FROM THE PRESIDENT

There have been a number of developments affecting IAMSLIC since the last Newsletter and I will mention some of them here.

Planning for the 1990 Conference in Seattle is progressing very well, even though Pam Mofield (Local Arrangements) has put aside some of the duties temporarily to give birth to her second son. Congratulations!

A Conference Hotel has been booked, field trips have been arranged, and the costs have been determined. Attendees will be happy to hear that cost increases have been kept to a minimum. We look forward to October in Seattle with pleasure.

We believe our efforts to persuade the authorities of the State of Oregon to name the new library at the Hatfield Marine Science Center in honor of Marilyn Guin are going to be successful. The dedication of the building will take place on July 4. Eleanor Ulhinger will be attending and will represent IAMSLIC very well.

Cecile Thiery (Past President), Michael Gomez, Eirikur Einarsen, and Allen Varley were some IAMSLIC members who attended the EURASLIC meeting in Paris April 26 and 27. A small majority of EURASLIC adopted a proposal to become a section of IAMSLIC under special conditions. A working group of 8 has formed to prepare proposals for presentation at our October Conference. The librarians from the freshwater community are willing to participate on condition they are clearly accepted and acknowledged in the organization's name and bylaws. This would certainly have an impact on IAMSLIC and will be the subject of discussion at the Conference. I want to assure all members that no decisions have been made, nor will they be made without full input from all who wish to contribute.

(continued on page two)
FROM THE PRESIDENT
(continued from page one)

The Working Group on IAMSLIC structure, chaired by Carol Winn has not yet reported to the Executive on any possible changes to name, structure, or bylaws which may be needed in order for us to enter cooperative ventures or contracts with such agencies as ICC. Their deliberations may also be affected by the news from the working group mentioned in the paragraph above. Carol Winn’s Working Group has indicated they will be attaching their report to this Newsletter as it is still in preparation. Please read it with care! Be prepared to discuss it in the next Newsletter and in October as it will perhaps be the basis of IAMSLIC’s future.

Kristen Metzger has been in contact with a Russian marine scientist who has asked for information, and who wants to present a paper in October. She has provided him with appropriate details and has passed his abstract to Kay Hale for inclusion on the program. IAMSLIC will welcome his contribution, and his presence will be a physical demonstration of the theme of “Breaking Down the Barriers to Communication”, especially after our disappointment last year that the two Russians who were scheduled to speak in Bermuda were unable to come.

A member of a consulting company here is going to Belize on a contract. As luck is in our favor, he is going directly to the marine station there! He is taking an application, a copy of the bylaws and a copy of the 1988 Proceedings for the librarian. Perhaps we will soon hear that Belize is a member.

It has been an interesting year so far, and I look forward to the next part, encouraged by your support for IAMSLIC and its goals. We are a vital, cooperative, professional, helpful and friendly group, and I hope we can demonstrate this to our European colleagues; so much so they will join us to make an even stronger organization, dedicated to sharing our resources and our expertise on a broader geographic scale.

Have safe and happy summer holidays. See you in Seattle!

Sharon Thomson

GUIDE TO NASA/NOAA ONLINE OCEANOGRAPHIC INVENTORIES

The above titled guide to oceanographic and related data inventories was recently published by the University of Rhode Island, Graduate School of Oceanography, 110 Watkins Building, Narragansett, RI 02882 USA (401-792-6939)

Written by Richard Chinman et al., the guide covers eleven data inventories:

- NASA Master Directory (NMD)
- Jet Propulsion Laboratory
- NASA Ocean Data Systems (JPL/NODS)
- NODC Ocean Science Information Exchange (NOSIE)
- Pilot Land Data System (PLDS)
- SAR Data Catalog System (SDCS)
- University of Rhode Island AVHRR Inventory (URIAI)
- Electronic Catalog System (ECS)
- Alaska LANDSAT Inventory (ALI)
- NASA Climate Data System (NCDS)
- Global Coastal Zone Color Scanner (CZCS)
- National Snow and Ice Data Center (NSIDC)

Inventory descriptions cover contents of each oceanographic data inventory, access procedures (including access via dialup, Telemail, Telenet, Internet, SPAN, etc), and contact person. The guide includes an index to ocean parameters e.g. currents, depth, height, ice, temperature, radiance, wind.

CURRENT IAMSLIC MEMBERS
(as of 10 May 1990)

TOTAL NUMBER OF IAMSLIC MEMBERS 208

BY TYPE OF MEMBERSHIP:

Personal 128
Institutional 80

BY GEOGRAPHIC REGION:

North America 152
South America 2
Central America 1
Europe 24
Caribbean 2
Asia 7
Near East 2
Africa 5
Australia & New Zealand 7
South Pacific 6
IAMSLIC CONFERENCE '90

Seattle, Washington, USA 1-5 October 1990

The deadline for submission of papers for Conference '90 has come and gone but there are still a few open slots in the program. I will consider additional presentations until mid-June. Please send your abstracts to me as soon as possible.

Conference sessions are shaping up mainly around international problems, technological barriers, bibliographical issues, and natural disasters. Presenters from afar will be coming from Kenya, Fiji, Greece, Malta, the Philippines, and Senegal. CD-ROMS are very high on our agenda with papers on U.S. Government CD-ROM products, including experiences in the U.S. Geological Survey Library, and CD-ROMS in general which deal with aquatic information. Some specific bibliographic (and possibly numerical) databases will be described, as well as problems of standards and networking. Better online and CD-ROM search strategies, guides for library users, Interlibrary Loan barriers, and difficulties with "grey" or nontraditional literature will be discussed.

The Pre-Conference Workshop this year will deal with preservation of materials. A former Director of IOC (the International Oceanographic Commission, UNESCO) has been invited to deliver the keynote address. A conference reception on registration night, a choice of field trips, and a banquet on the water are all in the plans.

I'm told that Seattle in early October is ideal! I hope we'll have a great turnout.

