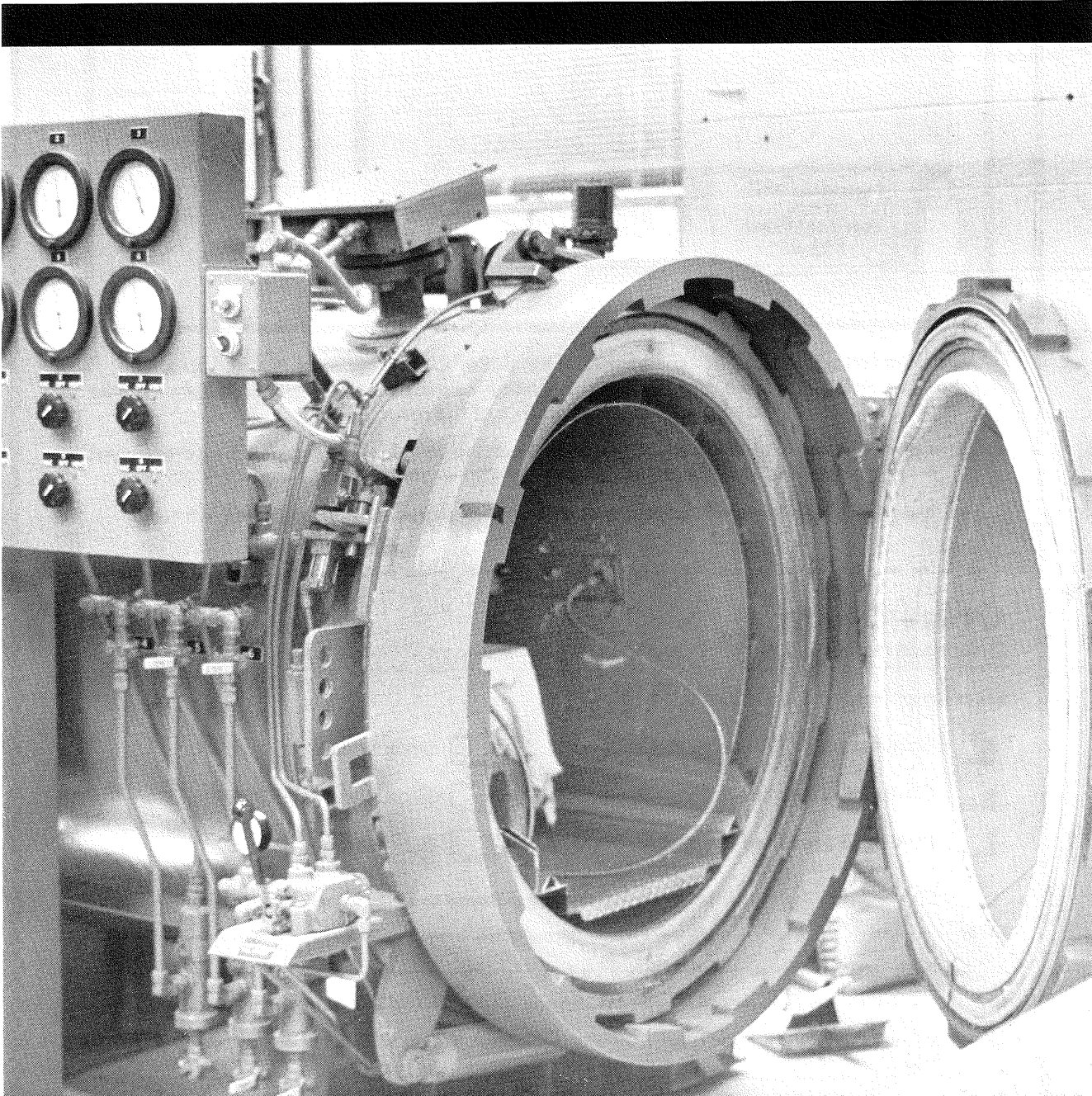
This Article is brought to you for free and open access by the Jefferson Digital Commons. The Jefferson Digital Commons is a service of Thomas Jefferson University's [Center for Teaching and Learning \(CTL\)](#). The Commons is a showcase for Jefferson books and journals, peer-reviewed scholarly publications, unique historical collections from the University archives, and teaching tools. The Jefferson Digital Commons allows researchers and interested readers anywhere in the world to learn about and keep up to date with Jefferson scholarship. This article has been accepted for inclusion in *Sci-Tech News* by an authorized administrator of the Jefferson Digital Commons. For more information, please contact: [JeffersonDigitalCommons@jefferson.edu](mailto:JeffersonDigitalCommons@jefferson.edu).

# SCI-TECH NEWS

The Official Bulletin for the Aerospace, Engineering, Nuclear Science, and  
Science & Technology Divisions of the Special Libraries Association.

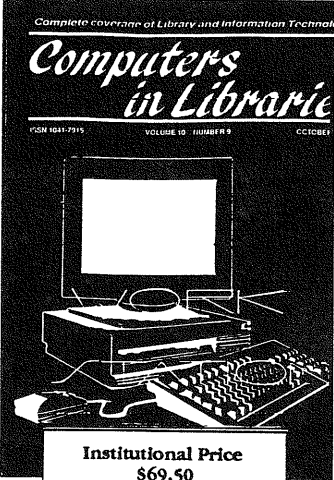
Volume 45, Number 1

January 1991



ISSN0036-8059

## Personal Rates Now Available for these Meckler Periodicals

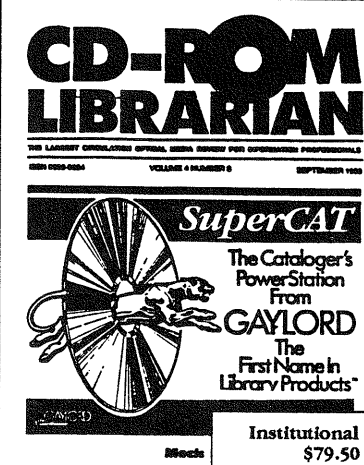


**Computers  
in Libraries**

Complete coverage of Library and Information Technology

ISSN 1037-7315 VOLUME 10 NUMBER 9 OCTOBER 1991

**Institutional Price**  
\$69.50  
**Personal Price**  
\$33.00



**CD-ROM  
LIBRARIAN**

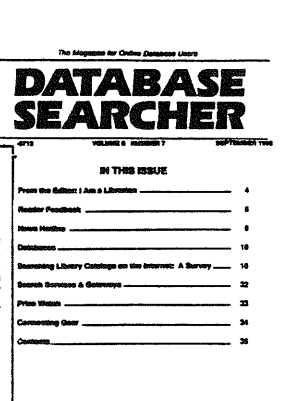
THE LATEST CD-ROMS, OPTICAL MEDIA, ANSWERS FOR OPERATIONAL PROFESSIONALS

ISSN 0898-0844 VOLUME 4 NUMBER 6 SEPTEMBER 1991

**SuperCAT**

The Cataloger's PowerStation From **GAYLORD**  
The First Name in Library Products™

**Institutional Price**  
\$79.50  
**Personal Price**  
\$33.00



The Magazine for Online Database Users

**DATABASE  
SEARCHER**

VOLUME 6 NUMBER 7 SEPTEMBER 1991

**IN THIS ISSUE**

From the Editor: I Am a Librarian 4

Reader Feedback 8

News Header 8

Database 10

Searching Library Catalogs on the Internet: A Survey 10

Search Services & Gateways 22

Pricing Watch 23

Commentary Desk 24

Contents 28

**Institutional Price**  
\$95.00  
**Personal Price**  
\$33.00

Meckler has succumbed to the demands of the times! Our competitors all offer personal subscription rates — now we do too! Send your order for one . . . or all . . . of the above Meckler titles today. To take advantage of the reduced rates:

1. Your personal subscription must be prepaid (Canadian or U.S. \$) - either check or credit card.
2. Your personal subscription must be shipped to an individual at a home address.

To take advantage of this special offer, simply check the appropriate box on the Order Form below.

### Order Form

Detach and mail to Meckler • 11 Ferry Lane West • Westport, CT 06880

Enter my personal subscriptions to:

- |   |  |
|---|--|
| <input type="checkbox"/> <b>Computers in Libraries @ \$33.00*</b> | <input type="checkbox"/> Institutional Price \$69.50 |
| <input type="checkbox"/> <b>CD-ROM Librarian @ \$33.00*</b>       | <input type="checkbox"/> Institutional Price \$79.50 |
| <input type="checkbox"/> <b>Database Searcher @ \$33.00*</b>      | <input type="checkbox"/> Institutional Price \$95.00 |

(\* I understand that my subscription order must be prepaid and sent to an individual at a home address.

Name: \_\_\_\_\_ Organization \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Province/State: \_\_\_\_\_ Postal Code/Zip: \_\_\_\_\_

Payment enclosed in the amount of \_\_\_\_\_,  Charge my order to:  VISA  MasterCard  AMEX

Account #: \_\_\_\_\_ Exp. Date: \_\_\_\_\_

Telephone: \_\_\_\_\_

Signature: \_\_\_\_\_

*Here are three journals from The Haworth Press, Inc., that will enhance your library's collection—Order your FREE SAMPLE COPIES today!*

**Behavioral & Social Sciences Librarian**

**Editor: Michael F. Winter, MLS, PhD**  
Behavioral Sciences Librarian,  
University of California at Davis

*"The articles are well researched, lucidly written,  
and thoroughly documented. An impressive  
editorial board."  
Serials Review*

This landmark journal publishes articles on all aspects of behavioral and social sciences information, with emphasis on librarians, libraries, and the users of social science information in libraries and information centers. No other journal covers the field, and no other journal attempts to reach both the professional information specialist and the scholar.

Volume 10, No. 1—Fall 1990. Biannual.  
Volume 11, No. 1—Fall 1991. Biannual. (2 issues).  
Subscription rates (per volume): Special Discounted Rate for Individuals: \$35 / Institutions: \$75 / Libraries: \$75

**Journal of Agricultural & Food Information**



**Editor: Michael Kinch, MLS, MS**  
Head, Reference Services, Kerr Library, Oregon State University, Corvallis, Oregon

Here is a new quarterly forum for the communication of research, innovative practice, and informed opinion on all aspects of agricultural and food information. The **Journal of Agricultural & Food Information** will have a strong interdisciplinary emphasis in order to stimulate research and encourage discussion among a number of disciplines, including librarians—academic, private sector, federal, and state; extension professionals; agricultural communicators; educators; database specialists; government administrators; and consultants.

Volume 1, No. 1—Fall 1991. Quarterly  
Volume 2, No. 1—Fall 1992. Quarterly (4 issues).  
Subscription rates (per volume): Special Discounted Rate for Individuals: \$24 / Institutions: \$40 / Libraries: \$40

**Medical Reference Services Quarterly**

**Editor: M. Sandra Wood, MLS, MBA**  
Head, Reference, The George T. Harrell Library,  
The Milton S. Hershey Medical Center,  
The Pennsylvania State University, Hershey

*"Recommended as one of the most relevant  
publications to the practical requirements of  
medical librarians yet produced."  
InCite Magazine*

This highly acclaimed journal is the "working tool" for medical and health sciences librarians. For those professionals who provide reference services to health sciences personnel in clinical, educational, or research settings, **Medical Reference Services Quarterly** covers topics of current interest and practical value in the areas of reference in medicine and related specialties, the biomedical sciences, nursing, and allied health.

Volume 10, No. 1—Spring 1991. Quarterly  
Volume 11, No. 1—Spring 1992. Quarterly (4 issues).  
Subscription rates (per volume): Special Discounted Rate for Individuals: \$36 / Institutions: \$90 / Libraries: \$90

**ORDER TODAY!**

- Yes! Please send me a FREE SAMPLE COPY of Behavioral & Social Sciences Librarian.**
- Yes! Please send me a FREE SAMPLE COPY of the Journal of Agricultural & Food Information.**
- Yes! Please send me a FREE SAMPLE COPY of Medical Reference Services Quarterly.**

NAME \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 CITY \_\_\_\_\_  
 STATE/PROVINCE \_\_\_\_\_  
 ZIP/POSTAL CODE \_\_\_\_\_  
 COUNTRY \_\_\_\_\_  
 SIGNATURE \_\_\_\_\_



**The Haworth Press, Inc.**  
10 Alice Street  
Binghamton, New York 13904-1580

PAD90

# ATI spells international success in 110 languages.

ATI, éxito internacional en 110 idiomas.

**שפתך ב-110 לשונות**

Framgång stavas ATI på 110 olika språk

آ. تي. أي. تعني النجاح دولياً بـ ١١٠ لغة

ATI: successo internazionale in 110 lingue.

110개 언어를 구사하는 ATI는 여러분의 국제적인 성공을 약속합니다.

ATI, c'est la réussite internationale en 110 langues

ATI 能將您的  
母語譯成  
一百一十種  
語言

ATI ΣΗΜΑΙΝΕΙ ΔΙΕΘΝΗΣ ΕΠΙΤΥΧΙΑ ΣΕ 110 ΓΛΩΣΣΕΣ

एटीआई आपकी भाषा ११० भाषाओं में बोल सकता है।

ATI: 110 ЯЗЫКОВ-ПУТЬ К МЕЖДУНАРОДНОМУ ПРИЗНАНИЮ

ATI um êxito internacional em 110 idiomas

ATIは、110ヶ国語で皆様が国際的成功を収めるお手伝いを致します。

ATI — das heißt weltweiter Erfolg in 110 Sprachen

ATI znamena' světový úspěch ve 110 jazycích

## ATI's translations close the language gap.

As international opportunities increase, so does your demand for foreign-language expertise.

A leading translation company, ATI can satisfy all your language needs—quickly and expertly. In 110 languages, ATI focuses on technical translations. ATI's services include:

- ◆ Document translations by FAX—worldwide
- ◆ Technical and legal conference interpreters
- ◆ Same-day service and free estimates
- ◆ Certification and quality assurance
- ◆ Typesetting, laser printing, DTP

ATI renders accurate translations by staffing technical specialists. 87% possess PhD, MS, MD, or other advanced degrees. Our translators average 12 years of professional experience.

ATI is based in Silicon Valley, next to Stanford University. This ideal environment for technical translation attracts leaders such as Apple, Boeing, Chevron, Ford, Fujitsu, GE, HP, IBM, Siemens, Syntex, 3M, United, and Xerox.

For quality translations, or for our free brochure, please call or fax ATI.



AMERICAN TRANSLATORS INTERNATIONAL

USA  
TEL. 1-800-443-2444  
FAX 1-800-443-2454

Japan/Asia  
TEL. (81-6) 354-8737  
FAX (81-6) 354-3839

Other Areas  
TEL. (1-415) 323-2244  
FAX (1-415) 323-3233

© 1990 American Translators International, Inc., P.O. Box "X" Stanford, California 94309

# SCI-TECH NEWS

ISSN 0036-8059  
Volume 45, Number 1  
January 1991

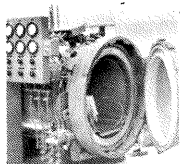
**Editor:**  
Ellis Mount  
Columbia University

**Business Manager:**  
Barbara Sanduleak  
ASM International

**Subscriptions Manager:**  
Suzanne Ogden  
Frito-Lay, Inc.

**Advertising Manager:**  
Wilda B. Newman  
Johns Hopkins University  
Applied Physics Laboratory

**Advisory Committee:**  
Camille Clark, Chair  
Merck, Inc.



Baron Autoclave—used for curing composite materials. University of Maryland Aerospace Engineering School, Composites Research Laboratory. Photo by William R. Pogue

## Feature Article

3 Kodak InfoSource Network  
By Kathryn Starr

## News from the Sponsoring Divisions

6 Aerospace Division, Phyllis A. Fischer  
12 Engineering Division, Mary Ann Schmidt  
17 Nuclear Science Division, Eileen Chen  
21 Science-Technology Division, Monica Ertel

## Departments

2 From the Editor  
45 New Science & Technology Journals  
47 Conference Literature  
52 Book Reviews  
73 Looking Backward  
74 Directory of Sponsoring Divisions

## Index of Advertisers

American Translators International, ii  
Haworth Press, i, iv  
Meckler, cover 2, cover 4  
NTIS, 36  
Research Books, 11  
Technomic Publishing Company, iii, cover 3  
Wilson (H.W.), v

## Department Editors

**Book Reviews:** Ron Buchan, NASA STIF, P.O. Box 8757, BWI Airport, MD 21240  
**Conference Literature:** Marsha Saylor, Hoechst Celanese Corporation, P.O. Box 9077, Corpus Christi, TX 78469-9077  
**New Science & Technology Journals:** Lynn Tinsley: Engineering & Science Library, Carnegie Mellon University, Schenley Park, Pittsburgh, PA 15213

**SCI-TECH NEWS** (ISSN 0036-8059) is published quarterly, available for \$20.00 (U.S. subscribers) and \$22.50 (Foreign subscribers), by the Aerospace, Engineering, Nuclear Science and Science-Technology Divisions of the Special Libraries Association, 7701 Legacy Drive, Plano, TX 75024-9001. Second-class postage paid at Plano, TX and additional mailing offices. **POSTMASTER:** Send address changes to *Sci-Tech News*, Suzanne Ogden, Frito-Lay, Inc., Corporate Library, 7701 Legacy Drive, Plano, TX 75024-9001.

**Publication Policy:** *Sci-Tech News* is the official bulletin of the Aerospace, Engineering, Nuclear Science, and Science-Technology Divisions of the Special Libraries Association. The contents of articles and editorials are not to be construed as being or representing the official position of the sponsoring divisions.

**Disclaimer:** Special Libraries Association assumes no responsibility for the statements and opinions advanced by the contributors to the Association's publications. Editorial views do not necessarily represent the official position of the Special Libraries Association. Acceptance of an advertisement does not imply endorsement of the product by the Special Libraries Association.

**Manuscripts:** The editor solicits papers of interest to the community of science and technology-oriented special libraries. Manuscripts of articles should be typed in doublespace and in general should not exceed 1600 words.

**Subscriptions:** Special Libraries Association members in the Aerospace, Engineering, Nuclear Science and Science-Technology Divisions automatically receive subscriptions to *Sci-Tech News*. Their annual subscription fee of \$3.50 is paid from their annual dues to the Special Libraries Association. All others may subscribe for \$20.00 (U.S. subscribers) and \$22.50 (Foreign subscribers). Inquiries concerning subscriptions should be sent to the subscriptions manager.

**Address Changes:** These should be communicated to either the Special Libraries Association, Membership Department, 1700 18th St., N.W., Washington, D.C. 20009, by those who receive *Sci-Tech News* as a consequence of their membership in one or more of the sponsoring divisions, or to the subscriptions manager, by all other subscribers.

**Offices:** *Sci-Tech News*, c/o Suzanne Ogden, Frito-Lay, Inc., Corporate Library, 7701 Legacy Drive, Plano, TX 75024. Editor, Ellis Mount, School of Library Service, Columbia University, New York, NY 10027; (212) 854-4011; FAX (212) 854-7846. Business Manager, Barbara Sanduleak, ASM International, Materials Information, Materials Park, OH 44073; (216) 338-5151; FAX (216) 338-4634 Advertising, Wilda B. Newman, Johns Hopkins University, Applied Physics Laboratory, Bldg. 7, Room 278, Laurel, MD 20713-6099; (301) 953-5721; FAX (301) 953-1093. Subscriptions, Suzanne Ogden, Frito-Lay, Inc., Corporate Library, 7701 Legacy Drive, Plano, TX 75024; (214) 353-4732. Printed by Imperial Printing Co., St. Joseph, MI.

# FROM THE EDITOR

## FROM THE EDITOR

This issue should reach you at a period when you are filled with plans and hopes for the new year, which I trust will all come to fruition. It also marks the month of the Mid-Winter meeting, at which specific steps for organizing the Annual Conference will be taken. Some of those plans may be found in this issue.

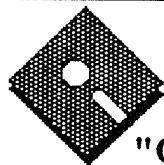
The need for more information about the multitude of conferences and symposia of interest to our readers has led to the creation of a new regular feature, entitled Conference Literature, which makes its initial appearance in this issue. Marsha Saylor has kindly agreed to serve as its editor. The section will consist of two types of entries--reviews of published conference proceedings and reports from volunteers who have attended conferences and wish to write a brief summary. In either case, please send your contributions to Marsha, who is Coordinator for the Technical Information Center at Hoechst Celanese (address is given in the section). Ron Buchan has readily agreed to furnish her with reviews of printed proceedings which previously would have appeared in the Book Reviews section.

Another first for *STN* is having profiles of two libraries in one issue. Our regularly featured description is that of the facility at Eastman Kodak, written by Kathryn Starr. The bonus account may be found in the Nuclear Science Division section, consisting of a report on the Vienna International Centre Library by Margaret H. Conyngham and Zilole Phiri.

The Aerospace Division section includes a copy of a letter originally sent to me last May. In the press of business at that time I overlooked the value of publishing the letter as a matter of general interest to our readers. I hope I can convince future authors that their letters of this sort will be published in the next available issue if the subject matter appears to merit inclusion. Your ideas *are* of interest; feel free to write me.

Much of the book review section in this issue is devoted to the important field of Materials Science, especially composites. Our cover, obtained by Ron Buchan, shows an autoclave used for preparing composites.

ELLIS MOUNT



SLA's Self-Study Program

**"Grace Under Pressure:  
Writing with Clarity, Conciseness and Impact"**

This self-study program is available in both workbook and floppy disk formats.

For further information contact SLA, Professional Development Section, 202/234-4700.

## KODAK INFOSOURCE NETWORK

By KATHRYN STARR

Kodak InfoSource Network's mission is: "to be the complete source for one-stop access to quality information products and services within Eastman Kodak Company." Networking is the key to making InfoSource work. Each of the eight InfoSource libraries in Rochester is linked electronically so that customers have access to information residing at all InfoSource locations. InfoSource is also linked to external sources through systems such as DIALOG, OCLC, and Faxon in order to provide comprehensive information access.

In addition to eight sites, InfoSource has three "activity groups." These are Proprietary Information, Search/Query, and Information Materials Processing Center. Proprietary Information is responsible for internal reports. Search/Query offers reference service and online searching, coordinates current awareness profiles, and provides end-user training for online searching. Information Materials Processing Center (IMPC) is the technical branch of InfoSource. IMPC purchases books, external technical reports, and computer manuals, places periodical subscriptions and interlibrary loans, and handles cataloging and updating of the online book catalog and union list of serials.

### RESOURCES

A highly skilled staff is the most important resource in the InfoSource Network. InfoSource members hold degrees in their subject specialties, and Site Librarians have

Information/Library Science degrees. Altogether there are 14 professionals, 22.5 support staff and 6 high school co-op students.

The InfoSource Network collection includes over 64,109 books, 260,000 items of proprietary information, 4,321 journal titles, 83,000 standards, 11,000 translations, and 1,768 multiclient studies. Currently there are 2,700 journal subscriptions and over 15 CD-ROM titles.

InfoSource library collections are developed in specific areas. This helps to reduce duplication between sites and allows for a more diverse overall collection. Subject specialties include standards, patents, chemistry, photography, imaging science, information systems, engineering, and proprietary information.

Terminals are available in each site for searching the online book catalog. In addition, customers with mainframe connection can access library services at their desks. LIBINFO allows access to the online catalog as well as electronic ordering of books, journal articles, literature searches, or other library services. Also available on this system is an electronic journal table of contents service (JTOC), which allows customers to review TOCs, order articles electronically, and set up current awareness profiles. Five InfoSource locations have CD-ROM workstations available for customer searching.



## SERVICES

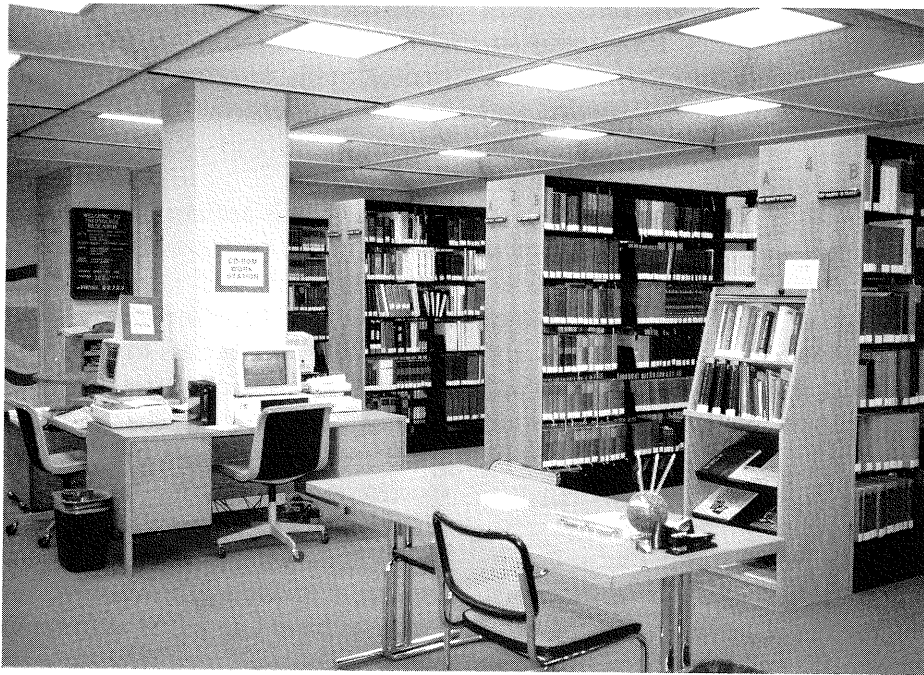
Circulation of books, computer manuals, and technical reports is provided with a standard two-week loan period. Internal article copies are provided at no charge. For items not held by InfoSource, interlibrary loans are available. Rush service is an option, as is same-day document delivery for internally held items.