Kay Hale, Program Convener
RSMAS Library
University of Miami
4600 Rickenbacker Causeway
Miami, Florida 33149
Tel: 305-360-8021
Fax: 305-361-9306
ScienceNet: RSMAS.LIBRARY

---

IAMSLIC COMMITTEE ON INTERNATIONAL COOPERATION

Report for 1988-1989

[Editor's note: This report was inadvertently cut short in the last newsletter. The complete report follows.]

1. Working with the Membership Committee, French & Spanish language membership brochures were produced (Boyle). Members continued to pursue assignments to contribute to regional recruitment of new IAMSLIC members. (Einarsson, Thiery, et al.)

2. The Committee continued to encourage the development and formation of well-integrated regional & national structures within the IAMSLIC framework. Members (Einarsson, Gomez, Simpson, Temprosa, Thiery) participated in meetings in Europe, Scandinavia, and SE Asia.

3. A CDS-ISIS Working Group was formed (McConnell, Moritz, Temprosa). A Working Group member contributed a substantial article on CDS-ISIS to the IAMSLIC newsletter (McConnell).

4. No progress was made on the survey of members expertise.

5. Two CIC members contributed actively to the IAMSLIC pre-Conference workshop (Beardsley, Moritz).

6. The CIC continued to serve as a clearinghouse for information on international cooperation (Moritz, et al.).

7. Members continued to participate in various person-to-person (or institution-to-institution) efforts to assist in training or support to providers of marine science information in developing countries (Boyle, Thiery, et al.)
FOCUS ON CD-ROM

IMAGERY CD-ROMS FOR U.S. EAST COAST EXCLUSIVE ECONOMIC ZONE

The USGS-NOAA Joint Office for Mapping and Research (JOMAR) has recently released two CD-ROMs compiling sea-floor imagery of the US Atlantic continental margin extending 200 nautical miles seaward from the shore. The images were mapped with the UK’s Institute of Oceanographic Sciences’ GLORIA (Geologic Long-Range Inclined Asdic) side-scan sonar. Images are displayed with IMVIS or IMDISP image display software. Both software are provided; IMVIS provides an image-oriented interface for accessing the images and a higher-resolution display of the images.

The East Coast GLORIA disks contain the following:

- 21 image files representing 2-degree by 2-degree (50 meters resolution) seafloor sections plus north and south area mosaics (200 meters resolution);
- One-twelfth sampled files of the image files;
- Original bathymetric data files digitized from NOAA’s National Oceanic Service (NOS) Bathymetric Map Series of 1:250,000 and 1:1,000,000 scale (metric bathymetric contours with 250-m contour interval; 50 meters minimum resolution);
- Processed 6 hour datafiles used in creating the 2-degree by 2-degree seafloor sections plus north and south area mosaics.

The East Coast GLORIA CD-ROMs run on the full range of IBM compatible microcomputers; for efficiency, an 8 MHz 80286 microcomputer or above is recommended. Viewing images requires a microcomputer with VGA or EGA display cards. An EGA monitor and display card is the minimum display system that can be used; however, the vastly superior IMVIS image-oriented visual interface for accessing the higher-resolution images requires the Orchid Designer800 or Prodesigner VGA cards or the Paradise Extended VGA card.

JOMAR
915 National Center
Reston Virginia 22092 USA
(703)648-6524 ©

BIBLIOGRAPHIC UTILITY VS. CD-ROM CATALOGING RECORDS?

Model worksheets for calculating costs to assist in selecting an automated cataloging system were presented in:

Cost comparisons between bibliographic utilities and CD-ROM-based cataloging systems
by Dolly Chao
LIBRARY HI TECH 7(3):49-52, 1989

The author considered three major cost areas: purchase and one-time costs, ongoing costs, and staff resource costs.

PACIFIC OCEAN TEMPERATURE/SALINITY DATA ON COMPACT DISK

A compact disk containing over 1.3 million Pacific Ocean temperature-depth and salinity-depth profiles taken from 1900 - 1988 is available from the US National Oceanographic Data Center. Most of the profiles were taken by bottle casts and mechanical and expendable bathythermographs; a smaller number were taken by other means. The data on disk encompasses the entire Pacific Ocean basin and is accessed by user-friendly menu-driven software. Before plotting profiles, the menu software is used to select WMO ten-degree square(s), data types desired for those square(s), inclusive dates, years, months for all years, vessel, NODC cruise number, and country of origin. The profiles can be downloaded to diskette; data is in a simple ASCII file format usable by a wide range of software and programming languages. The compact disk is available free; contact:

National Oceanographic Data Center
User Services Branch
NOAA/NESDIS E/OC21
Washington DC 20235 USA
MULTI-USER ACCESS TO CD-ROMS VIA VAX COMPUTERS?

Access to DOS-based CD-ROM applications from a VAX environment is being explored by Arthur Belanger at Yale University School of Medicine (address below). Belanger recently reported on his progress on the PACS-L Forum (see IAMSIC Newsletter #33, p2), a summary follows. Logicraft (address below) markets CD-WARE, a 80386-based CD-ROM server which attaches to an Ethernet network and communicates with a VAX using XNS protocol. Logicraft provides network software for the VAX and the CD-WARE server. Belanger tested a CD-WARE unit with 2 internal CD-ROM drives configured for 4 simultaneous users. Three CD-ROM applications were tested and worked (Compact Library Aids, Micromedex, Silver Platter's Psych-Lit). For the last two, four users simultaneously accessed the CD-ROMs with little performance degradation; Compact Library Aids does not support multiuser access (no NetBios support).

CD-WARE installed easily and put minimal load on the VAX (8800). A 45 minute session consumed only 9.5 seconds of VAX CPU time. Belanger reported that the only major impact was on the Ethernet network. Since the CD-WARE CD-ROM server has no hard disk, the CD-ROM application software is stored on the VAX. Starting up a CD-ROM application requires that the CD-ROM search software be loaded from the VAX into the CD-WARE server's memory for subsequent execution; this causes spikes of network activity using 40% of the Ethernet's bandwidth. After loading, running the CD-ROM generated network traffic comparable to a couple of terminals on a terminal server. A server can be configured with a hard disk to minimize network traffic from startup of the application.

Belanger reported being fairly impressed with CD-WARE but has some reservations. CD-WARE is designed to provide access from DEC VTxxx terminals; mapping of the VT keyboards requires adjustment by users. Belanger commented that a serious problem awaits those users dialing into the VAX from PCs and Macintoshes using terminal emulation software. This creates a situation requiring double keyboard mapping: from enduser (PC or Macintosh) to VTxxx to the CD-ROM microcomputer (386-based server). Belanger commented that this is not trivial and the system did not work for those users during the short period he had CD-WARE on loan. Logicraft has a keyboard utility software (Reflection) that solves the problem; however Belanger commented that remapping has to be done for each terminal emulation package that one expects to support. Since users will have a variety of terminal emulator software, Belanger estimated that he has to support no less than 10 software.

Belanger advises that Logicraft sells overpriced CD-ROM drives and one can do better in the open market. Belanger closed his report by stating: "At this point, it seems likely that we will purchase a CD server from Logicraft and solve the problems as they arise."

Arthur Belanger, Senior Research Programmer
Biomedical Computing Unit
Yale University School of Medicine
333 Cedar St. B-307
New Haven, CT 06510 USA
(203) 785-4566 ☉
Bitnet: belange@yaledmed
Logicraft
22 Cotton Rd
Nashua NH 03063 USA
(603)880-0300 ☉
Fax: (603)880-7229
TLX/TWX: 709361
also 2 Executive Circle
Irvine CA 92714 USA
(714)261-0481 ☉

SALVAGING A FLOPPY DISK

Advice for salvaging floppy disks damaged by spilled substances was offered in "Those (in)destructible disks; or, another myth exploded" by Larry N. Osborne (LIBRARY HI TECH 7(3):7-10, 1989). Based on actual tests with Coca-cola, coffee with cream and sugar, hand cream, beer, cat urine, etc., the author advised following these steps:

1. Mark the top side of the disk near the center hole with a non-water-soluble pen.
2. Slit an edge of the disk's plastic jacket while pushing the disk away from that edge by the side of the center hole.
3. Rinse off substance with warm running water.
4. Wash off grease with mild soap and then rinse well.
5. Riot and air dry the disk.
6. Slit open a new disk's jacket and replace the disk with the cleaned disk (put the disk in right-side up).
7. Copy the salvaged files to a new disk.
8. Use head-cleaning product to clean the floppy disk drive."
MONTEREY BAY REGION
BATHYMETRY AND SELECTED
GEOSCIENCE DATA

The USGS-NOAA Joint Office for Mapping and Research (JOMAR) recently released the Monterey Bay Region CD-ROM. The Monterey Bay Region CD-ROM contains several bathymetric and geoscience data files.

BATHYMETRY: high-resolution sub-sampled 250 Meter "gridded" bathymetric data for the Monterey Canyon from NOAA's SeaBeam and GLORIA mapping programs. SeaBeam surveys were completed in 1985-1988 utilizing the NOAA Ships Surveyor, Discoverer, and Davidson; the GLORIA data were collected during the summer of 1984 and are part of the EEZ survey off California, Oregon, and Washington.

DLE: US Geo Data 1:100,000-scale Digital Line Graph (DLG) data files Prepared from the USGS 1:100,000-scale map series, from Bureau of Land Management editions of 1:100,000-scale maps, or from USGS archival compilation materials, these files are in 30-minute x 30-minute data files. Each data file may contain the following data layers: Hydrography; Transportation (including separate files for roads, railroads, pipelines, power lines); Hypsography; Boundaries; Public Land Survey.

DEM: four 1-degree digital elevation models (DEM) data for the central California region surrounding the Monterey Bay. This data is derived from 1:250,000-scale map contour plates that have been digitized.

NAPP: three digitized National Aerial Photography Program (NAPP) scenes of Monterey and the central Monterey Bay area. Each scene is digitized into three eight-bit files, representing red, green, and blue bands. With the supplied IMVIS program, color-composite images at 2 meter pixel ground resolution can be viewed.

SLAR: five Side-Looking Airborne Radar (SLAR) image data files for the California Coast from approximately 5 miles north to 4 north of the Golden Gate bridge to a point on the coast approximately 43 miles southeast of Monterey. SLAR imagery provides the geologist and other earth scientists with enhanced views of geologic structures, compared to either aerial photography or Landsat imagery.

VICES: A prototype geodetic survey control point location database being developed by the National Geodetic Survey. VICES provides a graphically-based user interface to NGS geodetic data as well as an index of various maps produced by the USGS. VICES itself consumes 550kb of RAM memory and requires a hard disk and a math-coprocessing chip. VICES works with CGA, EGA, and VGA color graphics. Pointing devices, such as digitizers, can be accommodated.

Monterey Bay Region images can be displayed with IMVIS or IMDISP image display software; both software are provided. The Monterey Bay Region CDROM runs on the full range of IBM compatible microcomputers; for efficiency, an 8 MHz 80286 microcomputer or above is recommended. Image display requires a microcomputer with VGA or EGA display cards with an EGA monitor and display card being the minimum display system that can be used. However, the higher-resolution IMVIS image display software requires the Orchid Designer8000 or Prodesigner VGA cards or the Paradise Extended VGA card.