Literature searching is a widely used service. InfoSource staff use a variety of databases including DIALOG, ORBIT, NEXIS, and STN. Current awareness profiles are set up through NERAC. Other services include book purchasing, placing of journal subscriptions, journal routing, and journal check-in and maintenance.

All InfoSource services are available through any of the sites, over telephone or fax, or electronically. This enables customers to access InfoSource services quickly and conveniently. Once a request is received, InfoSource's networking capability allows staff to use internal and external resources as necessary to provide the needed information.

## MARKETING

In order to increase the visibility of InfoSource within Eastman Kodak Company, new brochures were developed about one year ago. The brochure includes information about InfoSource products and services. An inside pocket is designed to hold inserts describing the various sites or specific products or serv-



ices. The brochure may be used with or without the inserts depending on the intended audience.

Other marketing strategies include use of company video monitors to advertise specific InfoSource products and services, and presentations to various groups within Eastman Kodak. Currently InfoSource staff are working on a "liaison" program. InfoSource professionals will target specific customer groups to work with, attend department meetings and get a first-hand look at how these groups use information. This will enable InfoSource to offer products specifically tailored to meet the needs of individual groups.

#### CONCLUSION

The InfoSource Network has the goal of providing information to the customer's workplace. With a highly skilled staff and extensive networking capabilities, that goal is being realized. InfoSource is also working at structuring its databases in order to bring more information directly to the customer's desktop. By continuing to monitor customer information needs, anticipate future needs, and develop specific products to satisfy those needs, InfoSource is certain to remain a vital and necessary link to information for Eastman Kodak Company.

Kathryn Starr is Librarian at the InfoSource KAD Library 35213, Rochester, NY 14650. She has held the position for two years, following receiving the MLS degree from the University of Arizona.



# AEROSPACE DIVISION

The objectives of the Aerospace Division are to encourage the free exchange of ideas and information between libraries and librarians who are directly concerned with aerospace technology and related sciences; and to maintain a dialog with NASA and other governmental agencies upon whom we rely as sources of technical data and bibliographic sources.

## FROM THE CHAIR

PHYLLIS A. FISCHER



### SAN ANTONIO CONFERENCE

The conference planners have been working hard for the past year to give you good programs that will be able to compete with the many San Antonio tourist attractions. Our

conference theme is "Masterminding Tomorrow's Information—Creative Strategies for the 90s."

We will be carrying on the tradition of co-hosting our reception and open houses with the Engineering Division. I would like to welcome the Nuclear Science Division which will also be co-hosting the reception this year. Please stop by, visit old friends, and make some new friends. This year our reception will be on Sunday evening instead of Monday. This is because the SLA Annual Fund Raiser will be on Monday evening. It is to be "A Night in Old San Antonio." Picture a giant block party—San Antonio style. A whirlwind celebration with color, character, food, music, and ear-to-ear grins. Fajitas, tortillas, chalupas, desserts, margaritas, and beer and you've only started. Cotton-Eyed Joe, Polkas, and Dixie-land Jazz will make you kick up your heels.

We'll be talking about this fund raiser for years to come.

On a more serious side, we've got two interesting speakers for the General Sessions. On Monday, Joel Barker, founder and president of Infinity Limited, Inc., who invented the concept of "strategic exploration," will be featured. He is known for a broad range of strategic exploration tools that improve on an organization's ability to shape its own future. Tuesday's speaker is Alan Kay, known as the "father of the personal computer." Kay conceived Dynabook, the powerful lap-sized personal computer of the 80s, and Smalltalk, an object-oriented programming language used by non-programmers.

Our Division is sponsoring/co-sponsoring programs on the following subjects:

- . Success Clinic: Masterminding Your Future
- . Total Quality Management: Buzzwords or Saviour
- . Understanding the Diffusion of Federally Funded STI
- . Human Factors

We are also planning a field trip with several divisions to the Southwest Research Institute. Hope to see all of you in San Antonio!

## GEORGE MANDEL MEMORIAL AWARD (GMMA) WINNER

Thomas E. Pinelli of the NASA Langley Research Center will receive the first annual GMMA. Tom will be presenting a paper in San Antonio on the results of his research funded by NASA and the DOD on the diffusion of federally funded aerospace research. The \$500 Mandel Award will be used by Tom to defer his travel costs to San Antonio. Congratulations, Tom!

It's not too soon for you to be thinking if you might be eligible for the GMMA next time to help you defer the costs of traveling to the annual conference, which will be held in San Francisco. Guidelines for the Mandel Award are that it is to be awarded to a Division member in good standing to help defray conference costs if he/she is contributing to the conference by presenting a paper, facilitating a session, etc. If you would like information on the theme and plans for the San Francisco conference in 1992, contact Sandy Molz, Chair Elect, at (617) 594-5363.

## PRESIDENTIAL ELECTION

One of our members, Catherine "Kitty" D. Scott, is running for President of Special Libraries Association. Kitty is a past Chair of the Aerospace Division (1980-81) and has held other positions within our organization. The Aerospace Division has had members serve SLA well over the years, on the Board of Directors, on the Advisory Council, and as SLA Presidents, while others have been honored as SLA Fellows. I wish to extend my personal "Good Luck" to Kitty in her campaign for the Presidency.

## FROM THE CHAIR-ELECT

**Sandy Molz**

From January 22-25, 1991, I'll be attending the SLA Winter Annual Meeting where the work of planning the 1992 conference will begin. I'm excited about meeting the other Chairs-Elect and taking that first step. I've already called a number of the other Chairs-Elect to discuss possible program ideas and sharing of Division suites. My personal philosophy is "fewer and better." I'd rather see a few excellent programs with a number of Divisions sharing the work and the expenses, than lots of programs with less content.

Here are a few of the program ideas I've discussed so far:

- . Workforce 2000
- . State of the Defense/Aerospace Industry
- . Serials Pricing Update
- . Manufacturing in Space
- . COSATI Guidelines for Cataloging Technical Reports
- . NASA's Future Role

PLEASE contact me with any ideas and/or responses to these ideas, especially before the winter meeting.

Tip for San Francisco: Read some of Armistead Maupin's *Tales of the City* series to get in the mood for San Francisco and a feel for the city. These are the kinds of books Charles Dickens would be writing if he were alive and living in San Francisco.

## MEMBERSHIP NEWS

### Mitzi Rinehart

Here are our new Division members since last July for you to update your Aerospace Directory.

Mary E. Abbott  
514 Chicago Ave  
Fair Oaks, CA 95628  
916-355-3401

Gordon S. Banholzer Jr.  
NASA Langley Research Center  
MS 185  
Hampton, VA 23665  
804-868-2388

C. A. Clift  
2815 33rd Ave NE  
Minneapolis, MN 55418  
612-337-3102

John T. Calkins  
1126 Stonecrest Dr  
Houston, TX 77018  
713-483-4253

Ann B. Campbell  
3201 Henderson Mill Rd #11D  
Atlanta, GA 30341  
404-894-4511

William C. Dawe  
413 Cottage Ave  
Glen Ellyn, IL 60137  
708-790-2922

Sharon Y. Gause  
Univ of Colorado Engineering Library  
Campus Box 184  
Boulder, CO 80309  
303-492-5396

Judith N. Hecht  
3 Wiltshire Blvd  
Dayton, OH 45419  
513-229-3024

Theresa R. Hocking  
18504 Jeffrey Ave  
Cerritos, CA 90701

Eric R. Kristofferson  
United Technologies Corp  
Library  
PO Box 50015  
San Jose, CA 95150  
408-778-4784

Alane Love  
PO Box 30323  
Palm Beach Gardens, FL 33410

Elsbeth S. Mason  
Litton Guidance & Control Sys  
Libr & Tech Info Ctr MS75  
5500 Canoga Ave  
Woodland Hills, CA 91367  
818-712-7355

Donna K. McAllister  
2798 Pinewood  
League City, TX 77573

Harriet B. McKay  
Rte 1 Box 664  
Woodville, AL 35776

Karen J. Puffer  
111 Maple St  
South Boardman, MI 49680

Emma L. Robertson  
Spartan School of Aeronautics  
Learning Resource Ctr LRC  
8820 E Pine St  
Tulsa, OK 74115  
918-831-5301

Patricia M. Shores  
42 Way Street  
Binghamton, NY 13901  
607-770-2589

Vicky Spitalniak  
3 Ivy Ct.  
Brookfield, CT 06804  
203-852-5885

Jane B. Waks  
Northern Research & Engg. Corp  
39 Olympia Ave  
Woburn, MA 01801  
617-935-9050

Mary K. Yeager  
8201 Brentmoor Lane  
Wichita, KS 67206  
316-526-3802

## FROM THE DIVISION REPORTER

**Steve Gass**

Two new publications from the Transportation Division:

The *SLA Transportation Division Union List of Periodicals*, June 1989, is comprised of 1,262 current periodical titles in the transportation field. It represents the holdings of fifty-two Transportation Division member libraries. Each entry consists of the periodical title, its frequency, the place of publication, the publisher, and the holdings information for each library. Entries are arranged alphabetically by title. The list is available in paper (\$30 for non-Transportation Division members, \$15 for members) and/or DS/DD diskette (\$20 for non-members, \$10 for members). You can request to be invoiced.

*Transportation and Physical Distribution: a Bibliography of Papers Submitted to American Society of Transportation and Logistics, Inc., by Candidates for Certified Membership*

1947-1987, August 1989, is a guide to the papers held on deposit at the Transportation Library at Northwestern University. The bibliography is approximately 200 pages. A separate supplement of 6 pages includes papers produced 1988 to 1989. The Transportation Library will supply photocopies of the papers in response to mail, telephone, or onsite requests. Photocopy charges are \$0.15 per page plus mailing costs plus a handling charge (\$3 for AST&L members, \$6 for non-members). An invoice is mailed with the photocopy. The price of the spiral-bound bibliography and separate supplement is \$15 prepaid.

Both publications can be obtained from:

Renee McHenry  
Transportation Library  
Northwestern University Library  
1935 Sheridan Road  
Evanston, IL 60208-2300  
708-491-5274

Make checks out to: Transportation Library.

## CLEARINGHOUSE FOR TECHNOLOGY IDEAS

The Commerce Dept. has set up a clearinghouse with a database containing information from more than 700 local, state, and federal technology programs, and from more than 400 individuals working in technology programs and policy. Data covers a range of programs: research centers, university research grants, tax policy, technology transfer, management assistance, technical assistance, business capital, and more. For details, contact:

Clearinghouse for State and Local  
Initiative  
Technology Administration  
US Dept. of Commerce  
14th and Pennsylvania Ave., NW  
Room H-4418  
Washington, DC 20230  
202-377-0826

### AEROSPACE DATABASE NEWSLETTER

The AIAA Technical Information Service issued Vol. 1, No. 1 of its Newsletter in October. The Newsletter featured a calendar of upcoming meetings, short news items (e.g., availability of the Aerospace Database on CD-ROM) tips for online searching, and information on how to make the most of the AIAA TIS.

### TECHNICAL COMMUNICATIONS IN AERONAUTICS—COMMENTS

David Elazar, Manager of the Technical Information Center at the Israel Aircraft Industries Tashan Engineering Center, sent me a copy of a letter he sent to Ellis Mount last May. I reprint it here in its entirety.

Dear Mr. Mount:

I recently read Mr. Tom Pinelli's survey results in the publication, "Technical Communications in Aeronautics: Results on an Exploratory Study" (NASA TM 191534). On page 56 he presents a table—"Sources Used by Aeronautical Engineers and Scientists to Solve Technical Problems" where he lists sources and percent of cases, with "personal knowledge" getting the highest percentage (88%). This particular source along with "discussion

with..." (nos. 2, 3, 4, 10) somewhat bothers me as it misleads the reader as to the actual sources of information used by the aeronautical engineer. What is "personal knowledge"? Where did it come from? From my experience "personal knowledge" comes for the most part from 1) reading books, journal articles, papers, technical reports, 2) formal education, and 3) experience and/or experiment. Much of this "personal knowledge" is obtained via the use of libraries, technical information centers, and online databases whether directly or indirectly. "Directly" being when the engineer turns to the library for specific information; "indirectly" being when 1) the engineer orders information via the library for possible future reference, and 2) the librarian supplies the engineer with unsolicited but pertinent information. Under these circumstances "personal knowledge" is credited without taking into consideration the role of the library. Most of the information which includes textbooks, technical reports, journals, conference papers, handbooks, and standards, is obtained in and/or via the library. In the organization where I work, all externally produced information regardless of format must be purchased via and registered in the technical information center.

Your comments to the above will be of interest. I am also interested in the comments of other information professionals, who are the members of the Aerospace Division of SLA, and I feel that *Sci-Tech News* should be the forum for this discussion.

I read in the January 1990 issue of *Sci-Tech News* (p. 8) about the project "Exploring the Role of the Information Intermediary in the Transfer of Federally Funded Aerospace

Research and Development." I am looking forward to reading both phase 1 and phase 2.

Sincerely yours,

David Elazar

Dear David,

Thanks for your comments, David. I encourage Division members to comment on

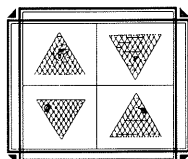
David's letter as well as other aspects of Tom Pinelli's work, which holds great promise for the better understanding of how aero-astro engineers, scientists, and information intermediaries use information and libraries to facilitate their work. And Tom, I know you're reading this, I encourage you to respond to David's comments and continue using this column to disseminate progress on your research. We all look forward to hearing your latest results in San Antonio.

Scientific, Technical, Management and Reference

## BOOKS OF ALL PUBLISHERS

### New from Academic Press

FLUORIDE GLASS  
FIBER OPTICS



Edited By  
Ishwar D. Aggarwal  
Grant Lu

Aggarwal, I. **FLUORIDE GLASS FIBER OPTICS** (0-12-044505-0)

Balakrishnan, N. **ORDER STATISTICS AND INFERENCE:**  
Estimation Methods (0-12-076948-4)

Barnsley, M. **THE DESKTOP FRACTAL DESIGN SYSTEM**  
(Macintosh Version) (0-12-079064-5)

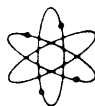
du Preez, P. **A SCIENCE OF MIND: The Quest for Psychological**  
Reality (0-12-224960-7)

Hashimoto, Y. **MEASUREMENT IN PLANT SCIENCE**  
(0-12-330585-3)

Ingham, K. **UNIX TOOL BUILDING** (0-12-370830-3)

Paxinos, G. **ATLAS OF THE DEVELOPING RAT BRAIN**  
(0-12-547628-0)

Serving Special Libraries for 27 Years



**RESEARCH BOOKS, INC.**

38 Academy Street, P.O. Box 1507  
Madison, Connecticut 06443  
(203) 245-3279 FAX (203) 245-1830

Except from Connecticut call 1-800-445-RELY



# ENGINEERING DIVISION

The objectives of the Engineering Division are to provide an association for those having an interest in library and information science as they apply to engineering and the physical sciences and to promote the use of materials and knowledge for the benefit of libraries and other educational organizations.

## FROM THE CHAIR

MARY ANN SCHMIDT



By the time you read this, Lynn Tinsley and I will have departed for the SLA Winter Business meeting in Washington, DC. Along with all the Association business, the division chairs will make final plans for the 1991 San Antonio conference.

Complete details of the programs sponsored by our division will appear in the next issue of *Sci-Tech News*. Lynn will begin her work as division planner for the 1992 San Francisco conference. I never before realized how much advanced work really goes into planning for an annual conference. It's worth it, though, especially for all the people you get to meet and the friends you make along the way.

I have just received word from SLA headquarters that our division will have a hospitality suite at the Marriott Rivercenter Hotel in San Antonio. We had such a good time last year that we decided to do it again. The open house/reception will be held Sunday night, June 9, co-hosted by the Aerospace Division and the Nuclear Science Division.

The drive to update the Engineering Division Directory is under way. The questionnaire is completed. Each of our division members should have received one by the time this issue of *Sci-Tech News* reaches you. Please respond as soon as possible. We have so many new members (see the list below of our new division members for August-October), and it will be exciting to have everyone in this directory.

I hope every one saw the cover of *Library Journal*, September 15, 1990. Monica Ertel, librarian at Apple Computer and Chair of SLA's Science-Technology Division, was the cover subject. Monica describes some of the problems corporate librarians face and gives some pointers and tips on gaining recognition in the corporation. She also describes the libraries involved in research on information management conducted by Apple.

The nominations committee is looking for candidates for the 1991-1993 term of office. We need to fill the position of CHAIR-ELECT, who will serve as chair for 1992-1993, and that of DIRECTOR, which is a two-year term. Please send your suggestions for nominations to Herb Seuss, W142 N7416 Oakwood R., Menomonee Falls, WI 53051.

Just a reminder that the Engineering Division will again be sponsoring two students

to attend the 1991 conference. Sara Davis needs those applications before March 15, 1991. If you know any interested students, have them send a copy of their resume and a short statement indicating how they would benefit professionally from attending SLA to:

Sara Davis  
Technical Information Services  
Jacobs Engineering Group  
PO Box 53495  
Houston, TX 77052.

Full details on this funding appeared on p. 32 of the October issue of *Sci-Tech News*.

#### ENGINEERING DIVISION POSTER SALE

The Engineering Division is selling a three-colored poster. **SPECIAL LIBRARIES - OPEN WINDOWS TO THE MIND**, as a fund-raising project. This 18"x24" poster is available for \$10.00 a copy. Remittance should be made in U.S. funds by check or money order, made payable to Engineering Division, SLA. Send orders to:

Mary Ann Schmidt  
Milwaukee School of Engineering  
Walter Schroeder Library  
PO Box 644  
Milwaukee, WI 53201-0644.

#### SLA TRANSPORTATION DIVISION UNION LIST AVAILABLE

The Transportation Division of SLA has a Union List of Periodicals for sale. Fifty-two Division member librarians are represented in the list which is made up of 1262 current

periodical titles in the transportation field. Each entry consists of the periodical title, its frequency, the place of publication, the publisher and the holdings information for each library. See description in Aerospace Division section of this issue for more details.

#### NEW SLA ENGINEERING DIVISION MEMBERS August-October 1990

Carol A. Adair  
Calocerinot Spina  
Engineers Library  
1020 Seventh N.St.  
Liverpool, NY 13088  
315-457-6711

Jacqueline M. Anderson  
5100 Highbridge St. #51D  
Fayetteville, NY 13066  
315-446-9120

Sandra G. Bennett  
8409 Northwood Pkwy  
New Hope, MN 55427  
612-541-2075

Shu-Fen-Chen  
3 Com Corp  
Tech Library  
2400 Condensa St.  
Santa Clara, CA 95052  
408-764-7227

Suzanne P. Cristina  
42 Mohegan Dr.  
West Hartford, CT 06117  
203-565-0389

Stephanie A. Fish  
Geo-Centers Inc. Library  
7 Wells Ave  
Newton Centre, MA 02159  
617-964-7070

Diane Garske  
Dynamic Research, Inc.  
Tech. Library  
355 Van Ness Ave  
Torrance, CA 90501  
213-212-5211

Richard C. Grahner  
W & H Pacific  
Info Ctr/Library  
1099 S.W. Columbia St.  
Portland, OR 97201  
503-227-0455

Connie M. Hartup  
Sequent Computer Systems  
M/S Z1-10D-3  
15450 SW Koll Parkway  
Beaverton, OR 97006  
503-526-4469

Patricia A. Haskins  
IBM Corp  
Libr/Maildrop 0127  
Rte 17C  
Oswego, NY 13827  
607-751-2725

Kate S. Herzog  
State University New York-Buffalo  
Sci Engg Library  
223A Capen Hall  
Buffalo, NY 14260  
716-636-2756

Sheik Md. Iqbal Hossain  
DMC TA-127 Middle Dadda  
Gulshan Dhaka-1212  
Bangladesh

Paul M. James  
102 Fern Cir.  
Waterbury, CT 06708

John C. Matylonek  
Drexel University/Hagerty Library  
32 & Chestnut Sts  
Philadelphia, PA 19104  
215-895-2766

Joyce M. Moran  
QSource Engineering Inc.  
Resource Info  
228 Byers Rd. #300  
Miamisburg, OH 45342  
513-866-4211

Ujwal P. Ranadive  
Columbia University  
Engg. Library  
422 Mudd Bldg  
New York, NY 10027  
212-854-8338

Marsha S. Reynolds  
8545 W. Dakota Ave, #8211  
Lakewood, CO 80226  
303-721-9111

Frazier W. Russell  
Wheelbrator Technologies  
Mktg  
Liberty La  
Hampton, NH 03842  
603-929-3457

Deborah K. Salmond  
Georgia Institute of Technology  
Res Inst-Info & Data Svcs  
222 O'Keefe Bldg  
Atlanta, GA 30332  
404-894-3863

Lawrence L. Tomikel  
Univ of Pittsburgh  
Engg Library  
126 Benedum Hall  
Pittsburgh, PA 15261  
412-624-9620

Edward Vlasas  
Santa Clara Univ  
Michel Orradre Library  
The Alameda  
Santa Clara, CA 95053  
408-554-4067

## HOW TO PREPARE FOR EC 92; ADVICE TO INFORMATION CENTERS

Adapted by **Pat Ricci**, Standards Information Consultant from *ANSI Global Standardization News*, Vol. 2, 1990

Beginning in 1992, products regulated and sold in Europe must meet testing and certification procedures for the European Certification (CE) mark. To do this, products and services must conform to the directives and standards set by the European Economic Community. Many of these will be ISO and IEC standards that already exist. Others will be new. If your company's products must obtain the CE, here are several agencies you should be familiar with:

- International Organization for Standards (ISO)
- International Electrotechnical Commission (IEC)
- National Institute of Standards and Technology (NIST)
- American National Standards Institute (ANSI) –the U.S. member body of ISO and IEC. ANSI has an office in Brussels to make information gathering easier.
- European Commission—issues regulatory directives
- European Committee for Standardization (CEN)—issues standards
- European Committee for Electrotechnical Standardization (CENELEC)—issues standards
- European Institute for Telecommunications (ETSI)—issues standards.

Testing and certification activities will determine if the products or services conform to the standards.

1. Determine if your product or service is covered by standards or directives from any of the above. There are several sources for this. The U.S. Department of Commerce has published *EC 199: A Commerce Department Analysis of European Community Directives*. ANSI can help you with standards from CEN, CENELEC, and ESTI. Pertinent U.S. standards bodies are also a source of information.

More information is available from NIST through its National Center for Standards and Certification Information (NCSCI). NCSCI will answer questions over the phone, 301/975-4040, but does not lend, sell or copy standards. ANSI does have prEN, prEVN, prAM (proposed or draft European standards); EN, ENV (European standards); and HD (harmonized document).

If there is an ISO or IEC standard, no European standard will be developed. (Development activity in ISO or IEC will take precedence over CEN, etc., unless progress is too slow. Consult the ISO, IEC catalogs or use DIALOG File 92.)

2. Monitor ongoing activity in the European organizations. EC Directives are standards that may specify a standards development process. ANSI's *Standards Reporter* lists proposed and final standards for European and international organizations.

3. Identify the U.S. standards organizations that represent the U.S. position to ISO, IEC, etc., such as ANSI, ASTM. Companies with staff members on these organizations' standards committees will be best informed on progress in Europe. Identify any of your company personnel who are active on stan-

dards committees. Cultivate them to form a partnership to gather information.

4. European operations of U.S. companies can be the main link to European developments and can be directly involved in the standards process. Try to identify contacts in these locations.

5. Membership in ANSI may be a cost-effective way to have influence. ANSI is the voice of the U.S. in the ISO and IEC. The present system of one country/one vote results in over-representation of European interests in ISO and EIC.