National Information Services Corporation
Suite 6, Wyman Towers
3100 St Paul Street
Baltimore MD 21218 USA
(301)243-0797 or (301)243-0982

JOMAR
915 National Center
Reston, Virginia 22092 USA
(703) 648-6524 or (301) 443-8536
POLAR BRIGHTNESS / TEMPERATURE DATA ON CD-ROM

SSM/I brightness/temperature data for North and Sough Polargrids for July 1987 - July 1988 is available on four compact disks. Supplied software will extract brightness temperature grid files, calculate sea ice concentration from the data, and display the image files onscreen. An IBM compatible microcomputer is required along with 640K RAM, hard disk,EGA or VGA color graphics, and Microsoft CDROM Extension software. A math coprocessor will extract datafiles faster. Available for free, contact:

National Snow & Ice Data Center
CIRES
Box 449
University of Colorado
Boulder, Colorado 80309 USA
(303)492-1834 or -5171
Fax:(303)492-2468
Telemail: [NSIDC/OMNET] MAIL/USA
(Attn: Data Request Services)

Requests from outside USA may require NSIDC management approval.

COMMON KNOWLEDGE

Common Knowledge is a nonprofit organization chartered as a public domain utility. Common Knowledge believes that knowledge should be accessible to all people, and has as its goal the building of publicy owned mechanisms to access information. Its first product, the Universal Index Version 1.0, consists of a Library of Congress catalog of English language works published from 1984 through 1988 (approx. 432,000 records, 625 MB, and 10 minutes of tutorial sound), available to libraries at nominal cost. The Universal Index will run on all BiblioFile hardware with 640K.

Common Knowledge would like to produce another CD-ROM with self-contained DOS and Mac search software, possibly for free distribution at an American Library Association conference. If you know of domain information in electronic form (for example, bibliographic or other types of databases, lists of reference questions answered, specialized subject bibliographies, etc.) that is available for such a project, contact:

Mary Engle
University of California/DLA
300 Lakeside Drive, 8th floor
Oakland, CA 94612-3550 USA
(415) 987-0563
Bitnet: meeur@uccmvs@umail
Internet: engel@cmsa.berkeley.edu

National Information Services Corporation
Suite 6, Wyman Towers
3100 St Paul Street
Baltimore MD 21218 USA
(301)243-0797
Fax: (301)243-0982.
NEW PIONEER CD-ROM CHANGER ALLEVIATES DISK SHUFFLING

The Pioneer CD-ROM Changer drive (DRM-600) accesses 6 compact disks in one removable front-loading magazine. The DRM-600 changer accesses one disk at a time so it is suitable for single-user CD-ROM workstations with a variety of CD-ROM products. The DRM-600 will not access two or more compact disks simultaneously like Cambridge Scientific Abstracts' Multidisc drive.

The DRM-600 changer can be configured as six separate logical devices or as a single device with up to six disks. When configured as six devices, an additional Pioneer DRM-600 drive can be daisychained for accessing up to twelve disks. No more compact disk shuffling!

When configured as a single device, a Pioneer utility program selects the appropriate disk; by daisychaining additional Pioneer DRM-600 drives, up to seven drives and 42 disks can be accessed. Disk change time is 7 seconds maximum.

The Pioneer DRM-600 CD-ROM Changer is available from Pioneer dealers. Updata Publications (a CD-ROM distributor located at 1746 Westwood Blvd, Los Angeles, CA 90024 USA; phone (213)474-5900) sells the DRM-600 for US$1295; the necessary CD-ROM Extensions software costs $100 (IBM), $300 (IBM PS/2), or $45 (Apple). Updata can provide product and technical information on the Changer.
ASFA-3: Aquatic Pollution and Environmental Quality

Pollution has always been a major category in ASFA. When in 1978 ASFA underwent a split of on the basis of biological versus non-biological subject areas, it was decided that the Pollution section should be included in both ASFA parts. Although this amounted to duplication of some material between the two ASFA journals, aquatic pollution information was clearly vital to both the biology/fisheries community on the one hand, as well as non-biological specialists on the other, e.g. geochemists, and the mineral/oil and gas industries.

The literature on aquatic pollution continued to grow during the 1980's, reflecting research on the environmental issues of our time: radioactive waste disposal, oil spills, acid rain, plastic debris, eutrophication, pesticides, the greenhouse effect.

In June 1990 the ASFA Advisory Board considered "ASFA for the 1990's", investigating whether any new approaches to the ASFA scope or products were required. It was agreed that aquatic pollution and environmental quality comprises a discrete topic that could be separated out from ASFA-1 and -2 and published separately as ASFA-3. This decision would reduce overlap, while allowing users to select the most appropriate combination of the three ASFA parts, according to their needs.

For the sake of continuity in the database, it was felt that the subject category codes for ASFA-3 should remain as before in ASFA-1. This decision would reduce overlap, while allowing users to select the most appropriate combination of the three ASFA parts, a Papers on waste disposal and dumping in natural waters. Sewage treatment, air pollution and soil pollution where clearly related with pollution of natural waters.

Excluded are studies of water supply, sludge, wastewater treatment, drinking water, etc. where not directly related to the natural aquatic environment.

1502 Methods and instruments
Analytical and detection methods and instruments, pollution monitoring and surveillance methodology, including chemical fingerprinting and use of bioindicators.

1503 Characteristics, behavior and fate
Physical/chemical studies of aquatic pollution, including surveys, baseline studies, distribution, dispersion, geochemical cycling, weathering, degradation etc.

1504 Effects on organisms
Effects of pollution, including thermal pollution, on the biology of aquatic organisms and communities and on living resources. Studies on the level and toxicity of pollutants in organisms.

1505 Prevention and control
Pollution prevention and control measures, including remedial action, clean-up, education, legislation, and national and international policy.

1521 Mechanical and natural environmental changes
Impact of man-made changes such as dams, barriers, dredging, construction and dumping. Causes and effects of natural physical and chemical changes in the aquatic environment, including climatic factors, natural disasters, geochemical changes, water flow, storms, wave action, tides and ice; effects of storms, monsoons, flooding, etc. on waters, substrates and organisms.

1522 Protective measures and control
Protective measures against environmental changes, including disasters, geochemical changes, water flow, storms, wave action, tides and ice; effects of storms, monsoons, flooding, etc. on waters, substrates and organisms, wildlife management and recreation.

1524 Public health, medicines and dangerous organisms
Medical aspects and hazards pertaining to natural aquatic environments, including malaria, schistosomiasis, etc.; food poisoning due to aquatic organisms; human pathogens, biological toxins and dangerous organisms.

ASFA-3 contains approximately 600 records per issue and is published bimonthly, with subject, taxonomic and geographic indexes.

For further information or a sample issue contact:

Cambridge Scientific Abstracts
7200 Wisconsin Avenue
Bethesda, MD 20814 USA
(301) 961-6741 ©
RESPONSE TO

"LET THE ONLINE SEARCHER BEWARE"

(published in the March 1990 issue of the IAMSPLIC Newsletter Number 34, pp. 14-15)

Michael Gomez has performed a good service to users of marine science databases by identifying and calling to our attention some difficulties in locating citations of articles from Journal of Geophysical Research, Section C, in several databases (IAMSPLIC Newsletter, March 1990, pp. 14-15). Numerous studies in the past, some concerned with marine science information and some with other fields, lend credence to his warning, "let the online searcher beware", especially if you want comprehensive coverage of a topic.

Our answer is emphatically "yes" to Michael's question about whether IAMSPLIC should lobby the ASFA Advisory Board. Keeping in touch with the preferences of the users of ASFA is very important and not always easy to achieve. It is helpful to hear the opinions of individual users, but the always can be some question as to how representative such opinions are. That is one good reason why the collective opinions of groups such as IAMSPLIC, arrived at after thorough consideration, are so significant. Reinforcing the importance of the involvement of IAMSPLIC in debates about ASFA is the fact that end users, or organizations representing them, only occasionally express any concerns directly to those involved in the production of ASFA. Probably not since the mid-1960's, when the Scientific Committee for Oceanic Research (SCOR) had a working group to examine the needs for abstracting and indexing services, any high-level international scientific group taken a direct interest.

We really must take issue with our colleague, Jon Sears, for implying that the ASFA Advisory Board does not have the integrity of ASFA and the good of its users topmost in mind. The Board has struggled for twenty years to provide the best possible service for a small scientific field with limited resources. Perhaps he did not intend Michael Gomez to include an electronic mail message in a published article in the IAMSPLIC Newsletter (March 1990, p. 14), but it doesn't matter whether one makes such insinuations to one or a thousand readers.

A serious problem arose in 1986, when we (and other users) noted that papers in certain issues of key journals had not been abstracted in ASFA. We try continuously to ensure that all of the serials on the ASFA Monitoring List are covered, but this is by its nature a difficult undertaking in a decentralized international system. A variety of factors, mainly financial, caused the number of abstracts appearing in 1986, 1987, and 1988 to drop to 23,058, 22,326, and 23,710 respectively, instead of the expected 30,000 or more each year. In consequence, a backlog of input awaiting processing by the publisher built up. Readers who are interested in further details about the backlog and its causes are also referred to an article in Naga, the ICARMA quarterly.

Freeman, Robert R.
"Bibliographic Coverage of the Growing Fisheries Literature in ASFA,
Naga, 11(1), p.5
(Jan. 1988)

The Board regards the elimination of this backlog and the timely handling of current input as matters of urgency. It was in this context that the Board debated at length a proposal for placing some records in the electronic database, but not in the printed journals, at its meeting in June 1989. In the end the Board decided that the interests of those users who do not yet have access to computer searching of ASFA must be protected. These users would be the losers if any records go only into the database.

Placing records only in the database is only a partial solution to the problem of a backlog. As the representatives of the publisher themselves pointed out, all the costs of abstracting, indexing, editing, data entry, and data processing are still incurred. Only printing and distribution costs are saved.

At the same meeting the Board stressed once again its concern that core journals should be given high priority for inclusion in ASFA. Some representatives presented specific examples of articles of marginal relevance that had been abstracted in ASFA while specific core journals were missing. Those considered marginal were principally items of short-lived news value from trade journals.

The Advisory Board and the U.N. sponsor agencies of ASFA took positive actions to overcome the backlog and improve services to users. Both FAO and IOC allocated additional funds to the support of ASFA. This additional support brought production to one of its highest levels in 1989 (we hope you have noticed those large issues of ASFA). In 1990 we have planned and contracted for 36,600 unique abstracts, the highest number ever, as a one-time effort to return as near as possible to current coverage. At the Board meeting the publisher agreed not to make unilateral reductions in the number of abstracts. In addition to these steps, the Board approved two new printed journals, one to bring together all abstracts on Aquatic Pollution and Environmental Quality, the other to cover the new field of Marine Biotechnology.

Robert Freeman
Allen Varley
Heather Cameron
Members of the ASFA Advisory Board for FAO
**BACTERIAL TAXONOMY & GENETICS BULLETIN BOARD**

The TAXONOMIC REFERENCE FILE bulletin board service provides electronic mail and conferences, directories, software, and databases related to bacterial taxonomy and genetic sequencing. Available for free access and managed by BIOSIS (Biological Abstracts), TAXONOMIC REFERENCE FILE provides access to the following databases:

- **Name File**: over 12,500 bacterial names with synonyms, authorities and references. AKA BIOSIS REGISTER OF BACTERIAL NOMENCLATURE.

- **Hierarchy File**: bacterial taxonomic hierarchies including placement of names in hierarchies used in the 7th and 8th editions of Bergey’s Manual of Determinative Bacteriology. AKA BIOSIS REGISTER OF BACTERIAL NOMENCLATURE.

- **Culture Collection Database**: name, acronym, address and country information on over 150 microbial culture collections around the world.

- **Bacillus Genetic Stock Center**: holdings of Ohio State University’s collection of Bacillus strains including references and important alleles.