6. Obtain copies of final European standards before you are asked to provide them. Your product may have to be redesigned to fit the standards.

Several vendors are developing CD-ROM and microfiche services to assist in these processes. Two of these are Information Handling Services and National Standards Association.

## **Fund Your Research!**

### **Apply for an SLA Research Grant**

Attention researchers: SLA has \$15,000 grant money available to fund research in library and information science! (Naturally, an emphasis will be placed on the area of practical value to SLA members.)

SLA's Research Committee is soliciting proposals for funding under the new SLA Research Grants Program.

Proposals should concern one of the areas specified in the SLA Research Agenda—client satisfaction measures,

productivity and value measures, user concerns, and futuristic visions of the special library. Proposals involving surveys of the SLA membership are not encouraged. The grant will be awarded in June 1991.

For information and an application packet, please contact Tobi Brimsek, Director, Research, Association Headquarters, 1700 18th Street, NW, Washington, DC 20009 (202)234-4700 Fax (202)265-9317. ■

**Deadline for receiving proposals: February 28, 1991.**

# NUCLEAR SCIENCE DIVISION

The division has a special interest in Nuclear Science and in advanced energy systems such as nuclear, solar, wind, geothermal, and tidal. Its concern in these fields includes, but is not limited to, research, policy and analysis, development and production.

## FROM THE CHAIR

EILEEN CHEN



### VIENNA INTERNATIONAL CENTRE LIBRARY: A LIBRARY PROFILE

By

**Margaret H. Conyngham**  
Head, Reader Services Unit  
VIC Library  
and  
**Zilole Phiri**  
Acquisitions Librarian  
VIC Library

#### Introduction

The Vienna International Centre Library was created in 1979 with the merger of the International Atomic Energy Agency (IAEA) Library, established in 1958 in Vienna, and the United Nations Industrial Development Organization (UNIDO) Library, established

in 1967 in Vienna. Additional staff were added to the Library so that the United Nations units being relocated to Vienna from Geneva, New York, and other cities could be served

Because of its mandate to serve all these organizations, the Library is operated as a Vienna International Centre common service, with funding coming basically from the IAEA, UNIDO, and the UN. The Library provides information services to these organizations, including the UN Centre for Social Development and Humanitarian Affairs, the UN Division of Narcotic Drugs, the International Narcotics Control Board, the United Nations Office in Vienna, the United Nations Scientific Committee on the Effects of Atomic Radiation, the United Nations Fund for Drug Abuse Control, plus the UN Commission on International Trade Law and UN Relief and Works Agency under special arrangements. Support is given to the IAEA's Laboratory in Seibersdorf, to the International Centre for Theoretical Physics, Trieste, and to the International Laboratory of Marine Radioactivity, Monaco.

The Library is administered by the IAEA; within the IAEA, the Library is one of the Sections in the Division of Scientific and Technical Information under the Department of Nuclear Energy and Safety. There are cur-

rently 158 nations which are Member States of the various organizations of the VIC, many with Permanent Missions in Vienna, so the international character of the Library and its patrons is well established. Within this VIC complex we have the opportunity to work as librarians and international civil servants.

### The Collections

The Library collections are multidisciplinary, reflecting the interests and the programs of all the organizations at the VIC. They cover the broad spectrum of nuclear energy, industrial development, economics, sociology, computer science and international affairs. The operating language of the VIC Library is English, and we think that the VIC Library collections represent the largest English language library in Central Europe.

In addition to the standard information forms of books (90,000 titles), journals, and technical reports, the Library maintains some special collections. The United Nations Documents Collection contains more than one million documents and publications of the IAEA, UNIDO, and the UN and its specialized agencies, in paper copy and in microformat. It is not an archival nor a depository collection and the publications kept are those which will be of most use to the VIC staff. In addition to the documents there is a nuclear law collection and annual reports from various national and international institutions.

The VIC Library has a collection of 400 films (and some videocassettes) dealing primarily with the peaceful uses of nuclear energy. These materials have been donated over the years by Member States. They are made available for loan to universities, research

institutions, and communications media all over the world. There are approximately 350 other films in the collection which are unique or are archival in nature, and these are held for reference use only.

The Library makes a special effort to subscribe to a selection of newspapers from around the world representing the major languages and the makeup of the professional staff at the VIC. Of the over 4000 journal titles received, 1900 subscription in all subject areas are received free as a result of various gift and exchange agreements established and maintained by the Library.

### Automation

Extensive use is made of computer technology within the Library. In 1980 the Library began the development of databases for library applications and in 1990 eight databases are maintained and operated under UNESCO's CDS/ISIS software on the IAEA's IBM 3081 mainframe computers. The databases mostly heavily used are for acquisitions (LIAC), cataloging (LION), serials holdings (LISA) and circulation (LILO), the latter in conjunction with bar code scanners for a fully automated loans system. In 1989 the Library developed VICLINE, an online public access catalog which enables staff to access the Library's catalog and ascertain loan status from distant offices in the VIC complex.

In addition to the Library databases the reference Librarians also have access to others originating within the VIC; the International Nuclear Information System (INIS), the Agricultural Information System (AGRIS), and Industrial Development Abstracts (IDA). The United Nations Bibliographic Informa-

tion System (UNBIS) is accessed through the IAEA's mainframe computer, and use of external commercial databanks is extensive, providing a full range of information services to users. The Library has an active interlibrary loan program, and increased use is made of telex and telefac technology. CD-ROM equipment has been acquired and is used both by Acquisitions and Reference.

### The People

The Library is staffed by eleven professional and nineteen general service personnel from seventeen different countries - truly a small United Nations organization in itself. The professional staff is recruited internationally. Mr. Phiri came from the University of Zambia Veterinary School Library, having studied for the Bachelor of Arts degree from the University of Zambia and the Master of Library Science from North Carolina University in the USA. Ms. Conyngham was previously Chief of the Library Branch, U S. Nuclear Regulatory Commission in Washington, DC. Other professional colleagues come from the USSR, the Ukraine, Peru, Lebanon, Burma, Malaysia and the United States.

Each of the professional staff has been designated to act as a liaison officer to one of the VIC organizations to consult with staff regarding their information needs and to assist in collection development. Daily work is conducted in English, but the staff provide an excellent linguistic resource which is frequently called upon. Among them they speak more than 20 languages.

The VIC Library has many visitors who come to take a close look at our operations and to discuss technical issues. Although the

Library does not sponsor a regular training program, a small number of cost-free fellows from Member States are accepted annually, for short periods of time (usually a week or less). These are sponsored by their own governments or institutions. Regularly scheduled briefings and orientation tours are held for new staff and visitors, many from Library schools and libraries in Austria and other European countries.

### Library Publications

Among the publications of the VIC Library are a bi-weekly Accessions List, a Film Catalog, a list of Serial Titles Held by the Library, and a series of Current Awareness Bulletins. The latter, circulated to interested staff, are issued in 16 different subject series and are comprised of the tables of contents of the 500 most heavily used journals.

Special library work all over the world consists of providing information and services to support the program objectives of our various organizations, and it is amazing how similar libraries are. However, the opportunity to do all this in an international environment with colleagues from around the world and with multi-national clientele is a privilege, and we feel fortunate that our chosen profession has provided us with the challenges and experiences of working in such an interesting international setting.

## MEMBERSHIP NEWS

The Nuclear Science Division would like to welcome the following new members:

Judith E. LeBlanc  
Sal Casillo  
Erin M. Nagorske



## NEW DIRECTORY

The Division is going to try to publish an updated directory. Therefore, would all members of the Nuclear Science Division please check their listing in the last 1989-1990 edition of the Directory. If some information needs to be changed, please send a copy of the following form no later than February 1, 1991, with corrections to:

Cynthia Ortiz, NSD Chair-elect  
U.S. Department of Energy  
NV Technical Library, Mail Stop 505  
P.O. Box 98518  
Las Vegas, NV 89193-8518

Name

Organization

Address

City/State/Zip

( )  
Phone Number

Chapter Affiliation

# SCIENCE-TECHNOLOGY DIVISION

The objectives of the Science-Technology Division shall be: to draw together those members of the Special Libraries Association having an interest in the role of library and information science as applied to the recording, retrieval and dissemination of knowledge and information in all areas of science and technology; and to promote and improve the communication, dissemination and use of such knowledge for the benefit of libraries and their users.

## FROM THE CHAIR

MONICA ERTEL



### SCI-TECH AT THE LI- BRARY OF CON- GRESS

**“Science and Tech-  
nology at the Li-  
brary of Congress”**  
was the joint SLA/  
LC workshop held  
October 24-25 in  
Washington, DC.

This two day seminar, held at the granddaddy of all libraries, the Library of Congress, was attended by approximately 25 sci-tech librarians and was a fascinating look into the resources available in the Library of Congress’ Science and Technology Division. It was hosted by Joe Price, Chief of the S-T Division and co-sponsored by the Sci-Tech Division of SLA. Joe and his crew are to be commended for a wonderful program! Wilda Newman and I left the two days with a new understanding of the resources in our national library and how we can take advantage of them.

The workshop began with an overview of the Science and Technology Division by Joe Price and quickly moved into some of the more specific programs within this group. We learned about the Cold Regions Bibliography Project which has been ongoing for 35 years, contains over 200,000 citations with abstracts

and is now available on CD-ROM. We also had a very informative session on Technical Reports at LC and learned that this collection numbers over 4 million items! It was interesting to many of us to note that LC collects not only US government and military standards but also international standards such as CCITT, ISO, and Chinese and Russians standards.

Suzanne Thorin, head of the Machine-Readable Reading Room, addressed the ROLLUP project, a pilot project involving 14 libraries in the U.S. to test online access to the Library of Congress collection. She discussed some results of the initial pilot and discussed LC’s plans for the next phase, which will involve extending access to the 50 state libraries for a two-year test beginning January 15.

My favorite part of the program was a discussion by two LC staff members entitled “Landmarks of Science Publishing at LC.” Leonard Bruno and Ruth Freitag, both senior science specialists in the S-T Division. Len has published a book *The Tradition of Science: Landmarks of Western Science in the Collections of the Library of Congress* and Ruth has published an extensive bibliography on Halley’s comet. Both gave delightful, personal presentations about their experiences. Len spoke about the advantage of not being formally trained in the science area as he

began to work on his book because he did not begin his research with preconceived ideas or philosophies. Like most good librarians, he knew how to do research, synthesize the facts and write something sensible. His book is a beautiful example of this. Ruth talked about how her book came about as a response to a reference question on Halley's comet. Her interest in this comet was piqued by the research she did to answer the inquiry and she began to put together a bibliography of sources. As she got more involved in the research and had compiled citations from the traditional resources, she began to add information from such sources as magazine ads in 1910 when the comet last appeared. She described her experience as "turbulent but most enjoyable!" By the time she had the book published, she had met such luminaries as Carl Sagan (who thanked her in the introduction to his book for introducing him to the fascinating world of bibliography) and Isaac Asimov, who penned her a personal limerick about herself and the comet as they were aboard a ship near Australia viewing the comet's appearance! Both Len and Ruth had two recommendations for would-be writers—write about what interests you and don't worry about being a generalist instead of a specialist in the subject area. Both of them commented that because of this they were open to finding information in sources you would never expect.

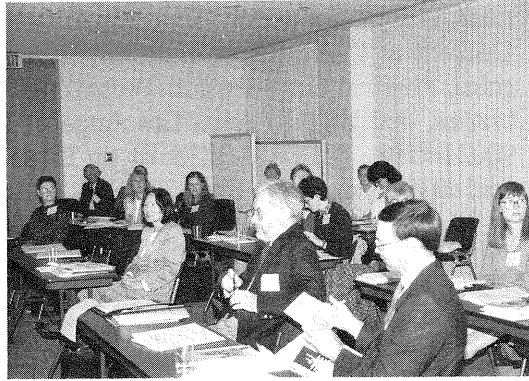
Connie Carter, the dynamic head of the reference section within the S-T Division, gave several wonderful presentations about the Science in the Schools projects at LC and about the Reference services offered by LC. Connie gave an entertaining and riveting presentation about how her section handles the reference inquiries received by the S-T Divi-

sion and had all of us in the audience yearning to be reference librarians!

By this time, we were very interested in what Chris Wright, head of Document Delivery and ILL, could tell us about borrowing items from LC. He told us that LC receives over 50,000 requests a year and that they like to be referred to as the "library of last resort." They don't lend books in print, but they will lend out of print books if they are not available in easy to access sources, such as those available through University Microfilms. They will photocopy, gratis, up to 25 pages and try to turn around requests within two weeks. They request that inquiries be made on ALA or OCLC ILL forms and be as completely verified as possible in order to expedite your order.

Other presentations included a fascinating look at the special S-T collections in LC, and a wonderful collection of film clips on Wednesday evening compiled by Pat Loughney of the Library's Motion Picture, Broadcasting and Recorded Sound Division.

This full two-day workshop ended with a delicious lunch and discussion with the Science Planning Team at LC as they solicited our feedback as to services and resources we would like to see offered by LC. Concluding the workshop were a series of tours to areas such as the Science Reading Room, the Rare Book Reading Room, the Preservation Lab and the Geography and Map Reading Room. I left Washington full of renewed respect, admiration and knowledge about the fantastic resources available in our national library. My hat goes off to Joe Price and his staff for such a worthwhile two days!



Attendees and Speakers at the Joint Workshop at the Library of Congress on October 24-25, 1990, Co-sponsored by the Library of Congress and the Science-Technology Division. (Photos by Jim Olsen)

### WE NEED YOU!

Dorothy McGarry, our chair-elect, needs you! Dorothy is looking for people to serve on committees for 1991/1992. She is very interested in hearing from people who might like to serve on committees such as Strategic Planning, Public Relations, Student Relations, Hospitality and more. You can contact Dorothy at University of California Los Angeles, Physical Sciences and Technology Libraries, 405 Hilgard Ave., Los Angeles, CA 90024-1598. (213)825-3438; or on Bitnet at ecz5ctt@uclamvs.

### SAN ANTONIO 1991

One of our Sci-Tech member from Texas, Suzanne Ogden (Frito-Lay), called with a suggestion for this year's conference goes. Since many of us make our travel plans early, she asked me to remind our members to remember that many of the field trips on Thursday last all day. Suzanne recommends that you don't leave San Antonio early - you'll want to stay for the interesting field trips and just to enjoy some of that down home Texas hospitality!

### SIBERIAN SCI-TECH LIBRARIES

While recently perusing an electronic bulletin board, the attention of one of our Sci-Tech members, Ed Valauskas, (Merrian Center Library) was caught by a request from a librarian from Siberia. Irene Gunzer, Secretary of the Library, State Public Library of Scientific and Technical Literature in Novosibirsk was looking for other sci-tech libraries eager to establish an information exchange. I wrote Ms. Gunzer a letter describing the Sci-Tech Division and our interest in cooperating with her institution. She sent back a long letter (in Russian) describing her library and some of

their publications. In this era of perestroika and glasnost, libraries can and should be an important vehicle for sharing information.

### DON'T FORGET TO VOTE!

You will soon be receiving your ballots for Sci-Tech Chair-Elect and Secretary for 1992/93. I'd like to give special thanks to Ina Brownridge from SUNY Binghamton and Paul Peterson from Linda Hall Library for their dedicated work and their excellent slate of candidates. Vote early!

### NEW ASSISTANT ADVERTISING MANAGER

Mary Lee Kennedy, Information Scientist from Sherritt Gordon Ltd. in Canada, has accepted the position of Assistant Advertising Manager. Mary Lee will be working with Wilda Newman this year and has agreed to the position with understanding that she will assume full responsibility for Advertising Manager next year. She can be reached at Sherritt Gordon Ltd., Westaim Bldg, Ft. Saskatchewan, Alberta, Canada T8L3W4 403/992-5066, fax: 403/992-5010. Congratulations, Mary Lee!

### MASTERMINDING TOMORROW'S INFORMATION ...

Creative Strategies for the '90s

Special Libraries Association  
82nd Annual Conference  
San Antonio, Texas  
June 8-13, 1991

## INTERNATIONAL SCIENCE AND TECHNOLOGY LIBRARIANSHIP

**Nancy D. Anderson**

Mathematics Librarian

University of IL at Urbana-Champaign  
Urbana, Illinois 61801

SLA Representative to Science and  
Technology Libraries Section, IFLA

This past summer I participated in meetings held in Scandinavia of two international library associations: IFLA (International Federation of Library Associations and Institutions) and IATUL (International Association of Technological University Libraries). Reports of these meetings has been of interest to sci-tech librarians before, and I think you will find them informative this year, too. Monica Ertel, Chair of the Sci-Tech Division and member of the IFLA Information Technology Standing Committee has already reported briefly on the work of that committee in the October 1990 issue of *Sci-Tech News* so I will omit them from my report. Please write me for more information about either meeting, and I will send you what I can.

The 56th IFLA Conference was held in Stockholm on 18-24 August 1990. The theme was "Libraries— Information for Knowledge." Many Americans attended this conference, including Monica Ertel, Dorothy McGarry, and Wilda Newman from Sci-Tech Division. I would like to encourage your attendance at upcoming IFLA Conferences. The theme of the 18-24 1991 Moscow conference is "Libraries and Culture: Their Relationship"; the theme of 30 August-5 September 1992 New Delhi conference is "Library and Information Policy Perspectives"; and the theme of Au-

gust 1993 Barcelona conference is "The Universal Library." Havana has been announced as the 1994 conference site. Papers are given in contributed papers sessions and in programs arranged by the Standing Committees. Planning is generally two years in advance so if you would like to give a paper, start thinking about the conference theme for India.

I wore two hats this year at the IFLA conference: I am Secretary of the Science and Technology Libraries Standing Committee and I am SLA's representative to that committee. The Science and Technology Standing Committee put together a pretty interesting program this year, asking friends and experts in the field of user education to talk on the interface between it and information technology. Nancy Fjallbrant (Chalmers University of Technology Library, Goteborg) spoke on "Why User Education and How Can Information Technology Help." Jean Michel (Centre Pédagogique de Documentation et de Communication, Ecole Nationale des Ponts et Chaussées) broke his arm right before the conference so a member of the SC gave the paper, "La Maîtrise Stratégique de l'Information Composante Essentielle de la Formation des Ingénieurs." I have arranged a translation into English, "The Strategic Management of Information: An Essential Element in the Training of Engineers." Ann Irving (Department of Library and Information Studies, University of Loughborough) talked on "Information Skills Across the Curriculum." Also presented at the Science and Technology program was a proposal to establish an IFLA Round Table on User Education. This proposal was forwarded to IFLA's Professional Board for action. The feeling among those attending is that many of the standing committees do work in this area

and its importance to the profession needs more focus which a roundtable could provide.

The Science and Technology Libraries made progress during the past year on completing its project, "A World Survey of Availability of Theses in Science and Technology." The Standing Committee will be producing a guide (to guides) to sources of doctoral dissertations in science and technology, with a listing for each country (each entry can run from a few lines to several pages) of the institutions with collections of doctoral dissertations. For those of you who have had to track down dissertations from overseas, this guide should really be a welcome addition to your reference collections! The guide will be about 100 pages and list pricing and format in which guides are available. Also, a new project is being started. The SC decided that an informational brochure on the Section of Science and Technology Libraries should be drafted to publicize the activities of the Section and directed toward those libraries from the Third World (and under-represented in the Section's membership).

IATUL has very close ties with the IFLA Science and Technology SC and met twice in conjunction with the IFLA Conference. The first meeting was held August 23rd at the Royal Institute of Technology Library. Annette Winkel (Librarian at Polytechnique Institut, Lausanne) talked on, "The Impact of OPAC's on libraries of science and technology" followed by a panel discussion of what's going on at selected institutions in the US and Europe. Listeners at this session asked if IATUL shouldn't get involved in designing an analysis of how users are using the various systems and if IATUL shouldn't look into how/what insti-

tutions have designed help screens. Afterwards, we toured the Kungl Tekniska Hogskolans Bibliothek, where I became quite impressed with their OPAC: it had, as I recall, natural language subject searching and it was programmed so that if you didn't get an exact match on your search it displayed screen(s) of similar items, asking you to make a selection. I was like a kid in a candy store! (I don't have any papers from this meeting.)

The next IATUL session followed IFLA and might be described by some as a bit of a boondoggle. The attendees embarked on a very nice passenger ferry for an overnight cruise from Stockholm to Turku or Abo (the name of this Finnish town in Swedish and pronounced Obu). However, I discovered that being confined in pleasant surroundings on a boat with an excellent smorgasbord is a very nice way to get to know your colleagues. The next three days (Saturday through Monday, 25-27 August) were spent at the Abo Akademi. The theme of this conference was "The Changing Role of the Library Manager in the Face of New Technologies." These meetings were fascinating and informative (at times I felt like a sheep in wolf's clothing as I listened to the library directors talk about how they direct) and at times very poignant (when several science and technology librarians from Hungary, Estonia, and East Germany recounted their experiences before and after the recent political liberation—all need our attention and help now). Day 1 was spent in a strategic planning workshop, organized by Maurice Line, who now that he's retired from the British Lending Library, consults on improving library operations. I thought his paper, "Strategic Planning as an Instrument of Improving Library Quality" was particularly good. I will share my copy

with anyone. On days 2 and 3 papers on how various library directors developed strategies for change were presented. Miriam Drake (Georgia Tech) gave a forceful presentation on "Library Manager-Chief Information Officer." I don't have her paper or others from these sessions, but most will be published during the coming year in *IATUL Quarterly*.

Next year the IATUL satellite meeting will precede the IFLA Conference. It will be in Tallinn, capitol of Estonia, on 12-16 August 1991. The theme of this conference will be "Universal Availability of Scientific Publications" with sub-themes on international library networks and access to the grey literature. If any of you are interested in attending, please contact me and I will pass on whatever information I know (more should be coming out soon about the conference) about accommodations, contributed papers, and travel.

I hope I've given you a sense of what goes on at IFLA and IATUL conferences. Please write me if you would like more information. SLA is encouraging our involvement in international librarianship, and this is an awfully good way to learn about what others are doing overseas, to become involved (SLA will be nominating a librarian to serve on the Science and Technology Libraries Section Standing Committee), and to have a superb vacation with new friends!

## DUPLICATES EXCHANGE PROGRAM

**Cathy Williamson-Chair**

The Sci-Tech Division's Duplicates  
Exchange Program has tripled in size since

1989. There are currently 39 participating libraries or information centers from across the United States and Canada. The institutions represented in the program include a variety of research corporations, observatories and university science libraries. Members of the program send offering lists annually and in return receive lists from other libraries. The purpose of the exchange program is to allow organizations the opportunity to dispose of surplus publications in a useful, economical manner.

In order to further this goal, the Duplicates Exchange Committee is currently investigating a pilot study with BookQuest/SerialsQuest: The Online Networks. This is an electronic matching service produced by ABACIS, a Faxon Company. The pilot study will allow member libraries to evaluate the effectiveness of electronic messaging as a means of notifying libraries when serials "wanted" match serials "offered" from a variety of sources, including exchange programs. The committee will be conducting a survey of member libraries during the next month to identify candidates for the pilot study. The results of the survey and plans for the study will be presented at SLA's Winter Meeting in Washington, D. C., between January 23-25. For more information contact Cathy Williamson at the address below.

### Duplicates Exchange Committee Members

Cathy Williamson - Chairperson  
Johns Hopkins University  
Applied Physics Laboratory  
R. E. Gibson Library  
5-18 Johns Hopkins Road  
Laurel, MD 20723



Sue Albright  
IMED Corporation  
9925 Carroll Canyon Road  
San Diego, CA 92131

Sandy Cobb  
G. E. Lighting  
ATD Library No. 5430  
Nela Park  
Cleveland, OH 44112

Francisca Co  
Science/Technology Cataloger  
Memphis State University Library  
Memphis, TN 38152

Karola Fuchs  
Software Engineering Institute  
4500 Fifth Avenue  
Pittsburgh, PA 15213

### Procedures

1. Membership rolls will always be open. A List of Member Libraries will be sent by the Duplicates Exchange Chair on January 1 and July 1 every year.

2. Member Libraries must send a type-written publication Offering List at least once per year to all Member Libraries and to the Duplicates Exchange Chair. This list can be sent at any time.

3. The Offering Lists will be in alphabetical order by title within each type of publication; i.e. Magazines A-Z, Conference Proceedings A-Z, etc. Periodic publications will include dates. The Offering Lists will also include a contact person.

4. Requesting Libraries will respond by mail directly to the contact person at the Offering Library. Requesting Libraries will indicate on the Offering List the publications

desired and will attach self-addressed mailing labels to the Offering List.

5. Offering Libraries will send the publications to Requesting Libraries on a first come, first serve basis with no notification of unavailability. Offering Libraries will pay the transportation cost of the publications to the Requesting Libraries.