- **Listing of Molecular Biology Databases**: resources in molecular biology compiled at Los Alamos National Laboratory. Extremely valuable resource when looking for molecular biology data.

- **Compilation of Small RNA Sequences**: sequence data for small RNA molecules, i.e., those not involved in protein synthesis.

- **Small Ribosomal Subunit RNA Sequence Compilation**: alignment of nucleotide sequences for optimal homology with indications of postulated secondary structure.

- **Berlin RNA Databank**: ribosomal RNA subunit sequences.

- **Plasmid Prefix Registry**: prefixes of published plasmids used as a resource by editors of biology journals to insure that a new plasmid name is unique.

- **SIGPEP**: signal peptide and 10 additional residues from mature peptide chains.

- **tRNA Compilation**: tRNA nucleotide and gene sequences, literature citations, sequence alignments.

- **Iowa State Pattee/Staphylococcus Genetic Stock Center (ISP)**: listing of bacterial strains held in the ISP collection.

TAXONOMIC REFERENCE FILE also provides downloadable newsletters, statistical and genetic sequence analysis software. Users can access the bulletin board service from noon to 8am Monday through Friday and 24 hours Sat & Sun. To access the TAXONOMIC REFERENCE FILE databases and bulletin board, call 215-972-6759 at 300, 1200, or 2400 baud with modems set for 8 data bits, no parity, and one stop bit. Call Bulletin Board Manager - Bob Howey at 215-587-4917 ☎️ for more information. ☐
ACADEMIC LIBRARIES GIVEN GRANTS FROM APPLE

The Apple Library of Tomorrow (ALOT) program makes grants to libraries for innovative research projects that will benefit various segments of the community. The Apple Library received 70 proposals from college and university libraries and media centers around the world proposing a diverse range of projects for the higher education segment of the ALOT grant program. Once again, due to the high quality of so many of the proposals, it was a very difficult decision. Apple is very proud to announce the libraries chosen as this year's Apple Library of Tomorrow sites in the higher education category.

University of Alaska, Fairbanks. Alaska & Polar Regions Department and the Elmer E. Rasmuson Library. Project Jukebox. Archiving and providing access to recordings in oral history archives is a problem that can be solved through a technology involving digital recording and data compression. A Macintosh IIX, magneto-optic storage device, HyperCard, and MacRecorder will be used to experiment with interfaces, storage and access strategies for the Oral History Program at Rasmuson Library. Remote sites will be in Valdez and Barrow, Alaska.

University of Wisconsin, River Falls. Textbook Library. Mac-Textbook is an inhouse system that will be enhanced with a group of new modules to allow for easy file transfer between the Macintosh and the OCLC LS2000 system, serve as an interface for the patron using the same system, and will interface with the Honeywell mainframe in the Administrative Center. In addition, other enhancements will facilitate acquisitions, inventory, and database backup.

Washington State University, Pullman. The Systems Office is proposing a new approach to library user education using a concept called Metaphorical Puzzles. This was developed at University of Michigan in 1986. Using basic facets of game theory and game design, these exercises are intended to enhance the user's comprehension of the fundamental principles of information science. A control group will be taught using standard education principles, and the test group will be using the metaphorical puzzles.

Yale University, New Haven, Connecticut. Chemistry Library. The ChemistUs Crystal Ball is a joint project with the Systems Office to develop an icon-based access method, modeled on a chemical reaction pathway. It will provide chemists an integrated vision of electronic information including bibliographic databases, online handbooks, electronic bulletin boards, electronic mail, and locally mounted crystallographic databases.

These proposals reflected the intense desire of librarians to make their libraries the nerve center for campus communities and to help scholars prevail in a world where access to information will be the key to success. Computers can play an important role in this educational process and we were impressed at the creativeoative ideas expressed by for making this happen with Apple technology.

Libraries can keep posted about these projects and future grant cycles through the Apple Library Users Group Newsletter. To subscribe to this free, quarterly publication, please write or call and your name will be added to the user group of over 16,000 Apple-using librarians.

Deadlines for other ALOT proposals are as follows:


For additional information, please contact:

Steve Cisler or Monica Ertel
Apple Computer, Inc.
Apple Library of Tomorrow Program
10381 Bandley Drive MS SC
Cupertino, CA 95014 U.S.A.

CONSLINK

The Smithsonian Institution (US) is involved in conservation related education and research projects world-wide. They have established CONSLINK, a BITNET based electronic conference and bulletin board to improve communication between individuals and institutions around the world. Covering topics of BIOLOGICAL CONSERVATION, CONSLINK will consist of: dates of conferences, symposia, and workshops; new publications; grants and positions available.

For more information about CONSLINK, e-mail or snail-mail to:

CONSLINK
c/o Michael Stuewe
Conservation and Research Center
National Zoological Park
Smithsonian Institution
Front Royal, VA 22630 USA
BITNET:NZFEM001@SIVM
U.S. POLAR BIBLIOGRAPHICAL INFORMATION WORKING GROUP MEETING

March 2, 1990, Anchorage, Alaska.
(reprinted from Omnet ScienceNet POLAR.LIT bulletin board)

The purpose of this meeting was to assemble the U.S. providers of polar bibliographical information to assess progress and plan for the near future of the POLARPHAC Project and other elements of the U.S. Polar Bibliographical Information System funded. The CD-ROM product to be mastered by WLN will contain a single file comprising both monographic and serial records. It will be ready for production in April and will be demonstrated at the 13th Polar Libraries Colloquy in June, 1990. The monographic component will be downloaded from WLN [with components from OCLC and RLIN] and will contain polar collections and/or entire library holdings of major Alaskan libraries, Dartmouth College Library and the Institute of Arctic and Alpine Research at the University of Colorado. The serial component will contain several thousand titles with holdings from 38 polar-oriented libraries worldwide. Future updates will expand the serial holdings, and will also add monographic records from the Arctic Environmental Information Data Center (AEIDC), World Data Center A for Glaciology, and Byrd Polar Research Center.

There was a short discussion of future resource sharing and possibilities of distributed responsibility for indexing. This could be done on the basis of subject or geographic area, or document type. A standardized format is deemed essential. While each information provider has a good sense of what his/her collection emphasizes, it was agreed that comparison of holdings and negotiation of a plan for cooperative indexing must wait until all of the CD-ROM databases are available for assessment.

A status report on the Arctic Environmental Data Directory (AEDD) and Arctic Data Interactive (ADI) Project of the USGS was read and distributed. ADI will be demonstrated at the 13th Polar Libraries Colloquy. It was mentioned that the Earth Science Data Directory, of which AEDD is a subset, is already available on CD-ROM with several other USGS files, through OCLC.

The group was updated on the Canadian Polar Information System (CPIS). Several studies have been completed in connection with this proposed system, and copies were available. The issues of organizational structure of a CPIS and subject and geographic access methods for a CPIS are addressed in these studies; they could provide valuable guidelines for the U.S. system.

Coordination of U.S. polar bibliographical information activities with other relevant activities through NSC, USGS, ARCUS, CONRIM, and IAMSLIC was addressed. At this point in time it is a matter of keeping open communications with these groups with an eye to cooperation wherever possible. The United States Arctic Research Plan, Biennial Revision: 1990-91 was discussed, particularly in relation to its mention of data and information activities. It is published in the Fall 1989 issue of Arctic Research of the United States.

DO YOU HAVE?

Do you have a duplicate copy of the following:

| CALIFORNIA WATER ATLAS  
| State of California, 1978  
| (Out of print)  

If so, please send it to:
Karen Hamilton, Librarian
Point Reyes Bird Observatory
4990 Shoreline Highway
Stinson Beach, CA 94970

DIRECTORY OF BULLETIN BOARD SYSTEMS IN LIBRARIES

The second edition of the American Society for Information Science's "Directory of Electronic Bulletin Board Systems in Libraries and Related Organizations" is being compiled. The first edition was distributed through bulletin board systems and on floppy disk. The Directory is downloadable from the University of Minnesota Libraries BBS at (612) 624-4318 as the file "BBLIST" and it is "File Requestable" via the FidoNET as DBGLIST.ZIP from 1:262:32.

Audrey N. Grosh, the compiler, needs assistance in locating BBS operating in worldwide libraries, universities, colleges, public and private schools, museums, civic or cultural organizations.

Please send any contact information to Grosh via Bitnet at A-GROS@UMINN1 or via Internet at A-GROS@VM1.SPCS.UMN.EDU or send a message via above FidoNET via HIGH-ED or CD-ROM echo. Grosh's telephone number is (612) 624-7038 and her address is University of Minnesota Libraries, S-98 Wilson, 309 19th Ave. So., Minneapolis, MN 55455 USA.
"Promotion of the Use of Nordic Online Databases" by Elisabet Mickos appeared in INFORMEDIARY 3(2):91-96, November 1989. Mickos writes about intergovernmental cooperation and production of online information in Nordic countries. NORDINFO (Nordic Council for Scientific Information and Research Libraries) and its SCANNET and IANI projects are described. SCANNET coordinates Nordic online activities including publishing a directory of Nordic databases, Nordic Databasguide. IANI (Intelligent Access to Nordic Information) involves metadatabases with information on the host systems, their databases and search languages. Via a microcomputer-based software frontend, a user will be able to use the same command language to search several Nordic databases and library catalogs.

---


---

Microcomputer software for managing interlibrary borrowing, loaning, and statistics are reviewed by Mary E Jackson in a recent column entitled "Library to Library" in WILSON LIBRARY BULLETIN 64(6):73,74,120, February 1990. Jackson summarizes the features of the following software: FILLS, ILL EXPRESS, ILLFILE/ILLSORT/ILLCOUNT, ILLRKS, Interlibrary Loan Control, QuickDoc, and SaveIT.

---

A publication entitled Marine, Oceanographic, Coastal & Estuarine Laboratories, Institutes, Centers & Research Stations/Facilities in & Near the U.S. is available for US $5.00 from:

New Hampshire Sea Grant
Marine Programs Building
University of New Hampshire
Durham, N.H. 03824

---

SEA HORSES - DRUG EFFECTS ??

At UCSD Libraries (includes Scripps Library), preparation of bibliographic records for the local online catalog revealed an amusing example of record flipping when merging records from different subject heading authorities.

The Scripps Library uses the subject heading "sea horses" with a cross-reference from the genus Hippocampus. The Biomedical Library uses medical subject headings (MeSH) one of which is "hippocampus" for the location in the brain. Several medical books on the hippocampus had their subject headings automatically flipped to "sea horses" with the result being subject headings like "sea horses - drug effects".

---

ANALYZING SERVICE LEVELS & STAFFING

Wondering if circulation, reference or other public service points are adequately staffed to meet the needs of your users? How many CD-ROM or other workstations to install for public use? Based on queuing theory, the DESKLINE program simulates service activity and can assist with analysis of traffic levels. DESKLINE collects activity data and produces charts and reports. Available on 3 1/4 or 3 1/2 floppy disks, DESKLINE runs on IBM compatible microcomputers with DOS 3.1+. DESKLINE is available for a $5 recovery fee for materials and postage. Contact:

Alan Kaye, Patron Services Librarian
Chesapeake Regional Library
Gainesville, GA 30505-2399
USA
(404) 332-3311

---
OCEANIC, THE OCEAN NETWORK INFORMATION CENTER

OCEANIC is the Ocean Network Information Center, developed by the College of Marine Studies, University of Delaware. It is an electronic online information system, developed primarily to support the World Ocean Circulation Experiment (WOCE) research program.