6. Requesting Libraries will repay transportation costs of publications over \$2.00 to the Offering Libraries by stamps or by checks.

7. Want Lists will be handled in a similar manner.

8. To join, contact the Science-Technology Division Duplicates Exchange Chair:

**Cathy Williamson**  
Johns Hopkins University  
Applied Physics Laboratory  
R. E. Gibson Library  
5-18 Johns Hopkins Road  
Laurel, MD 20723  
(301) 953-5000 Ext. 4828

### List of Member Libraries

Nov 29, 1990

Arthur Lifshin  
Adelphi University  
Science Library  
South Avenue  
Garden City, NY 11530

Shari McAllister  
Alcon Laboratories, Inc.  
6201 South Freeway R1-30  
Fort Worth, TX 76134-2099

Liz Bryson, Librarian  
Canada-France-Hawaii Telescope (CFHT)  
P.O. Box 1597  
Kamuela, HI 96743-1597

Merilee Worsley  
**COMSAT**  
22300 Comsat Drive  
Clarksburg, MD 20871

Sandy Cobb  
**G.E. Lighting**  
ATD Library No. 5430  
Nela Park  
Cleveland, OH 44112

Marilyn Moore  
**Hawaii Institute of Geophysics**  
Library, Room 252  
2525 Correa Road  
Honolulu, HI 96822

John Berry  
**IIT Research Institute**  
185 Admiral Cochrane Drive  
Annapolis, MD 21401

Sue Albright  
**IMED Corporation**  
9775 Businesspark Avenue  
San Diego, CA 92131-1699

Randi L. Stocker  
**Indiana University-Purdue University**  
Science and Engineering Library  
1201 East 38th Street  
Indianapolis, IN 46205-2868

Cathy Van Atta  
**Kitt Peak National Observatory**  
P.O. Box 26732  
Tuscon, AZ 85726

Susan Vollmuth  
**Lorillard, Inc./Research Center**  
420 English Street  
P.O. Box 21688  
Greensboro, NC 27420-1688

Daran L. Bishop  
Information Coordinator  
**Marathon Oil Company**  
P.O. Box 3128  
Houston, TX 77253

**Martin Marietta Aero & Naval Systems**  
Technical Information Center, MP E100  
103 Chesapeake Park Plaza  
Baltimore, MD 21220  
Attn: Deborah C. Isenhardt

**McDonnell Douglas Corporation**  
MDRL Library  
P.O. Box 516, Dept. 022, Bldg. 110  
St. Louis, MO 63166

Victoria Trager  
**MCNC Library**  
P.O. Box 12889  
RTP, NC 27709

Jim Damico  
**Midwest Research Institute**  
Patterson Library  
425 Volker Blvd  
Kansas City, MO 64110

Kathleen Howard  
**Miles Inc. Pharmacy Division Library**  
400 Morgan Lane  
West Haven, CT 06516

Patricia Brown  
**Navistar International Transportation Corp.**  
Engine Engineering Information Center  
10400 West North Avenue  
Melrose Park, IL 60160

Jan Robinson  
**NCR Corporation**  
Peripheral Products Division Library  
3718 N. Rock Road  
Wichita, KS 67226-1397

Martha Thayer  
**NOAA Library E/OC43**  
7600 Sand Point Way NE, Bldg 3  
Seattle, WA 98115

Merle Bumstead  
**NOVA HUSKY Research Corp.**  
Information Services  
2928-16 Street N.E.  
Calgary, Alberta Canada T2E 7K7

Connie Britton  
**Library, Ohio Agricultural Research and  
Development Center**  
1680 Madison Avenue  
Wooster, OH 44691-4096

Dori Whitehurst  
**PQ Corporation**  
280 Cedar Grove Road  
Conshohocken, PA 19428

**Pulp & Paper Research Institute of Canada**  
Vancouver Laboratory Library  
3800 Westbrook Mall  
Vancouver, B. C. Canada V6S 2L9

Barbara Gazda  
Library-Duplicate Exchange  
**R.B. Russell Agricultural Research Center**  
P.O. Box 5677  
Athens, GA 30613

Lynne C. Branche Brown  
**Raytheon Company**  
Technical Information Center  
1001 Boston Post Rd., MS 2-2-2964  
Marlboro, MA 01752

Emily Westbrook  
**Rogers Corporation**  
Lurie Library  
One Technology Drive  
Rogers, CT 06263

Doris Y. Hughes  
**Siecor Corporation Corporate Library**  
489 Siecor Park  
Hickory, NC 28603-0489

Rita Matchler  
**Sinai Hospital of Baltimore**  
Eisenberg Medical Staff Library  
Belvedere and Greenspring Avenues  
Baltimore, MD 21215

Karola Fuchs  
**Software Engineering Institute**  
4500 Fifth Avenue  
Pittsburgh, PA 15213

Barbara Snead  
**Space Telescope Science Institute Library**  
3700 San Martin Drive  
Baltimore, MD 21218

**Sprague Electric Company**  
Research Center  
96 Marshall Street  
North Adams, MA 01247-2411

Jeff Downing  
**SSC Laboratory Library**  
2550 Beckleymeade Ave. MS-2010  
Dallas, TX 75237

**University of Kansas**  
Engineering Library  
Attn: Exchange & Gifts  
1012 Learned Hall  
Lawrence, KS 66045

Susan Hewitt  
**University of Kansas**  
Anschutz Science Library  
Lawrence, KS 66045-2800

Sherry Romine  
**University of Missouri-Rolla**  
Library- Duplicate Periodical Exchange  
Rolla, MO 65401-0249

Judith Kraatz  
**Valero Energy Corporation**  
P.O. Box 500  
San Antonio, TX 78292-0500

P. Michael McCulley  
**W. R. Grace & Co. - Conn.**  
Washington Research Center  
7379 Route 32  
Columbia, MD 21044

Carolyn Sidey  
**Xerox Research Centre of Canada**  
Technical Information Centre  
2660 Speakman Drive  
Mississauga, Ontario L5K 2L1

## SCI-TECH DIVISION STRATEGIC PLAN COMMITTEE

R. P. Hulser, Chair

STRATEGIC PLAN DRAFT DOCUMENT,  
NOVEMBER 1990

### Mission

The mission of the Division is to draw together those members of the Special Libraries Association having an interest in science and technology; to provide access to information about the continuing development of new technologies as they apply to libraries and information centers, not only in science and technology but in all areas served by the association; to provide its members the technical information and skills they will need to function in the 21st century. To accomplish this mission, the Division must assume an active leadership role and provide members with ample forums for communication, education and professional growth.

### History

The Science-Technology Division originated as the Technology Group in 1925. The present name was adopted in 1950. The divisions of Chemistry, Engineering, Aerospace, Metals/Materials, Nuclear Science, Petroleum & Energy Resources, Pharmaceutical, and Public Utilities all began as sections of the Science-Technology Division.

### Five-Year Outlook

Members will join the Division to keep up with developments in the field of information management and to exchange professional expertise. The majority of members will

come from a multi-disciplinary environment and will perform a combination of duties for their organizations. In the past, involvement and participation in Division activities seem to be positive factors for membership retention. Ways should be found and programs developed to engage members at the local and regional level.

New information handling technologies continue to have an impact on the operations of libraries. Library and information center staff will need to learn how to use these for the benefit of their users.

We will continue to see the integration of currently "new and experimental" into the routine operation of the Special Library. Improved and expanded telecommunications systems will change the way information is disseminated and will have an effect on the operation of the Special Library. We live in an era of rapid change. We need to recognize that we may not be able to predict the future. We need to find ways to function in an era of uncertainty.

### Assumptions

Assumptions are factors that must be taken into consideration when strategic planning occurs. It must be realized that external as well as internal factors influence the division's future in an unpredictable way. In this document, assumptions are used to assist in the assessment of some of the risks the division faces and, in some instances, these assumptions can lead to actions that could reduce some of the risks.

1. The information industry will continue to grow.

A. New information sources will continue to be published.

B. There will be an increasing demand for science and technology information.

C. There will be an increase in the population of information professionals.

2. As a result of continuing growth of information, related expenditures will continue their upward trend.

3. Fundamental changes in information delivery systems will take place, with broader utilization of computers resulting in background changes for information delivery.

A. Greater emphasis will be placed on product quality and services that are provided economically.

B. Continued pressure will exist to purchase selectively and effectively.

C. Increased awareness and concern over copyright privileges.

5. Increasing research and development costs will stimulate industry consolidation, joint venture activity, and a shift to foreign-based research and development. This could result in a zero growth rate in science and technology libraries in the United States.

6. Although there will be an increase in the number of end-user information delivery systems, librarians will continue to have a major role as manager or interpreter of these systems.

### Objectives

1. Strengthen all aspects of membership to maintain and increase growth of the Division, including:

A. Retention and increase of current membership

B. Increase of membership participating in Division activities

C. Provide membership input to Division Leadership.

2. Increase cooperation with other divisions within the Association.

3. Develop a more active project and publication program.

4. Improve control over Division finances.

5. Increase Division participation in activities at the local level.

### Goals and Action Plan

1. Effectively implement the Strategic Plan:

#### **Actions:**

A. A committee will be formed with the advice and consent of the Executive Board to facilitate and carry out the actions described in this document.

2. Retain current members.

#### **Actions:**

A. A form letter, developed by the Membership Committee, will be sent to anyone who discontinues Division affiliation. The letter will encourage the members to renew their Sci-Tech Division membership and, if they decide not to, will ask them to state their reasons for dropping. The Membership Committee will make this information available to the Division Chairperson in the committee's annual report.

B. Encourage current members to volunteer for committees/special projects by

promoting these at meetings or special mailings of promotional materials to targeted individuals or institutions.

C. Include a volunteer form in *Sci-Tech News*.

D. Provide a mentor/contact person for new members for their first year. This would be especially important to new library school graduates.

3. Recruit new members. The SLA membership application has been the major source of information leading to a decision on division affiliation. Prospective members need more descriptive information about the Sci-Tech Division and its activities.

**Actions:**

A. Recruit members in library schools by focusing on networking and employment recruitment opportunities.

B. Develop a brochure for the Division to be sent to prospective members, such as student members and chapters.

4. Increase membership participation. Involvement and participation in Division activities are positive factors for membership and chapters.

**Actions:**

A. Sponsor regional and local meetings. Regional local members would be responsible for the meeting arrangements and publicity and the Division would be responsible for the program. A person (possibly the Chair-Elect of the Division) should be designated to carry out this function as part of the official duties.

B. Assume a leadership role in developing tours and programs utilizing local members at annual conferences.

5. Provide membership input to Division leadership:

**Actions:**

A. Conduct a membership survey every other year. This could take the form of a mailed survey, possibly printed in *Sci-Tech News*, and/or discuss at a Chapter meetings, and/or devote time at the annual business meeting for feedback. This will keep the Division leadership in touch with member needs and also help promote innovation within the Division.

6. Enhance the climate for information exchange by providing a focus and promoting special interest groups within the Division that encourage and nurture the free exchange of information. This will also overcome a loss of members to the more specialized divisions of the Association.

**Actions:**

A. Establish subject or job emphasis sections or round-tables as necessary. Begin such meetings with a theme speaker, then have break-out sessions for separate discussions as the theme applies to more specific interests.

B. Encourage regional group meetings of several chapters and include non-members.

7. Develop positive and productive relationships with other divisions. Whenever possible, seek common ground, understanding and support on issues.

**Actions:**

A. Include in *Sci-Tech News* reviews of reference sources of interest to all the divisions who use *Sci-Tech News* as their official publication and include articles on the cutting edge of new developments in library technology.

B. Encourage projects with other divisions. The Chair and Chair-elect will look for cooperative efforts with other divisions, such as co-sponsorship of regional meetings, joint projects, continuing education courses, awards, etc., which would be beneficial for the Sci-Tech Division membership.

8. Support inter-division communications, increase general awareness of important issues, and assist in the development of a consensus on these issues.

**Actions:**

A. Encourage exchanges between corporate, university and public library members.

B. Provide mechanisms to keep members aware of new technologies as they impact library and information science.

9. Support the Association in actions regarding legislation and government policies at international, national, and state/provincial levels which provide incentives for an improved information environment.

10. Transfer to other information professionals, through a variety of educational and informational tools, the knowledge accumulated during and through Division activities.

**Actions:**

A. Plan publications useful to information professionals

B. The Projects Committee will investigate sponsorship of an issue of *Special Libraries*, update the Awards Bibliography, and other projects.

C. Promote Division activities to non-members.

11. Maintain and improve the fiscal outlook of *Sci-Tech News*.

**Actions:**

A. Maintain control of *Sci-Tech News* finances and develop the publication into a self-supporting entity.

12. Improve the Division's and each professional's image by encouraging consistently high standards of performance in all activities.

### ANNOUNCEMENT OF SCI-TECH TRAVEL STIPEND AWARD

For library school students and/or first time conference attendees, the Sci-Tech Division of the Special Libraries Association is sponsoring a travel stipend of up to \$600.00 toward payment of expenses incurred while attending the Association's Annual Conference, San Antonio, June 8-12, 1991.

Qualifications:

1. Hold an individual membership in the Special Libraries Association;

2. Be attending your first SLA Annual Conference;

3. Write and submit an essay of 500 words or fewer addressing the theme of the Association's Annual conference or addressing a subject of interest to science and technology librarians.

Special Instructions:

4. Give your name, address and a statement of your qualifications for the award on one page. On the same page, please note whether you are planning to apply for travel awards given by other divisions of SLA. Although no applicant will be disqualified if also applying for other awards, it is our intent to avoid duplication with other divisions.

5. In order to preserve anonymity, please type the essay (Qualification #3) on separate pages, double spaced.

6. There is no special application form to use in applying for the award.

#### Notes

1. Neatness, spelling and grammar will count in judging. Essays exceeding the 500-word limit will be automatically disqualified.

2. The Sci-Tech Division Awards Committee reserves the right not to award a travel stipend.

3. If more than one award is earned by an applicant, the dollar amount given will be the sum of the awards and will not exceed a maximum of \$600.00, in accordance with Division guidelines.

Deadline for Applications for the Award:

**March 1, 1991**

Submit Entries for the Award to:

**Nancy Anderson**

University of Illinois

Mathematics Library

216 Altgeld Hall

1409 West Green Street

Urbana, Illinois 61801

### ANNOUNCEMENT OF SCI-TECH ACHIEVEMENT AWARD

The Sci-Tech Achievement Award is the highest award presented by the Division, and is reserved for those recipients whose professional work is marked by distinction and dedication to scientific and technical librarianship. The purpose of the award is to recognize those Division members who have made outstanding contributions to the Division, and/or to the literature of science and technology

librarianship. The \$250.00 award will be presented annually, with an appropriate scroll describing the reason for the award. The Sci-Tech Division Awards Committee reserves the right to withhold the award if a sufficient number of appropriate candidates is not nominated.

#### Qualifications

1. Be a member of the Special Libraries Association;

2. Be a member of the Sci-Tech Division for at least three years;

3. Not be a currently elected Sci-Tech Division officer;

4. Be working currently in a library, information center, library school or other information-related capacity.

#### Nominations

Send a typed, signed statement to the Awards Committee Chair, including information on the candidate's professional career, committee activities or offices held within the Division, special Division projects or services, publications, and any other related functions that qualify the person for the award. Please include the name, position, business address, and telephone number of the nominee. Documentation, although not mandatory, may include a current curriculum vitae for the candidate, significant publications, supporting letter, etc.

Deadline for Nominations: **March 1, 1991.**

Submit nominations to:

**Nancy D. Anderson, Awards Chair**

University of Illinois

Mathematics Library

216 Altgeld Hall

1409 West Green Street

Urbana, Illinois 601



## NTIS Gets Down to Business

The last time you searched online for information on consumer affairs, international commerce, minority enterprises, banking and finance, or economics, did you find everything your senior management needed?

If you didn't search NTIS, with its coverage of *U.S. and foreign government-issued reports*, you missed some useful information. Each year, NTIS adds thousands of documents and data files on business subjects ranging from foreign direct investment in the U.S to emerging trends in energy production, finance, meat and dairy monthly import statistics, the Japan fishery trade, health coverage in small businesses and more. *Information not found anywhere else. Information backed up by NTIS' full online document ordering service through your preferred online vendor.*

The next time you're searching online on a business topic, search NTIS. You'll find we really *do* mean business.

For a FREE search guide, call NTIS at (703) 487-4650. Ask for the guide to BRS (PR-831), DIALOG (PR-829), ORBIT (PR-830), or STN (PR-837).



U.S. Department of Commerce  
National Technical Information Service  
Springfield, VA 22161

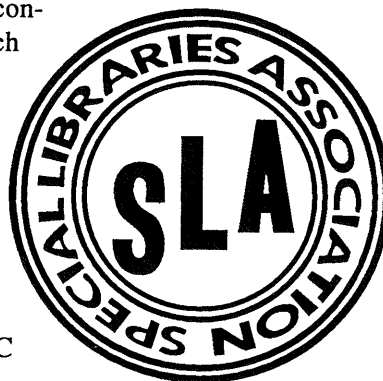
**Spread the News!**

## Publish News of Your Research in the Journal for Information Professionals

A new column in *Special Libraries*, "Research Activity" is becoming the new network for researchers in information science. First appearing in the Winter 1990 issue of SLA's journal, "Research Activity" provides a forum for researchers to let their colleagues know of the facts, theories, and trends they are unearthing.

Through short descriptions of the research being conducted, as well as contact information for each researcher, the column provides a network of resources for researchers from all sectors of the profession.

Tap into one of SLA's newest informal networks: contribute news of your research for publication in "Research Activity." Send a brief description to Tobi Brimsek, Director, Research, SLA, 1700 Eighteenth Street, NW, Washington, DC (202) 234-4700 Fax (202)265-9317.



## NETWORKING COMMITTEE

Fred Stoss, Chair

### Sci-Tech Affiliation Survey--Who Are We?

In the last issue of Sci-Tech News (Vol. 44, No. 4, October 1990) I described a plan for the Division's Networking Committee. I mentioned that a survey would be conducted to determine the extent of the Division memberships networking outside of the Special Libraries Association.

Now we are ready to urge you to **take part in the survey**, using the form given below. The first part of it asks you to list those library and information societies in which you currently hold a membership, also listing offices you may have held.

The second part of the survey asks you to do the same thing for other professional associations or societies to which you belong and to list any offices you may have held in them. The last part asks you to identify your work setting.

Please note: **You are not requested to submit your name, address or phone number.** You may volunteer that information if you wish. **This survey is only for members of the Sci-Tech Division.** Thank you for taking the time to assist the Division learn more about itself. If you have any questions, please contact me.

I. Sci-Tech Members' Affiliation in other information/library associations, such as American Society for Information Science or Medical Library Association.

---

---

---

Offices Held: (Name office and organization)

---

---

---

II. Sci-Tech Members' Affiliation in other professional organizations, such as American Chemical Society or Union of Concerned Scientists.

---

---

---

Offices Held: (Name office and organization)

---

---

III. Your work setting; please check only one:

- Academic Library
- Consultant/Broker
- Corporate Library/Information Center
- Faculty
- Government Agency Library/Information Center
- Museum
- Nonprofit Institute/Organization
- Public Library
- Publisher
- Vendor
- Other (specify) \_\_\_\_\_

**Thank you!**

Please return form to:

**Fred Stoss**

Sci-Tech Division Networking Committee Chair  
Carbon Dioxide Information Analysis Center (MS-6335)  
Oak Ridge National Laboratory  
Oak Ridge, TN 37831-6335

Feel free to contact me at:

(615)574-0390; FTS:624-0390;  
or FAX (615)574-2232;  
FTS:624-2232

**PLEASE POSTMARK ON OR BEFORE APRIL 15, 1991**

---

**MASTERMINDING TOMORROW'S INFORMATION . . .**  
**Creative Strategies for the '90s**

**Special Libraries Association**  
**82nd Annual Conference**  
**San Antonio, Texas**  
**June 8-13, 1991**

Sci-Tech Division  
New Members  
June-October, 1990

Richard L Alford Jr  
176 Hamilton Rd  
Chapel Hill NC 27514

Patricia K Anderson  
Hewlett-Packard Co Libr  
6877 Goreway Dr  
Mississauga Ont L4V 1M8 CANADA

Karen L Andrews  
10689 Esterina Way  
Culver City CA 90230

Patricia A Antrim  
1113 Union  
Emporia KS 66801

Mary K Bales  
712 Barclay Dr  
Knoxville TN 37920

Marilyn Brda  
2006 W Farragut, 1st Fl  
Chicago IL 60625

Stephen J Bromberg  
4106 Ave C  
Austin TX 78751

Ricki-Ellen Brooke  
2742 Blackburn Dr  
Davis CA 95616

Lenore Bushlin  
103 Verona Rd  
Broomall PA 19008

Vivian Carlson  
899-82 Merritt Dr  
Somerville NJ 08876

Sal Casillo  
1313 Eleanor  
Toledo OH 43612

Katharine E Clark  
800A Navarro College  
Station TX 77845

Elaine Clement  
720 Toftrees Ave #211  
State College PA 16803

Robert E Crabill  
2435-A 23 Ave  
San Francisco CA 94116

Carol S Crawford  
10700 Academy Rd NE  
Albuquerque NM 87111

Eugene P Danilenko  
8213 SW 72 Ave #369  
Miami FL 33143

Susan J Daves  
260 N Mathilda Ave #V-8  
Sunnyvale CA 94086

Jan Davidson  
Kraft Food Ingredient Corp  
Tech Info Ctr  
8000 Horizon Blvd  
Memphis TN 38133

Mary Grace A Desiderio  
Natl Environmental Tech Applic  
Corp-UP/Applied Res Ctr  
615 William Pitt Way  
Pittsburgh PA 15238

Alexandra Dimitroff  
Univ of Wisconsin-Milwaukee  
Sch of Libr & Info Sci  
Enderis Hall  
PO Box 413  
Milwaukee WI 53201

Judith A Dimmick  
Neoprobe Corp  
855 W Fifth Ave  
Columbus OH 43212

Janice L Dodd  
31 Riverside Dr  
Banford CT 06405

Patricia G Duffel  
748 Keswick Dr  
Iowa City IA 52246

David C. Duggar  
8001 Jefferson Way, Hwy 100  
Baton Rouge LA 70809

Nancy A Elg  
Micron Technology Inc Libr  
2805 E. Columbia Rd  
Boise ID 83706

Jill R Elliott  
E J Gallo Winery Libr  
PO Box 1130  
Modesto CA 95353

Kathryn D Ellis  
129 Mallard Ct  
Chapel Hill NC 27514

Brenda M Fantin  
8 Hillside Ct  
Coniston Ont POM 1M0 CANADA

Karen R Feridun  
RD #4 Box 431  
Kutztown PA 19530

Stephanie A Fish  
Geo-Centers Inc Libr  
7 Wells Ave  
Newton Centre MA 02159

Patricia A Flugger  
Morgan & Finnegan Libr  
345 Park Ave  
New York NY 10154

Russell I Fries  
Institute for Defense Analyses  
Tech Info Svcs  
1801 N Beauregard St  
Alexandria VA 22311

Roxanna Frost  
12605 NE 94 Way  
Kirkland WA 98033

Rhonda A Fuhrmann  
1070 Mearns Meadow #412  
Austin TX 78758

Eva Giercuskiewicz  
6125 Bardu Ave  
Springfield VA 22152

Juanita D Gilmore  
2013 Apex Rd  
Durham NC 27707

Charlotte L Glover  
3801 Brooklyn Ave NE B1165  
Seattle WA 98105

Anat H Graw  
6336 Woodway  
La Plano TX 75093

Patricia M Griffin  
PO Box 7622  
Tifton GA 31793

Terry F Hampton  
Exxon Chemical Co  
Bayton Polymers Ctr Info Svcs  
PO Box 4200  
5200 Bayway Dr.  
Baytown TX 77520

Pamela A Hanners  
3362-A Lake Austin Blvd  
Austin TX 78703

Patricia A Haskins  
IBM Corp Libr - Maildrop 0127  
Rte 17C  
Owego NY 13827

Kate S Herzog  
State Univ New York-Buffalo  
Sci Engg Libr  
223A Capen Hall  
Buffalo NY 14260

Carol Hoffman  
221 Palmer Ave Apt 2H  
New Rochelle NY 10801

Melanie J Holles  
1201 Triplett Dr B-13  
Emporia KS 66801

Diane E Hudson  
11580 Perkins Rd #68  
Baton Rouge LA 70810

Dolores P Huth  
4743 Merwin  
Houston TX 77027

Katherine S Jarvis  
1275 Martin Ave  
Palo Alto CA 94301

Gerard J Jendras  
2040 Charlton Ave #2  
Ann Arbor MI 48103

Arlene M Johnson  
Ingersoll Engineers  
1021 N Mulford Rd  
Rockford IL 61111

Lorrie A Johnson  
Rte 3 Box 260-A  
Lenoir City TN 37771

Donna L Kauffman  
4770 Washtenaw #A3  
Ann Arbor MI 48108

Elizabeth Y Keith  
12 Sylvan Train  
Kinnelon NJ 07405

Beverly T Kerr  
CoWorks  
PO Box 5840  
Kansas City MO 6411

Hannah M King  
18516 Bayleaf Way  
Germantown MD 28874

Natalie S King  
2439 Lake in the Woods #727  
Ypsilanti MI 48198

Carolyn H Kirdahy  
Museum of Science Libr  
Science Pk  
Boston MA 02114

Beverly A Klassen  
Hutchinson Technology Inc  
MS 765 40 W. Highland Park  
Hutchinson MN 55350

Eileen M Knabe  
2408 W Seventh ST  
Austin TX 78703

Patricia J Knobloch  
2279 St Francis Dr  
Palo Alto CA 94303

Paul L Kopczynski  
543 S 71 St  
Milwaukee WI 53214

Carol A Krueger  
219 E Ninth St  
Ames IA 50010

Rosanne Labree  
McLean Hospital  
Mental Health Sci Libr  
115 Mill St  
Belmont MA 02178

Jeanne T LaRocco  
125-5 Ashley Cir  
Athens GA 30605

Susan M Lass  
200 S Revena  
Ann Arbor MI 48103

Anne L Leather  
7138 Westbrook La  
Dallas TX 75214

Allison K Lim  
406 Beluit  
Kensington CA 94708

Louise Macuirles  
41A Greensboro Blvd  
Clifton Park NY 12065

Kevin P Mahony  
Mason & Hanger-Silas Mason Co  
PO Box 30020  
Amarillo TX 79177

Tracy Mason  
Dresser Industries Inc  
Dresser Pump Div/Info Ctr  
401 Worthington Ave  
Harrison NJ 07029

John C Matylonek  
Drexel Univ Hagerty Libr  
32 & Chestnut Sts  
Philadelphia PA 19104

Debra J McCurry  
9911 Capitol View Ave  
Silver Spring MD 20910

Marita E McDonough  
9 Humbolt St  
Cambridge MA 02140

Michael F McElwain  
7308 Whispering Winds  
Austin TX 78745

Catherine F Menzie  
16 N Hill Rd  
Westford MA 01886

Eileen C Moyer  
67 Hillron St  
Hyde Park MA 02136

Ina Sue Nairn  
369 St Clair  
Grosse Pointe MI 48230

Deborah K Oberlander  
2810 Coventry Dr.  
Parma OH 44134

Jennie L Oleksak  
Honeywell Inc IACD  
Info Ctr 1W10  
16404 N Black Canyon Hwy  
Phoenix AZ 85023

Arden R Olson  
PO Box 599  
Bloomsbury NJ 08804

John G Owen  
Advanced Micro Devices Inc  
Tech Libr MS-169  
901 Thompson Pl/PO BOX 3453  
Sunnyvale CA 94088

Lynn D Palin  
Loctite Corp Automotive Group  
1 R&D 18731 Cranwood Pkwy  
Cleveland OH 44128

Pamela C Pangburn  
Natl Research Council NRC Libr  
2102 Constitution Ave NW  
Washington DC 20418

Amy L Paster  
Pennsylvania State Univ  
Pattee Libr E205  
University Park PA 16802

Jane E Paulson  
7 Myrna Rd  
Lexington MA 02173

Hilary M Perrott  
Natl Museum Science & Technol Libr  
PO Box 9724 Ottawa Terminal  
Ottawa Ont K1B 5J2 CANADA

Daniel F Phelan  
1240 Marlborough Ct Apt 605  
Oakville ONT CANADA L6H 3K7

Pamela Pifer  
Kulicke & Soffa Industries Inc  
Corporate Communications  
2101 Blair Mill Rd  
Willow Grove PA 19090

Terry L Praznik  
7929 Shining Willow La #362  
Dallas TX 75230

John F Price  
US Library of Congress  
Sci Tech Div  
Washington DC 20540

Michael T Reade  
28776 Marshall St  
Southfield MI 48076

Barbara A Reismann  
Arthur D Little Inc  
15 Acorn Park 20-330  
Cambridge MA 02140

Margarette J Roberts  
527 Grand Ave  
Hackettstown NJ 07840

Ann Romeril  
72 Brook #1  
Ayimer PQ J9H 2Y6 CANADA

Laura L Rosenstock  
120 Boerum Pl #1F  
Brooklyn NY 11201

Stephen T Sadler  
6315 SR 136  
Brownsburg IN 46112

Harriet E Schnoor  
Univ of Chicago  
John Crerar Libr  
5730 S. Ellis  
Chicago IL 60637

Betsy J Schwartz  
Brookhaven Natl Lab Res Libr  
Upton NY 11973

Lora L Seaboldt  
47511 Hickory Apt 26302  
Wixom MI 48096

Linda Jean Senkus  
128 Putnam St  
Bristol CT 06010

Laurie A Smith  
Systemhouse Inc Libr  
55 York St 7 Fl  
Toronto ON CANADA M5J 1R7

Bill Sneddon  
Florida Business Systems  
PO Box 15365  
5828 Johns Rd  
Tampa FL 33684

Vicky Spitalniak  
3 Ivy Ct  
Brookfield CT 06804

Joanne T Stanga  
Magna Intl Inc Libr  
36 Apple Creek Blvd  
Markham Ont CANADA L3R 4Y4

Marilyn Stark  
2357 S Allison Way  
Lakewood CO 80227

Jennifer R Stencil  
180 Gay St  
Williamsburg OH 45176

Paula M Storm  
1408 McKinley  
Plymouth MI 48170

Kathleen Sweeney  
Sweeney & Assoc  
PO Box 1546  
Ellicott City MD 21043

Andrea R Testi  
PO Box 1381  
Tijeras NM 87059



Jennifer K Unruh  
1201 Triplett #F72  
Emporia KS 66801  
Edward J Valauskas  
Merrian Ctr for Public Admin Library  
1313 E 60th St  
Chicago IL 60637

Edward Vladas  
Santa Clara Univ Michel Orradre Libr  
The Alameda  
Santa Clara CA 95053

Elizabeth A Wallach  
5930 Ninth St  
N Arlington VA 22205

Ann E Ward  
19411 Old Ranch Rd  
Yorba Linda CA 92686

Pamela J White  
4350 Victoria Park Dr  
Los Angeles CA 90019

Karlynn Wilburne  
11738 Kathaerine  
Taylor MI 48180

Jan E Williams  
Monsanto Co Info Ctr  
PO Box 7090  
St Louis MO 63177

Dana M Witten  
2439 N Graham  
Arlington TX 76013

Cathy J Womack  
Natl Aquarium in Baltimore Library  
Pier 3  
501 E Pratt St  
Baltimore MD 21202

Mary L Wood  
Intercollegiate Ctr Nursing Educ  
Betty Anderson Libr  
W2917 FT George Wright Dr  
Spokane WA 99204

SLA's 1991 Regional Continuing  
Education Program

### Mainstreaming the Special Library

Learn how libraries and information centers  
become vital to their organizations and to the  
people they serve.

|                    |                |
|--------------------|----------------|
| <b>Kansas City</b> | <b>March 8</b> |
| <b>Minneapolis</b> | <b>May 10</b>  |
| <b>Vancouver</b>   | <b>May 17</b>  |
| <b>Ann Arbor</b>   | <b>Oct. 25</b> |
| <b>New York</b>    | <b>Nov. 1</b>  |
| <b>Pittsburgh</b>  | <b>Nov. 8</b>  |

For further information contact SLA's Professional  
Development Section, 202/234-4700.

SLA's 1991 Regional Continuing  
Education Program

### Management of Information Technologies

With today's technological advances, the key to  
success in the information profession is har-  
nessing innovations to better meet user demands.

|                      |                 |
|----------------------|-----------------|
| <b>Portland</b>      | <b>March 22</b> |
| <b>Knoxville</b>     | <b>April 19</b> |
| <b>Toronto</b>       | <b>April 26</b> |
| <b>Los Angeles</b>   | <b>Sept. 27</b> |
| <b>San Francisco</b> | <b>Oct. 11</b>  |
| <b>Baltimore</b>     | <b>Nov. 15</b>  |

For further information contact SLA's Professional  
Development Section, 202/234-4700.

# New Science & Technology Journals

G. LYNN TINSLEY, EDITOR  
LYNN TINSLEY, EDITOR

***Applied Magnetic Resonance.*** ISSN:0937-9347. Springer-Verlag New York Inc., 175 Fifth Ave., New York, NY 10010. US\$191. Editor: K.M. Salikhov. US\$297. Vol. 1, 1991.

Provides an international forum for the application of magnetic resonance in physics, chemistry, biology, medicine, geochemistry, ecology, engineering, and related fields.

***Computational Complexity.*** ISSN:1016-3328. Birkhauser Boston c/o Springer-Verlag New York, Inc., P.O.Box 2485, Secaucus, NJ 07096-9812. Managing Editor: J. von zur Gathen. US\$198/year. Vol. 1, 1991 (four volumes).

This journal presents outstanding research in computational complexity. Its subject is at the interface between mathematics and theoretical computer science, yet with a clear mathematical profile and strictly mathematical format.

***Computational Polymer Science.*** ISSN:tba. Polymer Research Associates, Inc., PRA Press, 9200 Montgomery Road, Suite 23B, Cincinnati, OH 45242. Editor: James E. Mark. US\$190 (institution). Vol. 1, 1991.

The primary aim of the journal is the publication of high-quality manuscripts dealing with computations on polymeric systems, one of the most rapidly growing areas of polymer science. Its coverage is multidisciplinary, involving chemists, physicists, biologists, chemi-

cal engineers, and material scientists among others, with impact in academia, industry, and government laboratories.

***International Journal of Human Factors in Manufacturing.*** ISSN:0145-2699. John Wiley, 605 Third Ave., New York, NY 10158. Editors: Waldemar Karwowski and Gavriel Salvendy. US\$125. Vol. 1, 1991.

Provides a forum for the dissemination of scientific work on the human aspects of advanced manufacturing technologies. The journal focuses on the design, management, and operation of advanced manufacturing systems. It addresses five main areas of concentration: Human resource management, social, and organizational issues, cognitive engineering, human factors, and safety and health.

***International Journal of Systems Automation: Research & Automation (SARA).*** International Society for Productivity Enhancement (ISPE), Box 731, Bloomfield Hills, MI 48303-0731. Editor-in-Chief: Biren Prasad. Four times a year. Vol. 1, #1, 1990.

*SARA* is a new international, multidisciplinary research and applications-oriented journal designed to promote a better understanding of systems consideration in interdisciplinary automation. The journal will cover all aspects of the systems automation and integration side of computer technologies. Seven

areas of concentration will be covered: creative engineering, design, prototyping, database management, artificial intelligence, and robotics and integrated manufacturing.

***International Video Journal of Engineering Research.*** ISSN:tba. John Wiley, 605 Third Ave., New York, NY 10158. Editor: Vaughan Voller. US\$270. Vol. 1, 1991.

The central theme of the journal will be modelling and analysis of engineering systems. Both the experimental and computational analysis of engineering systems have reached a high level of sophistication. The objective of this journal is to provide a forum, based on a video medium, in which video results can be presented to the engineering community at large.

***Journal of Electronic Testing: Theory and Applications (JETTA)*** ISSN: 0923-8174. Kluwer Academic Publishers, P.O. Box 358-Accord Station, Hingham, MA 02018-0358. Editor-in-chief: Vishwani Agrawal. US\$158 (institutions). Vol. 1, #2, May 1990.

This journal serves as an international forum for the dissemination of research and application information in the area of electronic testing. This journal is currently the only research journal devoted exclusively to electronic testing.

***Journal of Flight Sciences and Space Research (ZFW)/Zeitschrift für Flugwissenschaften und Weltraumforschung.*** ISSN: 0342-068X. Springer-Verlag New York Inc., 175 Fifth Ave., New York, NY 10010. Edited by Deutsche Gesellschaft für Luft und Raumfahrt (DGLR). US\$136.50. Vol. 1, 1991.

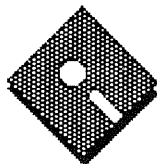
Publishes original papers and review articles from all areas of aerospace research

and technology, as well as from associated fields of interest. Traditionally the main topics of ZFW are: flight mechanics, flight guidance, trajectory and attitude control, fluid dynamics, and mechanics and applications of aerospace technology.

***Multidimensional Systems and Signal Processing: an International Journal.*** ISSN: 0923-6082. Kluwer Academic Publishers, P.O. Box 358-Accord Station, Hingham, MA 02018-0358. Editor-in-Chief: Nirmal K. Bose. Vol. 1, #1, March 1990.

***Shock Waves: An International Journal.*** ISSN: 0938-1287. Springer-Verlag New York, Inc., 175 Fifth Ave., New York, NY 10010. US\$191. Editor-in-Chief: I.I. Glass. Vol. 1, 1991.

Aimed at publishing theoretical and experimental results on shock-wave phenomena in gases, liquids, and two-phase media from both the fundamental research and the applications point of view. Each issue will be rounded off by news and meetings reports of interest to the shock-wave community.



SLA's Self-Study Program  
**"Time Management  
in the Small Library"**

This self-study program is available in both workbook and floppy disk formats.

For further information contact SLA's Professional Development Section, 202/234-4700.

## CONFERENCE LITERATURE

MARSHA SAYLOR, EDITOR

Hello! As a Librarian who has learned the importance of Conference Proceedings the hard way (I am seldom able to locate a requested conference in anything approaching "real" time), I am hoping this column will help keep you up-to-date about a few of the many conferences of interest to *Sci-Tech News* readers. As there are thousands of conferences held yearly (IEEE alone sponsors or co-sponsors almost 400 major conferences a year), I would appreciate any assistance you can give me by notifying me of pertinent published conference proceedings. I also welcome conference reports from attendees. Any summary should be limited to recent conferences, no more than 300 words, and double-space typed. For more information, contact Marsha Saylor at (512) 242-4231, or write me at Hoechst Celanese, Research Division, 1901 Clarkwood Road, P.O. Box 9077, Corpus Christi, TX 78467-9077.

### CONFERENCE SUMMARIES

#### Military Communications

*MILCOM 90: A new era: 1990 IEEE Military Communications Conference*; 1990 September 30-October 3; Monterey, CA. Status of published proceedings: Piscataway, NJ:IEEE Service Center; 1990. (Note: Mr. Thomas A. Goncharoff, Finance Chair, has made an offer to all interested Libraries. For the cost of shipping, he will send one complete set of the

three-column digest upon request while copies are available. Mr. Goncharoff may be reached at Lockheed Missiles & Space Company, Inc., 0/62-42, B/076, P. O. Box 3504, Sunnyvale, CA 94088-3504, FAX (408) 742-2505 or telephone (408) 756-5630.)

This international conference (supported or sponsored by IEEE, AFCEA, and DOD) resulted in a three-volume digest that includes all papers presented at the unclassified sessions. Papers were solicited based on the theme of the conference, A New Era, and reflects future technologies in the area of military communications.

Some of the broad areas of communication covered include Networks, Signal Processing, Integrated Circuits, Satellite & Microwave Systems, Mobile Communication, Modulation & Coding, Defense and MILSSAT-COM Technologies, Antenna & Other Communications Systems, Spread Spectrum Communications, Modulation and Communication Theory.

The index lists Conference Tutorials with the presenter and title of Classified Sessions with panel members although neither is printed in the Digest.

#### CAD/CAM

*CAD/CAM, Robotics, & Factories of the Future: 5th International Conference on CAD/CAM, Robotics & Factories of the Future (CARS*

& FOF '90); 1990 December 2-5; Norfolk, VA. Status of published proceedings: New York: Springer-Verlag; in publication.

224 research papers, 48 technical sessions, and 8 workshops were presented at this conference sponsored by Old Dominion University. The major themes at the conference were Robotics, CAD/CAM, Management, Information Technology, Analytical Modeling, Automated Assembly, and a National Teleconference sponsored by Northrop on the Paperless Airplane.

In the field of Robotics, the topics covered were Trajectory Planning, Kinematics, Robot Operations, Advances in Applied Robotics, Flexible Manipulators, Applications, Workspace Design, Multivalued Coding, System Techniques, Sensors, and Articulated Robots.

The sessions on CAD/CAM included Concurrent Engineering, Applications, Use in Underground Structure, Group Technology, Process Planning, Machine Tools, Parametric Models and Materials, and Flexible Manufacturing Systems. Production Planning and Scheduling, Manufacturing Enterprises, Cost Aspects, Factory of the Future, Manufacturing Education, and Quality were the Management areas addressed.

Information Technology covered the subjects of Knowledge-Based Systems, Computer Simulation, AI in Design and Manufacturing, CAD/CAM/CIR Data Interchange, Neural Networks, and Computer Support for CIM.

The Analytical Modeling section was devoted to Finite Element Applications, Geometric Models, Analytical Models, and Finite Element Analysis and Modeling.

The single session devoted to Automated Assembly contained papers devoted to Angu-

lar Errors, Contact and Geometry of Features, Real-Time Simulation Control, and Quality Consideration.

### Online

*Online/CD-ROM '90 Conference Proceedings*; November 5-7, 1990; Washington, DC. Weston, CT: Online; 1990.

The ONLINE/CD-ROM Conference was held in Washington on November 5-7, 1990. As the title of the conference indicates, CD-ROMs played a major role, both in exhibits as well as papers. In the opening Peggy Fischer pointed out that there are now some 6600 databases available to the public, of which around 40% are now in CD-ROM format. There are 850 to 1000 database vendors in 38 countries. It is interesting for sci-tech librarians to note that the outstanding database product of the year was the Beilstein Online file.

There were many pre- and post-conference training sessions, of which a large percentage concerned CD-ROMs—such as how to publish your own, how to install your own, and how to manage the use of a CD-ROM. The role of CD-ROMS in LANs was another popular topic.

For the second time the conference included a separate program entitled Data Bases in Schools, aimed at database educators. Many school librarians were in evidence.

The 173-page conference proceedings volume is available from ONLINE magazine. It contains a variety of papers, ranging from use of CD-ROMS to updating of commercial databases to techniques of online instruction.

Ellis Mount  
Columbia University

## PUBLISHED PROCEEDINGS

### Earth Sciences

*Earth's rotation from eons to days.* Edited by Professor Dr. Peter Brosche and Professor Dr. Jurgen Sundermann. New York: Springer-Verlag; 1990. 255p. ISBN 3-540-52409-6.

The proceedings of a workshop entitled Tidal Friction and Earth's Rotation are presented. The Workshop was held from September 26-30, 1988, at the Center for Interdisciplinary Studies of the University of Bielefeld, Germany. Twenty-three sections by thirty-two authors examine the changes in the rotation of the earth as influenced by various factors such as celestial mechanics, solid earth effects, atmospheric impacts, and tectonic consequences. The measurement of earth's rotation by Very Long Baseline Interferometry is identified as the observational technique which can most accurately determine the polar motion and nutation of the earth. Many tables and mathematical models are used to support the written text. The intellectual level of the material requires considerable background in geodesy, tectonics, and celestial mechanics for adequate reader comprehension.

Philip N. French  
NASA STI Facility  
RMS Associates

### Library and Information Science

*Commitment to service: the library's mission.* Edited by Alphonse F. Trezza. Boston: G. K. Hall; 1990. 149p. \$22.50.

The papers included in this book were presented at the 1989 Florida State University Library Conference, held March 12-15, 1989. The keynote of the conference was service to

users in a market-driven environment. Written by practicing librarians from a variety of types of libraries, these twelve readable papers are relevant to librarians and library managers in all fields of librarianship who are interested in providing excellent customer service. The papers provide a review of the issues over a range of library activities: reference services for today and tomorrow; resource sharing and collection development; serving our varied clientele; impact of a new major facility on library services; and impact of technology on staffing.

Carolyn Sidey  
Xerox Research Centre of Canada

### Materials Science

*Cold fusion. Conference held by the Materials Research Society at San Diego, CA on April 26, 1989.* Pittsburgh, PA: Materials Research Society; 1989. 2 v. VMS, \$200.00

Two video tapes of the historic Materials Research Society conference present the theories, techniques, and results of several researchers. Each speaker's presentation is followed by discussions with members of the audience. The intellectual level of the presentation requires strict listener concentration.

Philip N. French  
NASA STI Facility  
RMS Associates

### *Composite materials design and analysis.*

Edited by W. P. de Wilde and W. R. Blain. Southhampton, Boston: Computational Mechanics Publications; 1990. ISBN 0-945824-45-9.

In the United States, we rarely look outside our own backyard when it comes to advances in composite materials technology. However, this book documents the papers presented at

the Second International Conference on Computer Aided Design in Composite Materials Technology, which was held in Brussels, Belgium. Since most of the papers are from Europe, it gives a good representation of the advances taking place there. The papers also deal with the entire range of composites research and development. There are papers that deal with an almost entirely experimental approach, some that are purely analytical and others that offer a mixture. The book assumes a working knowledge of composite theory, terminology and structures in general. Among the topics covered are a variety of finite element modelling techniques, optimization methods, joint analysis, and 3-D buckling. The book would most benefit those trying to keep abreast of new developments in the composites field, and offers such a variety of topics, that there is something of interest for everyone here.

Hristo Atanasoff  
Dept. Aerospace Engineering  
University of Maryland

*Materials Research Society: Proceedings of the MRS International Meeting on Advanced Materials*, Vol. 7, Superplasticity. Edited by Masao Doyama, Shigeyuke Sumiya and Robert P. H. Cbang. Materials Research Society, 9800 McKnight Road, Pittsburgh, PA. 1989. 317p. \$52.00. ISBN 1-55899-035-4.

The reference guide on Superplasticity is the seventh volume of a fourteen-volume set on the proceedings of the First Materials Research Society International Meeting on Advanced Materials. This volume is a compilation of thirty-four research publications that focus on superplasticity in advanced materials including metals, intermetallic compounds, composites, and ceramics. Each document

includes an abstract, an introduction of content, charts, graphs, formulas, illustrations and a list of references. The volume is broken down into two parts, part one entitled "Superplasticity of Metals and Alloys," and part two entitled "Superplasticity of Advanced Ceramics." The content of the book is well developed with clear and concise terminology and also has the benefits of excellent illustrations and graphs. The index includes authors and subjects, and there is also bibliographic information on the other thirteen volumes.

This is a very detailed and structured reference guide that will serve as a basis and a supplement for any scientist that is involved in the field of superplasticity. It would be a valuable addition to any research library or facility.

Jonathan W. Grant  
NASA STI Facility  
RMS Associates

#### Nuclear Physics

*Design and instrumentation of in situ experiments in underground laboratories for radioactive waste disposal*. Edited by B. Come. Boston: A. A. Balkema; 1985. 474 p. \$60.50.

This compilation of the proceedings of an international conference provides a reasonable international overview, circa 1984, of in situ radioactive waste experiments and associated instruments for geologic disposal of high level and transuranic waste. About half the papers are in French and the rest are in English. Abstracts in both languages are provided for most of the papers. All of the discussion summaries and session overviews are presented in English. Although the papers vary in level of detail and quality, few are highly technical. Sufficient detail is provided to describe the concepts, so the information provided can be useful to a wide range of

individuals working in the field of geologic disposal of radioactive waste. Generally, the design information is not sufficient for development of instruments, but does provide guidance on past or present efforts in some areas that merit further inquiry and scrutiny.

Danny Smith  
Rockville Division  
SCIENTECH, Inc.

### Physics

*Whither turbulence? Turbulence at the crossroads.* Edited by J. L. Lumley. New York: Springer-Verlag; 1990. 535p. \$60.00. ISBN 3-540-52534-1.

This is contribution number 357 of the Lecture Notes in Physics series. It presents papers and transcripts of discussions from a workshop on turbulence held at Cornell University in 1989. An international group of scientists gathered to address some topics that are "the subject of controversy in the literature," i.e., traditional approaches, the role of organized motion, dynamical systems approach, large eddy simulations, cellular automata, and phenomenological modeling. The authors provide scholarly articles and each section concludes with candid comments from the participants. Researchers, representatives of funding agencies, and students of turbulence can benefit from this broad and timely review—this is not just another turbulence textbook.

Larry Bliven  
NASA Wallops Flight Facility

### AEROSPACE





# BOOK REVIEWS

## BOOK REVIEWS

RON BUCHAN, EDITOR

*The air and space catalog, the complete sourcebook to everything in the universe.* Edited by Joel Markower and Marilyn P. Fenichel, Washington, DC: Tilden Press; 1989. 332p. \$16.95. ISBN 0-679-72038-3.

Using the four major subjects of astronomy, weather, aviation, and space flight, the editors have compiled an extensive listing of the names, addresses, and telephone numbers of government and private organizations which provide information on these subjects. Specific data include the titles of societies and membership dues, periodicals and their prices, availability of catalogs, locations of museums and their areas of interest, and dates and locations of meetings and events. Many concise essays provide historical and bibliographic information as well as instructions for personal participation. Liberal use is made of photographs to enhance the written material. Because of its completeness, the sourcebook will be of interest to all ages and levels of understanding.

Philip N. French  
NASA STI Facility  
RMS Associates

*A guide to remote sensing, interpreting images of earth.* By S. A. Drury. New York: Oxford University Press; 1990. 199 p. ISBN 0-19-854495-2.

The development of techniques for remote sensing of the Earth, with emphasis on NASA's LANDSAT project, is discussed to

show the nature of the information which may be obtained. Five chapters cover subjects such as the problems associated with resource distribution, methods for obtaining resources information, interpretation of the information, and specific applications. A concluding chapter deals with operational issues, benefits and costs, training, data distribution, and future prospects. Many black and white and color photographs provide excellent examples of the images acquired by remote sensing with special attention given to the false-color techniques for image enhancement. One appendix lists sources of remote sensing images and another recommends publications for additional reading. A glossary defines the terms which are specific to remote sensing and also gives the meaning of many acronyms.

Philip N. French  
NASA STI Facility  
RMS Associates

*Interavia space directory 1990-91* (Previously Jane's spacecraft directory). Edited by Andrew Wilson. Alexandria, VA: Jane's Information Group, Inc.; 1990. 566p. \$170.00. ISBN 0-7106-0646-X.

The increased international participation in space exploration and related activities provide the input for this highly detailed presentation. The book opens with a chronology of space logs from 1987 to 1990 with brief description of each accomplishment. Tables of data present satellite launches, U.S. manned

flights, 1961-1975, U.S. Space Shuttle flights, 1981-1990, personal data on astronauts, solar system exploration, and geostationary satellite situation. Extensive coverage is provided concerning national space programs, international space programs, spacecraft launch vehicles, and the use of artificial satellites for communication, navigation, search/rescue, and earth observation. The latest developments in microgravity research are examined. The location, function, and facilities of world space centers are identified with support in the form of photographs and maps. A discussion of the missions and accomplishments toward planetary exploration shows the degree of interest in this subject. The book concludes with a look at prominent space industries and their products. The organization of the book, the thoroughness of the presentations, and the photographic coverage provide an authoritative reference for the most discriminating reader.

Philip N. French  
NASA STI Facility  
RMS Associates

*Jane's all the world's aircraft 1990-91, 81st edition.* Edited by Mark Lambert. Alexandria, VA: Jane's Information Group, Inc; 1990. 807 p. \$185.00. ISBN 0-7106-0908-6.

Jane's publications are recognized as the standard by which other presentations of information on military and civilian aircraft are judged, and the present volume is an excellent example. A foreword provides a comprehensive account of world-wide aviation activities during 1989 and 1990, and a glossary defines the terms and acronyms which are used. All nations with aircraft production capability are listed alphabetically with each manufacturer and their products identified by a paragraph on production history, photographs, three-

view drawings, and tables of specifications. In cases where the aircraft is still under design, pictures of a model or an artist's concept are used. A section on international cooperation describes the developments which are funded jointly by two or more nations. Another section shows the aircraft which had first flights in 1989 and 1990 and the significant milestones of 1990. Information is also provided on hang gliders, microlights, lighter-than-air vehicles, and sailplanes. The book concludes with detailed data on reciprocating, turbine, and rocket engines and their application. The timeliness of the publication is evident from an addenda which discusses aircraft which just made the publication deadline.

Philip N. French  
NASA STI Facility  
RMS Associates

*Legends of the air: aircraft, pilots, and planemakers from the museum of flight.* By Sean Rossiter. Seattle, WA: Sasquatch Press; 1990. 167 p. \$35.00. ISBN 0-912365-29-3.

The imminent destruction of the last Boeing Model 80A aircraft in 1960 caused a group of concerned citizens in Seattle, Washington, to save and restore the aircraft. From this beginning was created the Museum of Flight, located at Boeing Field in Seattle. As of 1987, the museum held 155,000 historical artifacts, including 70 complete aircraft. The author presents 23 of the aircraft from the collection to show the history, technology, specifications, and performance of each with personal accounts of the builders, owners, and operators. The space age is represented by Apollo Spacecraft, Command Module 007, which was used as a training device for astronauts at the Johnson Space Center. Appropriate and generous photographs combine with

the text to produce excellent coverage of each subject. Generations to come will appreciate and learn from the history contained in the Museum of Flight.

Philip N. French  
NASA STI Facility  
RMS Associates

*McDonnell Douglas aircraft since 1920: Vol. 2.* By Rene J. Francillon. Annapolis, MD: Naval Institute Press; 1990. 416p. \$44.95. ISBN 1-55750-550-0.

The origins of the McDonnell Company are discussed to show their early accomplishments and their association with other aircraft companies, culminating in the merger with the Douglas Company in 1967 to create the present organization.

The history of the Hughes Aircraft Company, the accomplishments of Howard Hughes, and the merger with McDonnell Douglas in 1984 are well documented. Detailed information is provided on specific aircraft produced, beginning with the Doodlebug in 1927 to the F-18 in 1974, with emphasis on the contributions to national defense provided by the FH-1, the F-4, and the AV-8 aircraft.

Commercial aircraft production is represented by the various versions of the DC-8, DC-9, and DC-10 transports. The versatility of the company is demonstrated by the development of many helicopters and experimental vehicles. The success of the American space program was largely dependent on McDonnell Douglas participation in the Mercury, Gemini, and Skylab projects.

The written material is supported by an excellent selection of photographs and drawings. The tabulation of production details and serial numbers should satisfy the most avid

aviation historian.

Philip N. French  
NASA STI Facility  
RMS Associates

*Round-the-world flights.* Second ed. By Carroll V. Glines. Blue Ridge Summit, PA: TAB Books; 1990. 276p. \$17.95. ISBN 0-8306-3393-6.

The goal to be the first to circle the globe by air was accomplished by U.S. Air Corps personnel in 1924 using Douglas World Cruiser aircraft. The flight required 175 days with 371 hours of flying time and is a tribute to the determination and ingenuity of the fliers involved. In twenty-seven chapters, the author discusses the flights of well-known and lesser-known aviators, military and civilian, male and female, and the vehicles which they operated. A chapter is devoted to the non-stop, unrefueled flight of the Voyager, which represents the ultimate round-the-world flight. Another chapter presents the details of the circumnavigation by two persons in a helicopter in 1982, followed by a solo helicopter flight in the same year. Although the ninety-minute transits of spacecraft have changed the significance of globe circling, the first round-the-world flight in a free balloon is being seriously considered. It is interesting to note that the majority of the people who made successful circumnavigations would not willingly repeat the experience.

Philip N. French  
NASA STI Facility  
RMS Associates

*The space station decision, incremental politics and technological choice.* By Howard E. McCurdy. Baltimore, MD: The Johns Hopkins University Press; 1990. 286p. \$34.95.

ISBN 0-8018-4004-X.

The efforts of NASA to create a permanent United States presence in space through the development of the space shuttle and space station technologies are discussed. A chronological account is provided of NASA's accomplishments in developing study groups, configuration recommendations, interagency cooperation, international participation, and effective management procedures. The influence of government officials, public apathy, and the strenuous attempts to obtain a supportable space policy are examined in detail against a background of the organizations and individuals involved. Statements concerning the rationale for a space station, its potential for improving life on earth, and its application as a base for interplanetary exploration should convince even the strongest opponents that the space station could be a vital element in our future.

Philip N. French  
NASA STI Facility  
RMS Associates

#### AGRICULTURE

*Soil erosion in the tropics: principles and management.* By Rattan Lal. New York: McGraw-Hill; 1990. 580p. \$89.95 hardbound. ISBN 0-07-036087-1.

Obviously on a subject of timely importance, the book utilizes 320 illustrations and long-term research from Asia, Australia, South America, and Africa to document problems and possible solutions. Each chapter ends with conclusions and several pages of references. Chapters include soil properties, erosion measurement and evaluation, land use, crop management, wind erosion, and use of trees. Various problems of soil condition and incor-

rect usage are covered as are beneficial tools and practices. Rattan Lal is a Professor of Soil Physics at Ohio State University, and has done a thorough job, covering even the damage done by rain, both in the open, and, surprisingly, dropping from the forest canopy. Equations abound: the linear relationship of momentum with rainfall intensity and amount, the stability index of soil, a regression equation relating splash down slope with slope angle, sediment yield related to the climatic coefficient, altitude, and slope, and an equation to estimate the rate of growth of a gully, among many others. One mistake, however: the water flow measuring device the Parshall flume is identified as the "partial flume." Subject and author indices are included.

Paul Purcell  
NASA STI Facility  
RMS Associates

#### BIOLOGY

*The cerebral symphony: seashore reflections on the structure of consciousness.* By William H. Calvin. New York: Bantam Books; 1990. 401p. \$10.95. ISBN 0-553-34994-5.

Against the background of Woods Hole, Massachusetts, the author discusses the behavioral choice in animals, how animals have improved their mental capabilities, and the principles involved in thought processes. The environmental impact on physical characteristics and cultural innovations on mental characteristics are discussed. Fifteen chapters cover subjects such as animal behavior, infant development, anatomical connections, the impact of Darwinian theories, and cerebral functions. Quotations from ancient and modern writers support the author's concepts, and many maps and diagrams are used to establish the validity of the wide-ranging discussions. The combi-

nation of scientific fact and philosophical observations results in a very entertaining and thought-provoking presentation.

Philip N. French  
NASA STI Facility  
RMS Associates

*Symbiosis; nature in partnership.* By Nicolette Perry. London: Blandford; 1990. Distributed by Sterling Publishing Co. 168p. \$12.95 paperback. (\$16.95 in Canada). ISBN 0-7137-2155-3.

The "symbiosis" of pictures and graphics text do an admirable job of covering a complex topic succinctly. The organization of the subject into the ten chapters, makes for a good arrangement of the topic that is enhanced by a brief but thorough index. The pictures and graphics are sharp and clear and readily instruct the reader about the nature of symbiosis. The wide varieties of symbiotic relationships are described from microorganisms to humans. The interdependence of life forms is made evident to the reader after reading the first three chapters on the coral reef, the milkers, and the cleaners. The vast extent of that interdependence becomes global in the final chapter on humans when the relationship between oxygen-producing trees (aided by the fungi in their roots) and the oxygen requirements of all animals seem precariously balanced.

Ronald L. Buchan  
NASA STI Facility  
RMS Associates

## BOTANY

*Forests: a naturalist's guide to trees & forest ecology.* By Laurence C. Walker. New York: John Wiley; 1990. 288p. \$12.95 paperback. ISBN 0-471-52108-6.

While the basics of this book are chapters about different trees, there is more to this "Forests" than the trees. Written by a man who obviously knows and truly cares about trees, this book is also a delightful read full of humor and clear observations. One major section is on needleleaf trees, with chapters on different pines, redwoods, spruce, fir, and juniper. The other section is on broadleaf trees, covering the chestnut, osage orange, willow, walnut, cottonwood, and various oaks. Chapters show the range of the tree, growing conditions, and basic identification, but that is not all. How the tree got its name, what importance a tree was to the early settlers and to the native Americans is also covered. Each chapter ends with simple projects for amateur naturalists, which is not surprising considering Walker was a Professor of Forestry and Dean of the University School of Forestry at Austin State University for 13 years. This book is more than chapters on individual trees, however. Accumulating across the span of chapters is a growing awareness of how the interaction of different kinds of trees over time affect the land and each other in subtle and long-term ways. My only complaint is that the chapters, and the book itself, are much too short. Considering that this book is an adaptation of Walker's *Trees*, that is probably to be expected. A bibliography, glossary, and index are included.

Paul Purcell  
NASA STI Facility  
RMS Associates

## COMMUNICATIONS

*Improving risk communication.* By National Research Council, Committees on Risk Perception and Communication. Washington, DC: National Academy Press; 1989. 332p. \$29.95. ISBN 0-309-03943-6.

In the face of the numerous and complicated hazards that confront people in today's world, any attempt to define them or improve upon the situation is fraught with all kinds of misconceptions and misunderstandings. To face this challenge, risk communication, which is defined as the exchange of information and opinion about the nature of risks, has become a highly important topic in both government and industry. The threat of AIDS and toxic hazards are examples of hazards, whose risks are familiar to us. In this volume, a panel of experts looks at the problems of why risk communication is so important, and how misconceptions can hamper communication efforts, and the panel makes suggestions of how to improve the communication process. This topic, when taken in its broader sense, also has implications for all levels of communication.

Robert J. Havlik  
University of Notre Dame

*Satellite communications: the first quarter century of service.* By David W. E. Rees. New York; Wiley; 1990. 329p. \$44.95. ISBN 0-471-62243-5.

The use of artificial satellites for providing world-wide communications and the organizations which developed this phase of the telecommunications industry are discussed. Following a chronological account of significant telecommunication events, the author provides detailed information on major satellite services, national satellites in operation, and future plans for additional satellites. Tables

are provided to show the types of coverage provided by the various systems with maps and diagrams to delineate the areas served and the types of equipment used. The current uses of satellites for cable television, cellular telephones, weather alerts, navigational positioning, air traffic control, and international commerce are only the beginning. The book concludes with a chapter on future expectations. Six appendices provide tables of technical data, and a glossary defines the terms and acronyms which are used in satellite communication.

Philip N. French  
NASA STI Facility  
RMS Associates

## COMPUTERS

*Automatic text processing: the transformation, analysis, and retrieval of information by computer.* By Gerard Salton. Reading, MA: Addison-Wesley; 1989. 530p. \$40.95. ISBN 0-201-12227-8.

This work offers students and practitioners a broad summary of text processing technology. Opening with a brief introduction to computer technology, the book continues with overviews of word processing, information retrieval, and text analysis. Clearly presented examples abound; readers will be pleasantly surprised at the expositions of font design, data compression, and encryption (including a discussion of public-key methods). Classical file access algorithms involving trees, hash tables, and bitmaps are covered and then developed in more advanced discussions of inversions, weighting, automatic indexing, vector and cluster models, Boolean and probabilistic retrieval, and fuzzy set applications. Text and language analysis are presented in terms of dictionaries, syntactic analysis, knowledge-based approaches, spelling and style

checking, and automatic abstracting. Specialized and mathematically oriented chapters are marked, but not differentiated, both in the table of contents and in the body of the work. The book's level of mathematical sophistication is easily met by undergraduates or professional practitioners. The scope of the subject matter delivered through this work has predictably limited the depth of treatment of many areas and has concomitantly delivered a most valuable overview.

G. Michael Van Ty Smith  
NASA STI Facility  
RMS Associates

*Computer ethics: cautionary tales and ethical dilemmas in computing.* By Tom Forester and Perry Morrison. Cambridge, MA: The MIT Press; 1990. 193p. \$19.95.

Addressed to both users and systems professionals, this work reviews the most visible areas of computer abuse; computer crime, software theft, hacking and viruses, unreliable computers, invasion of privacy, AI and expert systems, and workplace computerization. The work is well stocked with examples of crime, abuse, and error; many are drawn from Peter G. Neumann's *Risks to the Public*, a tabulation which regularly appears in the periodical *Software Engineering Notes* from ACM's Special Interest Group on Software Engineering. The book assembles many incidents, wraps them in a structural framework, and provides valuable context and analysis. Even a superficial reading of this work will convince many to take these issues seriously.

G. Michael Van Ty Smith  
NASA STI Facility  
RMS Associates

*More C tools for scientists and engineers.* By Louis Baker. New York: McGraw-Hill; 1990. 308p. \$29.95.

This is a follow-on to *C tools for scientists and engineers* (reviewed in *Sci-Tech News*, April 1990, page 36). Some chapters are direct extensions of the previous volume; they have less of a tutorial introduction than the chapters which contain new material. This volume expands the scope of the overall work tremendously; it covers sparse systems, block matrix methods, partial differential equations, gaussian quadrature, the complex error function, statistical functions, multivariate statistics, analysis of variance, random numbers, Bresenham's line-drawing algorithm, contour plotting, sorting, peripheral drivers, and Roman numerals. Complete C programs are presented and discussed to solve each type of problem. An appendix contains needed support routines from the earlier book. Whether read for exposition, problem-solving, or programming examples, this work rewards its readers well.

G. Michael Van Ty Smith  
NASA STI Facility  
RMS Associates

*Printed circuits design: featuring computer-aided technologies.* By Gerald L. Ginsberg. New York: McGraw-Hill; 1990. 324p. \$39.95. ISBN 0-07-02309-8.

If an engineer wishes to design and manufacture a new piece of electronic equipment, utilizing the current state-of-the-art technology in an efficient, cost effective manner, it is essential that he/she know and understand the concepts, production and validation phases behind the design of electrical assemblies. The author's background is in the area of printed circuit design and electronic equipment packaging. He first describes the basic

and electrical performance considerations involved in using through-hole mounting or surface mounting of components. He then discusses flexible printed circuit design and computer-aided circuit design of the layout, component placement and conductor routing. A unique feature of the book is the emphasis on the use of CAD and the need for documentation at all stages of design through post-processing. There are excellent references at the end of each chapter.

R. J. Havlik  
University of Notre Dame

*The relational model for database management: Version 2.* By Edgar F. Codd. Reading, MA: Addison-Wesley; 1990. 538p. \$36.95. ISBN 0-201-14192-2.

Those who have followed Dr. Codd's work through the years will find in this work a comprehensive exposition of his papers since his 1970 journal publication of the relational database model. Others will for the first time be rewarded by his clarity, directness, and scope. Dr. Codd has organized this presentation around 333 discrete features categorized into eighteen classes: Authorization; Basic operators; Catalog; DBMS design principles; DBA commands; Functions; Integrity; Indicators; Language design; Manipulation; Naming; Protection; Qualifiers; Structure; Data types; Views; Distribution; Advanced operators. The twenty-eight page index provides excellent access to these features, and a specialized appendix is included which groups features by class. Each feature has a coded label, a priority (basic or fundamental), title, and page reference. The level of presentation emphasizes practical use of the relational model; specialists and non-specialists alike will profit from a front-to-back reading of the book. Its

structure and indexes make it a useful reference.

G. Michael Van Ty Smith  
NASA STI Facility  
RMS Associates

*Software that works.* By Michael Ward. San Diego, CA: Academic Press; 1990. 232p. \$39.95. ISBN 0-12-735040-3.

The author has produced an entertaining and useful personal manifesto on the creation and fielding of computer software. Serious proponents of formal and semi-formal methods may be taken aback at his jocular pragmatism; perhaps they would especially benefit from a reading. The chapter headings reveal the tenor and the scope of this work: getting started, issues of design, structured methods, the iterative cycle, prototypes, analysis, requirements, decomposition, dataflow, data dictionary, the state machine, modularity, data hiding, interfaces, the module tree, flow charts, conventional wisdom, program design language, error checking, writing code, testing, designing with projects large and small, the sound of one hand clapping, and two appendices, a small design example, and an initial design of a large system. The style is expository, some may say declamatory; but this is a serious contribution. Mr. Ward's coverage is broad, and it works.

G. Michael Van Ty Smith  
NASA STI Facility  
RMS Associates



## ELECTRONICS

1. *Superconductors—conquering technology's new frontier*. By Randy Simon and Andrew Smith. New York: Plenum Press; 1988. 326p. \$23.95. ISBN 0-306-42959-4.

2. *High temperature superconductivity—the first two years*. By Robert M. Metzger. New York: Gordon and Breach Science Publishers; 1989. 434p. \$49.00. ISBN 2-88124-299-5.

3. *Superconductivity*. Edited by Koichi Kitazawa and Kyoji Tachikawa. Pittsburgh, PA: Materials Research Society; 1027p. \$62.00. ISBN 1-55899-035-6.

The development and application of superconductivity technology and its promise for revolutionizing civilization form the basic theme of the referenced books.

Book One presents the history of superconductivity and the persons contributing to its development, theoretical explanations of the phenomenon, techniques for producing superconductive materials, and predictions of practical applications. A glossary defines many of the terms used and a list of books for further reading is provided.

Book Two contains the proceedings of a conference on high temperature superconductivity which was held at the University of Alabama in April 1988. Forty-two papers by 180 authors are presented on such subjects as obtaining superconductivity at 40, 90, and 120 degrees Kelvin, the processing of superconducting materials, and the latest theories of superconductivity. The book concludes with an affiliation index identifying the various organizations performing superconductivity research.

Book Three is Volume Six of a fourteen-volume series containing the proceedings of the First Materials Society International Meeting held at Sunshine City, Tokyo, in May-

June 1988. This volume consists of 250 papers prepared by more than 500 authors. The extensive coverage of the subject is presented in thirteen general divisions which discuss physical properties, crystal structure, electron structure, thin films, irradiation effects, magnetic properties, and new materials. Many charts, diagrams, and photographs are included as visual aids to clarify the text.

The reader of these books will be impressed by the extent of superconductivity research and the advancements which have been achieved in this exotic field of physics.

Philip N. French  
NASA STI Facility  
RMS Associates

## ENVIRONMENTAL STUDIES

*Planet under stress, the challenge of global change*. Edited by Constance Mungall and Digby J. McLaren for the Royal Society of Canada. Toronto, Canada: Oxford University Press; 1990. 344p. ISBN 0-19-540731-8.

Alarming coverage of the world's environmental problems is provided in sixteen chapters by thirty-five authorities in fields of natural sciences and social sciences. The conditions created by population growth, deforestation, soil erosion, energy needs, the warming trend, waste disposal, and the pollution of air and water are concisely summarized. Subsequent chapters expand on these subjects with many charts, diagrams, and photographs to augment the text. The obvious conclusion is that human interactions with environment are rapidly creating an uninhabitable planet and the extinction of human life may not be far off unless corrective measures are enforced.

Philip N. French  
NASA STI Facility  
RMS Associates

*Sustaining the earth.* By John Young. Cambridge, MA: Harvard University Press; 1990. 225 p. \$19.95. ISBN 0-674-85820-4.

As a departure from the meteorological aspects of environmental degradation, the author examines the subject to show the impact of societies on pollution problems. The characteristics of societies which have kept a beneficial relationship with the environment are compared with those of industrialized nations. The philosophic beliefs of economists, sociologists, and environmentalists are incorporated into discussions which show that economic, political, and moral, as well as technical, impacts must be considered. The overall theme of the book as expressed by the author is that the Amazon rain forest is not being destroyed to feed the poor Brazilians, but to supply the rich North Americans with beefsteak. The author concludes that environmentally sound methods of industrial production, transportation, and agriculture make economic as well as ecological sense and hold promise for a much cleaner future.

Philip N. French  
NASA STI Facility  
RMS Associates

#### HEALTH SCIENCES

*AIDS: The second decade.* Edited by Heather G. Miller, Charles F. Turner, and Lincoln E. Moses. Washington, DC: National Academy Press; 1990. 510p. \$24.95 (paper).

The Committee on AIDS Research and the Behavioral, Social, and Statistical Sciences of the National Research Council, has worked since 1987 to produce this coherent report on the state of AIDS knowledge as the epidemic heads into its second decade. The book is well organized, and seems to cover all essential areas relating to AIDS. The editors focus on

strategies for prevention of AIDS and repeatedly emphasize the crying need for further study and additional research. For instance, more work is needed to find methods of educating and modifying the behavior of people at greatest risk from AIDS: intravenous drug users and adolescents. The report devotes separate chapters to adolescents, female prostitutes, and the national blood supply: adolescents, because they engage in unprotected sexual activity with insufficient knowledge of the risks involved; female prostitutes, who are at risk not so much through their clients as through their personal associations; and the blood supply, because effective methods have been developed to assure that donated blood is disease-free, but our national blood supply is dwindling. Another chapter is devoted to the methodology of the surveys used to obtain the information that forms the basis for the report. The book is written well and clearly, but aimed at policy and budget makers, rather than the general public.

Lee Blue  
NASA STI Facility  
RMS Associates

*Drinking water and health. Volume 9: Selected issues in risk assessment.* By National Research Council, Safe Drinking Water Committee. Washington, DC: National Academy of Sciences; 1989. 268p. \$29.95. ISBN 0-309-03897-9.

This is the ninth and final volume in the NRC series of studies, *Drinking water and health*, mandated in 1977 as a result of the passage of the 1974 Safe Drinking Water Act (US Public Law 93-523). It has been the goal of the reports to review current toxicologic data and assess the risks associated with specific drinking water contaminants. This vol-

ume is devoted to two current topics: 1) molecular adducts of DNA and their effects on human health, and 2) problems of multi-chemical exposure from drinking water. The overview of the issue and current research data and the assessment and recommendations for further research are made by a panel of experts who are members of various NRC committees. The volume also contains a cumulative index for all nine volumes in the series.

Robert J. Havlik  
University of Notre Dame

*Water quality and treatment: a handbook of community water supplies.* 4th ed. By the American Water Works Association. New York: McGraw-Hill; 1990. 1194p. \$89.50. ISBN 0-07-001540-6.

This is an important revision of an authoritative and necessary book in the field of water quality and treatment. For this new edition, 26 experts have addressed water quality issues for both municipal and industrial water supplies. Emphasis is upon the new stringent regulations for drinking water, recent advances in water treatment, and continued progress toward higher standards for potable water. The chapters cover topics ranging from the health and aesthetic aspects of water quality to the daily operations of disinfection, fluoridation, and microbiological quality control. Users should be aware of the new recent edition of *Water Treatment Plant Design*, by AWWA, which complements this volume. With it, engineers will have recent data not only on the theory and practice of water quality, but on the practical aspects of designing plants to accomplish this.

Robert J. Havlik  
University of Notre Dame

## INDUSTRIAL ENGINEERING

*The automated factory handbook, technology and management.* By David I. Cleland and Bopaya Bidanda. Blue Ridge Summit, PA: TAB Professional and Reference Books; 1990. 812p. ISBN 0-8306-9296-7.

The authors state that there is growing evidence to show that the United States is no longer industrially competitive and that corrective actions in the form of an integrated approach to manufacturing supported by new technologies are needed. Examples of automated techniques such as flexible manufacturing system (FMS), computer aided design (CAD), computer aided manufacturing (CAM), and computer integrated manufacturing (CIM) are proposed. Forty-four authors discuss the concepts, tools, and techniques of operating an automated factory. Thirty-eight chapters are concerned with subjects of personnel management and organization, quality control, production teams, software management, facility layout, and industrial robot applications. Many charts, drawings, and diagrams are used to clarify the organizational and operational techniques. A glossary is provided to define the terms and acronyms used in automation technology. During the transition to automated productivity and the resultant reduction in the work force, it should be remembered that robots do not buy the products.

Philip N. French  
NASA STI Facility  
RMS Associates

*Made in America, regaining the productive edge.* By Michael L. Dertouzos, Richard K. Lester, and Robert M. Solow. Cambridge, MA: The MIT Press; 1989. 344 p. \$17.95. ISBN 0-262-03100-6.

With a very complete and dynamic approach, a team of scientists, engineers, and economists present the findings of a two-year study on the industrial condition of the United States. After a preliminary look at the peculiarities of eight modern industries, the authors discuss the position of the United States in world economy with respect to productivity, manufacturing, the trade deficit, and the macroeconomic environment. Six chapters are concerned with the specific causes for the decline of U.S. productivity, with emphasis on the impact of archaic practices. Four chapters present suggestions and recommendations to improve U.S. productivity and examine the contributions which can be made by industry, labor, government, and educational institutions. The book continues with detailed reports on the industry studies which were conducted and contains an appendix on policy recommendations. A list of the names and positions of the persons who participated in the study is very impressive and does much to establish the validity of the findings.

Philip N. French  
NASA STI Facility  
RMS Associates

*Managing the design manufacturing process.* By John E. Ettlie and Henry W. Stoll. New York: McGraw-Hill; 1990. 285p. \$49.95. ISBN 0-07-019713-X.

The relationship between the design process and manufacturing functions is an important factor in the success or failure of a leading-edge company. Without coordination

of the two, companies can be faced with higher costs, poor product quality and slow response to customer needs and demands. This book strives to make the reader aware of what they call "disciplined anticipation" of the consequences of new ideas and change. In the first section they describe the history of their idea and the need for a philosophy called "Design for life-cycle manufacturing" (DMF). The second section presents seven case histories of use of this system by companies such as General Motors, General Electric, IBM, A. B. Chance and Northern Telecom. The last section is a synthesis of the authors' understanding of how to plan and execute this new philosophy for more successful management.

Robert J. Havlik  
University of Notre Dame

#### LIBRARY AND INFORMATION SCIENCE

*The library manager's guide to automation.* 3rd ed. Richard W. Boss. Boston: G. K. Hall; 1990. 201p. \$42.50. ISBN 0-8161-1942-0.

The automation of technical libraries has become an expensive and delicate operation. Managing these facilities is a task that requires a great deal of training and exposure to insure that the technical functions are cost worthy, and that the information is readily accessible. The text illustrates the present state of local library automation, its benefits to libraries, future trends, and the library managers' role in the process. In this edition, the author has developed from his experience as a consultant in the information systems field a context of checks and balances that managers may consider before implementing or upgrading their library services. The author's views and suggestions are a reflection of the skills and experience that he possesses. Throughout the text,

the emphasis is on the technical decisions that must be made, as well as the steps in the process of making and carrying out these decisions. This edition is well prepared and descriptive, and includes an index, bibliography of references, and a glossary with definitions of terms. This text is a must for managers in the information systems arena that are looking for a basis to create an efficient service or to supplement or refine their skills to meet present and future challenges.

Jonathan W. Grant  
NASA STI Facility  
RMS Associates

#### MARINE ENGINEERING

*Command at sea.* 4th ed. By William P. Mack, Vice Admiral U.S. Navy (Ret.) and Albert H. Konetzni, Commander, U.S. Navy. Annapolis, MD: Naval Institute Press; 1988. 519p. \$19.95. ISBN 0-87021-130-7.

The authors state that to be the commanding officer of a U.S. Navy ship regardless of the size with the title of Captain, regardless of actual rank, is the most sought-after position in the Navy. The Captain is solely responsible for the effectiveness of his vessel in performing its assigned mission and for avoiding unnecessary endangerment of his command. Fourteen chapters provide instruction for taking command, building morale, administrative practices, maintenance of the ship, active duty with the fleet, independent operations, and combat operations. Thirteen appendices contain sample orders for various conditions and comments by famous naval officers. Many photographs and drawings are included to enhance the text. Although directed toward prospective commanding officers of the U.S. Navy, the principles of personal conduct and

interpersonal relations expressed in the book apply to civilian situations as well.

Philip N. French  
NASA STI Facility  
RMS Associates

*Water baby: the story of Alvin.* By Victoria A. Kaharl. New York, NY: Oxford University Press; 1990. 356p. \$21.95. ISBN 0-19-506191-8.

The effective exploration of extreme oceanic depths has been made possible by a variety of deep diving submersibles of which Alvin is one of the best known. The author begins by discussing the history of diving developments, the design and construction of Alvin, and its early performance tests. In addition to exploring inner space, the use of Alvin to locate a missing hydrogen bomb off the coast of Spain and also to photograph the wreckage of the Titanic is well documented. Alvin's primary use as a research vehicle is described to show the engineering modifications which made dives to 12,000 feet possible, the results obtained, and the determination of operating personnel to overcome technical and natural obstacles. The text is supported by excellent color photographs of Alvin combined with pictures taken of the Titanic and the environment found at great depths. This book should convince the reader that the exploration of inner space is as dangerous and rewarding as outer space activities.

Philip N. French  
NASA STI Facility  
RMS Associates

#### MATERIALS ENGINEERING

*Analysis and performance of fiber composites.* 2d ed. By Bhagwan D. Agarwal and

Lawrence J. Broutman. New York: John Wiley; 1990. ISBN 0471-51152-8.

This updated version of the original text serves as one of a few complete sources on the elements of composite structures. The authors succeed in presenting the basic concepts as well as some advanced topics, all the while providing reference lists for additional sources of information. The added section on manufacturing and the updating of the text provides the reader with a current view of the complexities facing the designer of composite structures. The text appears to be well balanced with a proper blend of photographs and figures to illustrate key points. This text is well suited for a semester course at either a senior undergraduate or first-year graduate level. Additionally, the text can be used in part as a reference for an advanced graduate course in composite structures.

Anthony J. Vissini  
Composite Research Laboratory  
University of Maryland, College Park

*Composite materials in aircraft structures.* Edited by Donald H. Middleton. London: Longman Group UK Ltd., copublished in the USA by John Wiley. 1990. 394p. \$124.00. ISBN 0-582-01712-2.

The use of composite materials is of ever-increasing interest to manufacturers of a large variety of products because their substitution for other materials can often result in a reduction in the product's weight without a reduction of its strength. These properties have been of particular interest to aircraft designers. Unfortunately, traditional aircraft design texts deal with composites as only a brief topic if at all. Further, many composites texts and references do not cover specific applications of composite materials. This book is a wel-

come combination of basic information regarding composites as well as their use in aircraft. Each chapter is written by a different author or authors giving a broad view of the subject. The entire process of using composites in an aircraft is covered from concept to fabrication and testing. Over one-third of the book is taken up by one chapter covering sixteen design studies of specific aircraft or types of aircraft utilizing composite materials. Much general aircraft design information is included as well, making this a good text or reference for courses in aircraft design.

William R. Pogue III  
Composites Research Laboratory  
University of Maryland, College Park

*Composites: an insider's guide to corporate America's activities.* New York: Turner Moss Co.; 1989. 437p. \$157. ISBN 0-9623228-4-9.

The subtitle of this book almost says it all about the book; it reads as follows: "The Engineer's, the Marketer's, and the Business Planner's Reference Book Containing Technical Profiles of over 400 Business Entities in the United States Currently Performing Significant Composites Work." The only group left out is college faculty and students, graduating students in particular. This reference book contains outlines of approximately 450 corporate entities. Each outline contains information on a specific company or subsidiary including: name, address, and telephone number; corporate ownership; a technical description of the company's composites work; types of technical personnel employed; name and titles of composites related people; and a description of the company's composites facilities. Each company is referred to by an identification number. The remainder of the book, the vast majority, is composed of tables

and indices in which the companies are listed, usually by reference number, according to geographic location, type of work done, type of personnel employed, etc. For anyone doing work in the composites field, this book is an extremely valuable reference. The group which compiled the information for the corporate outlines did a thorough job of gathering and condensing a large amount of data. Graduating students need only leaf through the book to find literally hundreds of potential employers. This book is a must for technical libraries serving composites related users, particularly those of colleges and universities.

William R. Pogue III  
Composites Research Laboratory  
University of Maryland, College Park

*Concise encyclopedia of composite materials.* Edited by Anthony Kelly. Cambridge, MA: MIT Press; 1989. 317 p. ISBN 0-262-11145-4.

This book is drawn from entries of the earlier publication *Encyclopedia of material science and engineering*, with the inclusion of additional articles necessary to provide a comprehensive treatment of the subject. Entries such as "Carbon fibers" and "Thermosetting resin matrices" provide a brief but informative chemical description of constituents. Other entries describe manufacturing techniques and mechanical properties. Articles on the applications of composite materials were drawn from a wide variety of sources including medical and dental technology, for example, as well as the engineering fields. Every effort was made to present the latest technical advances in each topic.

People who routinely work with composites may find the volume a handy source of information on composite topics outside their

primary fields of interest. For those unfamiliar with the use of composite materials, this volume is an excellent source of information. The Encyclopedia is generally clearly written and is easy to use. The subject index is thorough and there are cross-references within the articles. A bibliography at the end of each article directs the reader to relevant sources of information, making the volume a good starting point for the study of almost any composites topic.

David C. Fleming  
Composites Research Laboratory  
University of Maryland

*Dictionary of composite materials technology.* By Stuart Lee. Lancaster, PA: Technomic Publishing Company; 1989. 160p. ISBN 87762-600-6.

Composite materials technology is an extensive subject which combines a number of very different disciplines. It is difficult for any one person to be fully versed in areas that range from materials processing and chemical formulation to structural designing and testing. This book helps bridge the gaps between these disciplines. The author has succeeded in his goal to provide a text which is a "source of information about the many key facets, as well as common, new and unfamiliar terminology associated with composites." The book also provides an explanation of the many abbreviations, acronyms, and mathematical symbols utilized in the field of composites. The entries themselves are both well written and well organized. Most technical terms utilized in one entry are defined in another. If further information is available elsewhere in the text, it is referenced at the end of the entry. Also, the book is part thesaurus because it cross-references synonymous terms throughout the

text. This dictionary would be a useful general reference for anyone in the field of composite materials. Furthermore, the concise definitions provided would be helpful in writing technical papers.

Joseph Orso  
Composites Research Laboratory  
University of Maryland, College Park

*Delaware composites design encyclopedia*. Lancaster, PA: Technomic Publishing Company; 1989-90. 6 vols. \$1,275.00.

This series of books is an excellent compilation of information on composites design. The distinguished list of authors of the various volumes is a veritable *Who's Who* in composite materials. Each volume, and often each section, is written to stand alone as a treatment of a specific part of the composite materials field. Although some portions of the set are written at an introductory level for a specific topic, as a whole the set is best for those already familiar with some field of materials science, if not composites. Overall, the set is an outstanding reference source on these materials; it consists of the following volumes:

v. 1 Mechanical behavior and properties of composite materials. Topics covered include constituents of composite materials; mechanics of the materials; static and elastic properties; fatigue; and woven and cloth materials.

v. 2 Micromechanical materials modeling. Topics covered include anisotropic elasticity; models for continuous fiber, discontinuous fiber, and particulate materials; viscoelastic materials; and transport of energy.

v. 3 Processing and fabrication technology. Topics covered include the processes by which constituents of composites are made;

reinforcements; molding techniques; rheology; and curing.

v. 4 Failure. Topics covered include descriptions and illustrations of failures; effects of exposure; effects of friction; and prediction of wear.

v. 5 Design studies. Topics covered include analysis and modeling of structures; equations for analysis; analysis of computer codes; and structural analysis.

v. 6 Test methods. Topics covered include properties to be tested for; ASTM standards; non-destructive testing; ultrasonic testing; and interlaminar fracture.

William R. Pogue III  
Composites Research Laboratory  
University of Maryland, College Park

#### MILITARY ENGINEERING

*The encyclopedia of twentieth century warfare*. Ed. by Dr. Noble Frankland. New York: Crown Publishers; 1989. 464p. \$40.00. ISBN 0-517-56770-9.

The book begins with a prelude to modern warfare, 1815-1914, to show the development of weapons systems and the more prominent individuals who were active during that period. The context is an alphabetical listing of the leaders, nations, campaigns, and weapons of military science from pre-World War I through the proposed systems of the Strategic Defense Initiative. Three thousand entries define military terminology, with extensive use of photographs, drawings, and maps to support the written text. Seven in-depth essays are interspersed with the definitions to discuss subjects such as land warfare in the 20th century, war at sea, the emergence of air power, limited war in the nuclear age, underground warfare, and the nuclear stalemate. The clear and concise descriptions of weap-



ons technology and operational aspects provide exceptional coverage of significant military developments.

Philip N. French  
NASA STI Facility  
RMS Associates

#### MINERALOGY

*Gemstones.* By Michael O'Donoghue. New York: Chapman and Hall; 1988. 372p. \$59.90 U.S.; \$77. Canada. ISBN 0-412-27390-X.

This book describes the many facets of knowledge needed by the gemologist, ranging from the natural and artificial formation of gem crystals (including the related physics, chemistry, and geology) to how to test and how to buy gems. The itemized tests tell how to determine hardness, specific gravity, response to light, color, inclusions, and flaws. The importance of a microscope in studying gemstones is made clear. Organic and inorganic materials are listed alphabetically with their chemical formulae, physical descriptions, and mine locations. This, the table of contents, a glossary, and an index with good cross references, provide easy access to information about any gemstone or process. There are also 18 fine color illustrations. For anyone interested in crystallography in general, or gemstones in particular, this is an important reference book.

June P. Silvester  
NASA STI Facility  
RMS Associates

#### NUCLEAR PHYSICS

*The legacy of Chernobyl.* By Zhores Medvedev. New York: W. W. Norton; 1990. 352p. \$24.95.

This book describes the most expensive accident in human history. It is a fascinating account of the accident itself and the impact of the accident on the Soviet Union, both in terms of the direct health consequences and the future of its nuclear program. Written by a former Soviet scientist who now lives in London, the book is also a testimony to the emerging glasnost that is allowing us to learn more about Soviet policy and technology. Despite some minor inaccuracies, surprising omissions (no discussion of High Temperature Gas-Cooled Reactors (HTGRS)), and a style that is somewhat cumbersome, this book is a valuable addition to the growing information on Soviet nuclear power and the accident that surely will reshape it.

James F. Meyer  
Rockville Division  
SCIENTECH, Inc

#### PHYSICS

*The facts on file dictionary of physics.* Edited by Dr. John Daintith. New York: Facts on File, Inc.; 1988. 235p. \$12.95. ISBN 0-8160-2366-2.

*The facts on file dictionary of mathematics.* Edited by Carol Gibson, New York: Facts on File, Inc.; 1988. 235p. \$12.95. ISBN 0-8160-2365-4.

Each book presents concise definitions and explanations of more than 2000 terms, in alphabetical order, pertaining to the specific discipline. In the physics book subjects from the most basic to the latest advancements in quantum physics are examined. The mathematics book coverage includes items on alge-

bra, geometry, calculus, and computer operations. Both books contain drawings, graphs, mathematical models, and tables of data to enhance the text. Appendices in each book tabulate many symbols and designators appropriate to the subject. The content and format of the books make them an easily understood collection of facts for all levels of understanding.

Philip N. French  
NASA STI Facility  
RMS Associates

*Quantum mechanics on the personal computer.* By S. Brandt and H. D. Dahmen. New York: Springer-Verlag; 1989. 267p. \$49.50. ISBN 0-387-51541-0/

This new book is based on *The picture book of quantum mechanics* by the same authors. Both are intended as supplements for quantum mechanics courses, and further reading selections are well documented. The latest presentation includes executable programs for IBM XT/AT compatible machines on a one 5.25-inch, 1.2 Mbyte disk. Although no compilers are needed to run the software, a math coprocessor is strongly recommended. A user can select various program options and the video display is stimulating, but for me the lack of source code is disappointing.

Larry Bliven  
NASA Wallops Flight Facility

*The secret life of quanta.* By M. Y. Han. Blue Ridge Summit, PA: TAB Books; 1990. 192 p. \$17.95.

Dr. Han is attempting to accomplish a task that many publishers and authors have unsuccessfully tried for many years. It is to produce a science text that is in depth and comprehensive, and yet simplistic and inter-

esting. The author may have taken a step in the right direction. The text is focused on the assumption that a gifted expositor can explain to nonscientists how the laws of quantum physics operate in high technology devices and processes with which we have almost daily contact. The twelve chapters are developed by sub-headings dealing with different technical and physical science properties and their applications in quantum physics. Perhaps the most astounding adage of the text is that each quantum measure is explained without aid of any mathematical computations. The text is very well written and provides a method for explaining the phenomena of science, without the fears of many, that the subject is too hard to understand.

Jonathan W. Grant  
NASA STI Facility  
RMS Associates

*Theoretical physics on the personal computer.* 2d ed. By E. W. Schmid, G. Spitz, and W. Losch. New York: Springer-Verlag; 1990. 213p. \$49.50. ISBN 0-387-52243-3.

This well written book is derived from a lecture course at the University of Tübingen. The package comes with one 5.25-inch, 1.2 Mbyte disk of FORTRAN programs that are written for IBM PC-compatible computers. The introduction provides details of hardware and software requirements; one notable necessity is either a Microsoft FORTRAN-77 (version 4.0 or later) or IBM FORTRAN/2 compiler. The program source code and graphic library can be modified by the user to develop further the physical models. Some topics presented are harmonic oscillators, quantum mechanics, and celestial mechanics. The book is suitable as a textbook because the diverse topics are presented congruously and with

increasing complexity. But since each chapter is self contained, individuals with specific interests can explore a topic and visualize the processes with computer models. This is a superb teaching aid for advanced undergraduate level students in physics and numerical analysis.

Larry Bliven  
NASA Wallops Flight Facility

#### SCIENCE, GENERAL

*Time journeys, a search for cosmic destiny and meaning.* By Dr. Paul Halpern. New York: McGraw-Hill; 1990. 153p. \$11.95. ISBN 0-07-025706-X.

*Time, memory, and society.* By Franco Ferrarotti. CT: Greenwood Press; 1990. 160p. \$39.95. ISBN 0-313-26828-2.

Various concepts of the nature of time as being cyclical, destructive, and creative with comparisons of the effects on biological, astronomical, geological, philosophical, psychological, historical, and theological disciplines are discussed. In eight chapters the author examines temporal periodicity, irreversible change, causality and synchronicity, and concludes with multiforked and atomistic notions of time. Specific examples of many writers' versions of time are used to reinforce the author's approach. The obvious conclusion is that the world would not exist without time and time would not exist without the world.

Mr. Ferrarotti presents a rambling discourse on the sociological aspects of time, much of which is based on expressions of well-known and lesser-known individuals who have developed their attitudes regarding the nature and effect of the subject called time. Many interrelated facets pertaining to an

appreciation of time are summarized by understandable statements which surface through the philosophical discussions. An example is the author's statement that perception of time by individuals and social groups is in proportion to the context. It varies not only from one age to another in a diachronic sense, but from culture to culture and society to society, even when it is a matter of culture and society present and interacting in the synchronous plane.

Philip N. French  
NASA STI Facility  
RMS Associates

*Serendipity: accidental discoveries in science.* By Royston M. Roberts, New York: John Wiley; 1989. 270p. \$12.95. ISBN 0-471-60203-5.

After defining the term serendipity and the author's coined term pseudoserendipity, the author shows how the element of chance was involved in so many significant historical occurrences. The contributions of Archimedes, Columbus, Sir Isaac Newton, Pasteur, Daguerre, and the Curies and those of modern scientists are discussed. Emphasis is placed on the almost accidental development of medicines, vaccines, and anesthetics which have improved world-wide health standards. Specific substances such as vulcanized rubber, synthetic dyes, sugar substitutes, safety glass, nylon, teflon, and gasoline are examined to show the element of chance in their creation. With many photographs and drawings, the author has assembled an entertaining collection of stories which support the proposition that chance favors the prepared mind.

Philip N. French  
NASS STI Facility  
RMS Associates

## STATISTICS

*Parameter estimation in ecology: the link between data and models.* By Dr. Otto Richter and Dr. Dagmar Sondgerath. New York: VCH Publishers; 1990. 218p. Hardbound. ISBN 0-89573-917-8.

Combining ecological model building and the application of advanced statistical methods for parameter estimation, this book provides the statistical and numerical tools needed to estimate parameters from experimental data using differential equations. Examples based on real data illustrate their use. Sections are included on stochastic models, binomial distribution, hypergeometric distribution, Poisson distribution, the generalized Leslie Process, and the Lotka-Volterra competition model. Major sections are Mathematical and Statistical Tools, Models in the Form of Probability Distributions, Discrete Population Dynamic Models, and Continuous Ecosystem Models. For statistical analysis, computer programs are provided in BMDP, SAS, BASIC, and PASCAL. A substantial percentage of the book is consumed by differential equations, tables, and graphs. Appendices are Probability and Statistics, Convergence of Iterative Schemes, and the Evaluation of Maximum Likelihood Estimators of the Negative Binomial Distribution. A short reference section, a very modest suggested reading list, and an index are included. The book is printed on acid-free paper.

Paul Purcell  
NASA STI Facility  
RMS Associates

## TECHNOLOGY, GENERAL

*The evolution of technology.* By George Basalla. New York: Cambridge University Press; 1988. 248p. \$32.59, \$10.95 (paper.) ISBN 0-

521-2285-7.

In a logical and entertaining manner, the author challenges the belief that inventions are the result of revolutionary upheavals in technology brought about by individual geniuses. From stone tools to the nuclear reactor a convincing thesis for the growth of technology from natural antecedents is developed. By specific examples it is shown that technology evolution is rooted in the four concepts of diversity, continuity, novelty, and selection. The circumstances leading to the cancellation of the American supersonic transport aircraft provide a convincing example of the life and death of technological innovation.

Philip N. French  
NASA STI Facility  
RMS Associates

*Forty years of firsts, the recollections of a Dow Corning pioneer.* By Dr. Earl Warrick. New York: McGraw-Hill; 1990. 330p. \$29.95. ISBN 0-07-068330-1.

The beginning of the Dow Corning Corporation as a World War II expediency and its post-war accomplishments are presented in a chronological manner. Emphasis is placed on the research activities of key personnel and their contribution to the continued growth of the company. The chemical processes which created the products to meet special requirements are explained in a non-technical presentation. The book is an excellent object lesson in the principles of successful organization and management.

Philip N. French  
NASA STI Facility  
RMS Associates

*Technology in world civilization: a thousand-year history.* By Arnold Pacey. Cambridge, MA: The MIT Press; 1990. 238p. \$19.95. ISBN 0-262-16117-6.

*Science and technology. lessons for development policy.* Edited by Robert E. Evenson and Gustav Ranis. Boulder, CO: Westview Press; 1990. 391p. \$35.00. 0-8133-7858-3.

The first book presents a history of technological advancements beginning with Asian inventions in AD 700 to survival technology in the 20th Century. Examples of significant developments are discussed in areas of weaving, weapons, printing, shipbuilding, agriculture, transportation, and manufacturing. Many illustrations provide clarification of the text in this never-ending story of mankind's efforts to improve the standard of living.

The purpose of the second book is to show that the application of science and technology in a developing country should speed growth and increase competitiveness by improving efficiency in using scarce resources. An introduction and four parts present subjects such as general theoretical notions and typologies, relevant experience at the country level, relevant experience at the sector level, and the process of international transmission of technology. Contributions by 21 authors expand the generalities of the four parts. The editors conclude that even though various empirical studies have been made on this subject, more economic analysis is required because of the many questions left unanswered.

Philip N. French  
NASA STI Facility  
RMS Associates

## ZOOLOGY

*The greenpeace book of dolphins.* Edited

by John Day. New York: Sterling Publishing Company; 1990. 159p. \$29.95. ISBN 0-8069-7484-2.

The characteristics of dolphins, orcas, and their relatives which have made them so popular in their appearance in motion pictures, television programs, and aquarium shows are examined in a scientific manner. Chapters of the book discuss the members of the Cetacean family to show their evolution, intelligence, anatomy, world-wide distribution, and social behavior. The controversial use of dolphins for military purposes is described followed by specific examples of cetacean adaptation to aquarium life and public performances. The book concludes with perspectives of the Greenpeace organization to prevent the indiscriminate annihilation of these intelligent creatures. The lavish use of color photographs, some of which are very graphic, create a lasting impression on readers of all ages.

Philip N. French  
NASA STI Facility  
RMS Associates

### SLA's Self-Study Program

#### **"Winning Marketing Techniques: An Introduction to Marketing for Information Professionals"**

This self-study program is available  
in a workbook format.

For further information contact SLA's Professional  
Development Section, 202/234-4700.

## LOOKING BACKWARD

Ellis Mount

Obtaining technical reports has never been a simple matter when dealing with those not freely available from agencies such as NASA or NTIS. Barriers in the form of military classifications (Secret, Top Secret, etc.) have been one obvious occurrence; other barriers are based on more subtle considerations. The history of availability of technical reports dates back many decades. An example of this is the article that appeared in the Fall-Winter 1965 issue of *Sci-Tech News* entitled "The 'L' Report and the Report Gap." Written by Michel O. Friedlander at the Engineering Library of Grumman Aircraft Engineering Corporation, it points out the increase in the number of "L" reports (limited distribution reports) among those listed in *TAB (Technical Abstract Bulletin)*. This, he felt, was accompanied by what he termed a "report gap," meaning a loss of access to reports that for various reasons were not even available to report agencies authorized to maintain such documents for the Department of Defense. In 1962 it was estimated that ASTIA (the DOD

report agency at that time) was receiving reports from only 25% of all prime contractors and 10% of all subcontractors. Friedlander was disturbed by the loss of information these two factors were creating in technical libraries/information centers.

Not having ready access to statistics on the current situation, it would be unwise to speculate whether conditions have improved significantly since then. Many of us recall efforts by previous administrations to make periodic reviews of classified documents a more effective way to prune down the number of classified documents that clearly needed to remain classified, but we also remember recent efforts in Washington to limit access to data obviously not classified.

Perhaps readers of *Sci-Tech News* may include someone with access to an accurate assessment of the status of access to reports of limited availability. If so, such persons would find an immediate access to the columns of this publication for bringing the topic up-to-date.

## Help Shape SLA's Future

In February 1991, SLA will conduct a membership survey similar to the 1986 "super survey." As we gear up for this critical project, we are asking for your support. Approximately 1/3 of the membership will receive the survey instrument. If you are selected to participate, please help shape SLA's future by completing the questionnaire. If you have any questions about the 1991 "super survey," please contact Tobi Brimsek, Director, Research, at Association Headquarters. ■

## DIRECTORY

### AEROSPACE DIVISION

#### Chair

Phyllis A. Fischer  
McDonnell Douglas Corporation  
MC2771080/022A  
P. O. Box 516  
St. Louis, MO 63166-0516  
314-232-6136; FAX 314-232-0790

#### Chair-Elect

Sandy Moltz  
Technical Information Center 24001  
General Electric Co.  
1000 Western Ave.  
Lynn, MA 01910  
617-594-5363

#### Past Chair

Lynn Ecklund  
Seek Information Services  
1800 Victory Blvd.  
Glendale, CA 91201  
818-242-2793; FAX 818-242-2876

#### Secretary

Sandy Spurlock  
Engineering Library  
Honeywell, Inc./Defense  
Avionics Syst. Div.  
9201 San Mateo Blvd., NE  
Albuquerque, NM 87113-2227  
505-828-5378; FAX 505-828-5500

#### Treasurer

Ellie Reiter  
Library B9265  
Martin Marietta Astronautics  
P. O. Box 179  
Denver, CO 80201  
303-977-6363; FAX 303-977-6412

#### Sci-Tech News Reporter

Steven Gass  
Engineering Library  
Terman Engineering Center  
Stanford University  
Stanford, CA 94305-4029  
415-725-1012; FAX 415-725-1096

### ENGINEERING DIVISION

#### Chair

Mary Ann Schmidt  
Walter Schroeder Library  
Milwaukee School of Engineering  
P. O. Box 644  
Milwaukee, WI 53201-0644  
414-277-7182; FAX 414-277-7186

#### Chair-Elect

G. Lynn Tinsley  
Engineering & Science Library  
Carnegie Mellon University  
Schenley Park  
Pittsburgh, PA 15213  
412-268-2428; FAX 412-681-1998

#### Past Chair

Fran Wood  
Kurt F. Wendt Library  
University of Wisconsin-Madison  
215 N. Randall Ave.  
Madison, WI 53706  
608-262-5913; FAX 608-262-4739

#### Secretary-Treasurer

Scott Brackett  
Smith Industries  
SLI Avionic Systems Corp.  
4141 Eastern Ave. SE  
Grand Rapids, MI 48518  
616-241-7467

#### Sci-Tech News Reporter

Judith Says  
Corporate Tech Center Library  
A. O. Smith Corporation  
P. O. Box 23990  
Milwaukee, WI 53223-0990  
414-359-4234; FAX 414-359-4248

## DIRECTORY

### NUCLEAR SCIENCE DIVISION

#### Chair

Eileen E. Chen  
U. S. Nuclear Regulatory Commission Library  
Washington, DC 20555  
301-492-8363; FAX 304-492-4994

#### Chair-Elect

Cynthia Ortiz  
U. S. Dept. of Energy  
Nevada Technical Library M/S 505  
P. O. Box 98518  
Las Vegas, NV 89193-8518  
702-295-1274

#### Past Chair

Audrey W. Caldwell  
Duke Power Company  
P. O. Box 33189  
526 South Church Street  
Charlotte, NC 28242  
704-382-0896

#### Secretary

Yvonne Curry  
ATOCHEM North America, Inc.  
1740 Military Road  
P. O. Box 1048  
Buffalo, NY 14240  
716-879-1651

#### Treasurer

Juanna Gee Shin  
Lawrence Livermore National Laboratory  
P. O. Box 5500 L-53  
Livermore, CA 94550  
415-422-5837

#### Sci-Tech News Reporter

Victoria F. Reich  
Nuclear Waste Technical Review Board  
1100 Wilson Blvd., Suite 910  
Arlington, VA 22209  
703-235-4473; FAX 703-235-4495

### SCI-TECH DIVISION

#### Chair

Monica Ertel  
Apple Computer, Inc. Library  
10381 Bandlely Drive  
Cupertino, CA 95014  
408-974-2552; FAX 408-725-8502  
E-mail: Bitnet:Ertel.m@applelink.apple.com

#### Chair-Elect

Dorothy McGarry  
UCLA Physical Sciences & Technology Libraries  
8251 Boelter Hall  
405 Hilgard Avenue  
Los Angeles, CA 90024-1598  
213-825-3438; FAX 213-206-3908  
E-mail: Bitnet ECZ5CTT@UCLAMVS

#### Past Chair

Wilda Newman  
Johns Hopkins University  
Applied Physics Lab Bldg. 7, Room 282  
Laurel, MD 20713-6099  
301-953-5721; FAX 301-953-1093  
E-mail: Wild@APLVM (Bitnet)

#### Secretary

Mary Ann McFarland  
Southern Illinois University  
Lovejoy Library  
Edwardsville, IL 62026  
618-692-3828; FAX 618-692-2831

#### Treasurer

Ellen Dotterer  
Rohm & Haas Co.  
Information Services Dept.  
727 Norristown Road  
Spring House, PA 19477  
215-641-7815; FAX 215-641-7857



***Smart Autoclave Cure of Composites***

Peter R. Ciriscioli, Ph.D., Stanford University; George S. Springer, Ph.D., Professor and Head of the Structures and Composites Laboratory, Stanford University

Practical guide and reference for optimum cure cycle selection and control. Presents analytical process models and describes a rule based expert system for real time control of autoclave processing conditions.

0-87762-802-5, 1990, 171 pp., 6×9, sc. **\$45.00**

***Electrorheological Fluids: Proceedings from the Second International Conference on ER Fluids, North Carolina State University, August 7-9, 1989***

Editors: Dr. J. David Carlson, Lord Corporation; Dr. A. F. Sprecher and Prof. Hans Conrad, Department of Materials Science & Engineering, North Carolina State University

The most recent advances in ER fluid technology. Applications include control systems, valves, dampers, isolators, robotics, artificial limbs, and automotive devices.

0-87762-739-8, 1990, 471 pp., 8½×11, sc. **\$145.00**

***Spatially Reinforced Composites***

Yu. M. Tarnopol'skii, I. G. Zhigun and V. A. Polyakov, Institute of Polymer Mechanics, Latvian SSR Academy of Sciences, U.S.S.R.

First comprehensive presentation of spatially reinforced composites science. Topics include multi-dimensional reinforcement, fiber whiskerization, carbon/carbon composites, testing methods, and design models.

0-87762-679-0, 1990, approx. 200 pp., 6×9, hc. **\$75.00**

***U.S.-Japan Workshop on Smart/Intelligent Materials and Systems: Proceedings from the U.S.-Japan Workshop on Smart/Intelligent Materials and Systems, March 19-23, 1990, Honolulu, Hawaii***

Editors: Iqbal Ahmad and Andrew Crowson, Materials Science Division, U.S. Army Research Office; Craig A. Rogers, Center for Intelligent Materials Systems and Structures, Virginia Polytechnic Institute and State University; and Masuo Aizawa, Department of Bioengineering, Tokyo Institute of Technology

34 new reports from materials science experts. Topics include smart/intelligent systems and structures; control, integration and mathematical modeling; and "smart" concepts.

0-87762-804-1, 1990, 357 pp., 8½×11, sc. **\$145.00**

***Reference Book for Composites Technology, Volumes 1 & 2***

Editor: Stuart M. Lee, Ph.D., Editor, *SAMPE Journal* (Society for the Advancement of Material and Process Engineering)  
"Ideal as a general starting point . . . the articles are all worthy and useful reference material . . . deserve their place in the reference section of any technical library." Paul Hogg, in *Advanced Composites Bulletin*

Both 1989, 8½×11, hc. Vol. 1: 0-87762-564-6, 333 pp. **\$75.00**; Vol. 2: 0-87762-565-4, 205 pp. **\$65.00**  
Both volumes: **\$119.00**

***Delamination in Advanced Composites***

Editor: Golam M. Newaz, Ph.D., Principal Research Scientist, Engineering Mechanics Department, Battelle Corp., Columbus Div.

Current developments in the understanding of delamination problems in advanced composites. Includes reports from leading authorities on analysis, methods, and delamination toughness for both thermoset and thermoplastic composites.

0-87762-753-3, 1991, approx. 493 pp., 6×9, sc. **\$65.00**

***Primer on Composite Materials Analysis, Third Edition***

John C. Halpin, Ph.D., Air Force Materials Center, Wright-Patterson AFB; Materials Research Laboratory, Washington University

Newly revised edition of this widely-used basic text. Concise and readily comprehensible presentation of fundamental concepts.

0-87762-754-1, 1991, 6×9, sc. **\$45.00**

Detailed brochures are available on each of these books.

Telephone: 1-800-233-9936 Fax: 717-295-4538



851 New Holland Ave., Box 3535  
Lancaster, PA 17604, U.S.A.

Gain valuable knowledge about  
less expensive alternatives to the European sci-tech journals!

# SCIENTIFIC JOURNALS

New  
Book!

Improving Library Collections Through Analysis  
of Publishing Trends

**Tony Stankus, MLS**

Science Librarian, Science Library, College of the Holy Cross, Worcester, Massachusetts

If you are facing a dilemma in choosing complicated and expensive science journals for your collection, help has arrived in the form of the new book **Scientific Journals**. Author Tony Stankus, a highly respected expert on scientific journals, focuses on the advantages to users—and ultimately society—of access to a good assortment of science journals, providing practical information for librarians on effectively managing their resources. He explains how to understand and manage the foreign publication situation by focusing on alternatives to expensive foreign journals and looking at international publishing patterns. In the final section of this vital new book, Stankus explores how technology and competition are improving today's science journals.

**Scientific Journals** encourages librarians to sharpen their strategic vision—to see the importance of science for U.S. competitiveness and the role that science journals play in this. Tactical thinking and ideas for promoting U.S. university press titles and Canadian journals instead of the most expensive European for-profit titles are also stressed. While not neglecting concerns about costs, irregular deliveries, and the complexity of check-in, this practical book identifies titles that have high quotability, attract the most U.S. papers, and have the broadest circulation base. Librarians will be pleased to find that some journals that are less costly can also be favorable to science clientele.

*"This is a wonderfully written scholarly work on a topic of keen interest to the profession. Stankus's 11 chapters on scientific journals are must reading for all professionals. While some of these articles have been previously published, together they provide an example that the scholar/librarian still lives."*

James M. Matarazzo, PhD, Simmons College, Graduate School of Library & Information Science, Boston, Massachusetts

## SELECTED CONTENTS

Introduction (*Barbara Lockett, RPI Libs.*) • **Theme One: Knowing Success Stories When We See Them and Realizing We Can Use Them to Our Advantage** • High Yields on an Expensive Investment in Science Journals: Career Histories of Known Undergraduate Users Ten Years Later • The Scientist Is Appointed an Editor: Adjusting the Journal Collection at Stages in a Client's Career • **Theme Two: What Do Shifts in World Science and World Publishing Mean for U.S. Librarians?** • The Rise of Eurojournals: Their Success Can Be Ours (*Tony Stankus and Kevin Rosseel*) • Asia's Other Sci-Tech Dragons: The International Publishing Patterns of Hong Kong, The People's Republic of China, Singapore, South Korea, and Taiwan • Greater Familiarity Will Not Breed Contempt: Canadian Scientific Journals as Economically and Professionally Attractive Outlets for U.S. Researchers and the Libraries That Serve Them • **Theme Three: Technology and Competition Are Improving Today's Science Journal** • Desk-Top Publishing and Camera-Ready Copy Science Journals • The Evolution of Science Journal Formats and Publishing Schedules • Index • *more*

(Supplement No. 6 to *The Serials Librarian*.) \$29.95 hard. ISBN: 0-86656-905-7. Available Winter 1990.

ALSO AVAILABLE . . .

## SCIENTIFIC JOURNALS

Issues in Library Selection and Management

Tony Stankus, MLS

*"All the papers represent thorough discussions of the topics covered . . . the study of the relationships between journals and scientists [is] most illuminating. . . . A convenient and concise collection of American thinking on scientific journals studies. . . . Highly readable."*

*Library Association Record*, Vol. 90, No. 10, Oct. 1988, p. 92

In the first anthology of this kind, Tony Stankus knowledgeably addresses the major issues involved in the collection of scientific journals. Science librarians, serials librarians, and acquisitions librarians—faced with the difficult task of selecting and de-selecting expensive scientific journals in the face of enormous faculty and budgetary pressures—need this valuable volume that focuses on the collection management process. If they are willing to examine the literature, librarians can learn to anticipate, teach, and control faculty demands for periodicals.

(Supplement No. 3 to *The Serials Librarian*.) \$29.95 hard. ISBN: 0-86656-616-3. 1988.

ORDER TODAY! 

For Fast Service, Call Our Toll-Free Number Today:  
1-800-3-HAWORTH (1-800-342-9678; 9am-5pm EST)  
(Good for US orders only)



THE HAWORTH PRESS, Inc., 10 Alice Street, Binghamton, New York 13904-1580

PAD90

# THE WILSON INDEXES

## When You Need an Answer Fast and it Has to be Right

Offering broad coverage, unparalleled accuracy, and unmatched currency, the Wilson Indexes are your key to important literature in business and law, science and technology, art, education, the humanities, the social sciences, and general reference.

Now you can search these renowned indexes in print, online, on CD-ROM, and on tape.

### BUSINESS AND SCIENCE & TECHNOLOGY

## Applied Science & Technology Index

"An up-to-date source of scientific and technical information for general science and technology collections."

—AMERICAN REFERENCE BOOKS ANNUAL

An invaluable research tool for researchers, scientists, technicians, engineers, students, and librarians, *Applied Science & Technology Index* is a subject index to 335 key periodicals in technology and the applied sciences, covering:

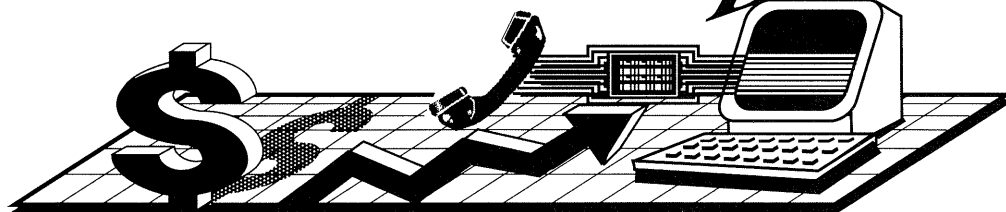
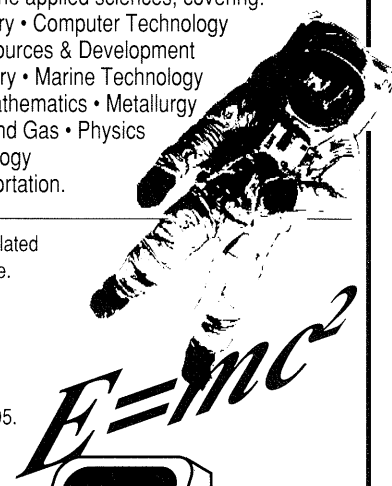
- Aeronautics & Space Science • Chemistry • Computer Technology
- Construction • Electronics • Energy Resources & Development
- Engineering • Food • Geology • Machinery • Marine Technology & Oceanography • Materials Science • Mathematics • Metallurgy
- Meteorology • Mineralogy • Petroleum and Gas • Physics
- Plastics • Robotics • Solid State Technology
- Telecommunications • Textiles • Transportation.

#### Availability

**In Print:** Eleven monthly issues cumulated quarterly; annual cumulative volume. Retrospective coverage from 1958 to date; sold on the service basis (periodical holdings).

#### Online, CD-ROM, and Tape:

Coverage from 10/83. CD-ROM annual subscription \$1,495.



## Business Periodicals Index

"The best index for business research."

—AMERICAN REFERENCE BOOKS ANNUAL

Equally accessible to business people, librarians, researchers, and students, *BPI* offers fast access to up-to-the-minute information on the latest trends as reported in 344 of today's leading business magazines, covering these and other areas:

- Accounting • Acquisitions & Mergers • Advertising • Banking • Building & Construction • Communications • Computers • Economics • Electronics
- Engineering • Finance & Investments • Government Regulations
- Industrial Relations • Insurance • International Business • Management
- Marketing • Oil & Gas • Personnel • Real Estate • Small Business • Taxation.

#### Availability

**In Print:** Eleven monthly issues with quarterly and annual cumulations; retrospective coverage from 1958 to date; sold on the service basis (periodical holdings).

#### Online, CD-ROM, and Tape:

Coverage from 7/82. CD-ROM annual subscription \$1,495.

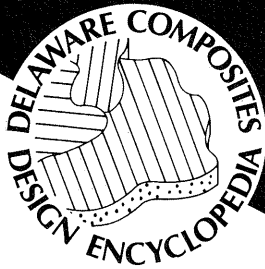
**To Order,** or for more information on these or any of the other Wilson Indexes, simply call toll-free: **1-800-367-6770**



# THE H. W. WILSON COMPANY

950 UNIVERSITY AVENUE, BRONX, NY 10452

## MAJOR NEW 6-VOLUME ENCYCLOPEDIA, PLUS INDEX



# Delaware Composites Design Encyclopedia

Compiled under the direction of the Center for Composite Materials, University of Delaware. *Reviewing Editors:* Leif A. Carlsson, Ph.D.; John W. Gillespie, Jr., Ph.D.

*"The University of Delaware has compiled its Composites Encyclopedia with the same high standards as the research for which its Center for Composites has long been known."*

*"In its new version . . . the content was revised and several new phases on advanced composites have been enlarged. The content is easy to understand and useful for engineers and designers in every field of engineering."*

Dr. Tsuyoshi Hayashi  
Councillor (First President)  
Japan Society for Composite Materials

### Volume 1 MECHANICAL BEHAVIOR AND PROPERTIES OF COMPOSITE MATERIALS

Authors: Dr. H. Thomas Hahn, The Pennsylvania State University; Dr. Carl Zweben, General Electric Company; Dr. Tsu-Wei Chou, University of Delaware

ISBN: 0-87762-684-7, 1989, 160 pages

### Volume 2 MICROMECHANICAL MATERIALS MODELING

Authors: Dr. James M. Whitney, Wright-Patterson Air Force Base; University of Dayton; Dr. Roy L. McCullough, University of Delaware

ISBN: 0-87762-699-5, 1990, 248 pages

### Volume 3 PROCESSING AND FABRICATION TECHNOLOGY

Authors: Michael G. Bader, University of Surrey, England; Wilburn Smith, DuPont; Allan B. Isham, Owens-Corning Fiberglas; Albert Rolston, Consultant; Arthur B. Metzner, University of Delaware

ISBN: 0-87762-701-0, 1990, 256 pages

### Volume 4 FAILURE ANALYSIS OF COMPOSITE MATERIALS

Authors: Peter W. R. Beaumont, Cambridge University, England; Jerold M. Schultz, University of Delaware; Klaus Friedrich, Technische Universität, Hamburg-Harburg, Germany

ISBN: 0-87762-702-9, 1990, 216 pages

### Volume 5 DESIGN STUDIES

Authors: Keith T. Kedward, Alcoa Defense Systems; James M. Whitney, Wright-Patterson Air Force Base; University of Dayton

ISBN: 0-87762-703-7, 1990, 260 pages

### Volume 6 TEST METHODS

Authors: R. Byron Pipes, University of Delaware; Robert A. Blake, Jr., ALCOA; J. W. Gillespie, Jr. and L. A. Carlsson, University of Delaware

ISBN: 0-87762-704-5, 1990, 170 pages

### INDEX FOR VOLUMES 1-6

ISBN: 0-87762-705-3, 1990

**Each 8 x 10 volume is case bound and Smythe sewn for years of reference use.**

Individual volumes **\$225 each**  
Entire 6-volume set, plus index **\$1275**



851 New Holland Ave., Box 3535  
Lancaster, PA 17604, U.S.A.

*Detailed brochures are available on each of these books.*  
Telephone: 1-800-233-9936 Fax: (717) 295-4538

**We're coming back  
to the West Coast**

# Computers in Libraries

**The 6th Annual  
Conference & Exhibition**

**'91**

**March 11 - 13, 1991**

*Preconference Workshops on Sunday, March 10*

**Hyatt Regency Oakland • Oakland, California**

---

**The only annual conference covering the full range  
of library computer technologies**

---

*Now including*

- *Integrated Online Systems*
- *Special Library Considerations*
- *CD-ROM Applications*

**For program information contact**

**KIM DEVAN**

**For information about exhibiting contact**

**HANNAH PRESTON**

---

**Meckler**

**11 Ferry Lane West, Westport, CT 06880  
TEL: (203) 226-6967 • FAX: (203) 454-5840**