OCEANIC provides access to:

- WOCE program information
- a high-level directory of oceanographic data sets
- a graphics-based library of data products
- information on computer networks
- an electronic address book of oceanographers on networks such as SPAN, Internet, Bitnet, and Telemail (Omnet and Kosmos)
- a searchable international oceanographic research ship schedule

Information on the World Ocean Circulation Experiment (WOCE) is provided by the WOCE International Program Office and the US WOCE Planning Office. The information includes: WOCE program structure, a WOCE calendar, program announcements, RFPs, workshop summaries, abstracts of WOCE and WOCE related projects, abstracts of Topex/Poseidon projects, WOCE Hydrographic Program maps, WOCE algorithms, standards and formats, a WOCE bibliography, and information on other relevant programs including Tropical Ocean Global Atmosphere Program (TOGA) and the Global Ocean Flux Study (GOFSS).

The data set directories includes data set descriptions from the National Oceanographic Data Center (NODC), the National Center for Atmospheric Research (NCAR), NASA Ocean Data System (NODS), and the University of Hawaii Pacific Sea Level Data Center, the University of Rhode Island and the University of Miami.

Browse products available on OCEANIC are wind stress maps of the Pacific and Indian Oceans, produced by the Mesoscale Air-Sea Interaction Group at Florida State University. These maps use wind stress, a measure of the force of winds on the sea surface, to model and predict the ocean circulation.

OCEANIC has a searchable database of international research and supply ship schedules with both cruise schedule and ship contact information. This extensive worldwide research ship schedule database may be searched by ocean area, research discipline, principal investigator, last update, ports, and/or date. The database contains over 1000 cruises of research and supply ships from the US & 10 other countries.

OCEANIC ACCESS PROCEDURES:

OCEANIC is a menu-driven system. It can be accessed by anyone with a modem through a variety of methods and networks including SPAN, Telemail (Omnet & Kosmos), Internet Gateway, international direct, international Telemail/Omnet, Telnet PADD, and direct dialup. There are no charges other than mode of access (e.g. long distance phone call).

For access from Omnet

Omnet prompt:  You respond:  Command?
GOTO SONIC

For further information contact:
Katherine Bouton
WOCE Data Management Unit
College of Marine Studies
University of Delaware
Lewes, DE 19958
(302) 645-4278 ♦

TELEMMAIL: K.BOUTON/OMNET
SPAN: DELOCN::BOUTON
(or node address 6289::)
INTERNET: bouton@vax1.acs.udel.edu
(or node address 192.5.57.1)
PROCEEDINGS OF
THE NATIONAL
SHELLFISHERIES
ASSOCIATION

The Virginia Institute of Marine Science has large quantities of extra issues of Proceedings of the National Shellfisheries Association. The volumes which are available include:

Volumes 51 (1960), 56-67 (1965-1977), 70 (1,2) (1980)

If you need one issue or a run, contact:
Diane Walker
VIMS Library
Gloucester Point, VA 23062
USA
(804) 642-7116
FAX (804) 642-7113
Omnet/Sciencenet: VIMS
(Attn: Library)

IAMSLIC WEST COAST WORKSHOP

9-10 MARCH 1990

BODEGA BAY, CALIFORNIA U.S.A.

Bodega Marine Laboratory, Bodega Bay, California, was the place to be 9-10 March 1990 when 30 marine and aquatic science librarians from Canada, Washington, Oregon, California, Hawaii and the Philippines met for a "west coast" workshop. In addition to discussions and dining, the workshop included tours of the laboratory and the surrounding 326 acre reserve, led by volunteer Docents and the Reserve's Manager and Steward. A list of attendees, including fax numbers and e-mail addresses, was compiled and distributed at the meeting (a copy was sent to IAMSLIC Executive Board members and I will be glad to send a copy to anyone who wants one). We recruited several new IAMSLIC members as a result of the workshop!

The purpose of the workshop was to: further discussions begun at the Bermuda conference and at a previous local meeting held at Moss Landing Marine Laboratories and Hopkins Marine Station in March 1988; facilitate local networking; develop topics for the Seattle conference; identify some potential IAMSLIC members; and visit another marine laboratory.

Discussions at the workshop included: brief introductions by each attendee, who described her/his institution and library collections; an overview of IAMSLIC and its activities; resource sharing (specifically about some possible solutions to avoiding the "net lender/net borrower" trap - like cooperative collection development on a local level, fax/e-mail request/delivery systems, more complete serials holdings informa-

Eleanor Uhlinger
IAMSLIC Secretary
Bodega Marine Laboratory
EURASLIC CONFERENCE
Paris, France 26-27 April 1990

The EURASLIC meeting was held on April 26 and 27, 1990 in Paris at the Institut Oceanographique. The announcement was sent to 200 libraries of both the freshwater and marine communities. Seventy-five people attended from 16 countries.

Technical papers were given on topics dealing with interlibrary loan, bibliographies and databases, specific European databases, and the price of serials. There was information presented by representatives from the Soviet Union, Poland, Spain, and Denmark on the marine and/or freshwater documentation in their countries. The largest part of the meeting was devoted to discussions on the formation of a European group of librarians.

IAMSCLIC was presented - its goals, bylaws and their operation, its achievements, and its expectations as far as European cooperation is concerned. From the presentations and discussions, it appeared clearly that the goals of a European group would be basically very similar to those of IAMSCLIC, but that there are some actions which are possible and desirable at the European level, most probably with the support of the European communities.

The discussions led to the following alternatives: the European librarians could become members of IAMSCLIC and form a regional group under special conditions, or they could form a separate European association.

The first proposal was adopted with a majority vote and a working group was immediately formed to elaborate on the ‘special conditions’ and start discussions with IAMSCLIC.

The members of the working group are as follows:

Elrikur Einarsson, Marine Research Institute, ICELAND
Michael Gomez, Alfred Wegener Institute, F.R.G.
Marianne Harvey, International Maritime Organization, London, UK
Marie Elisabeth Lavraux, Thomas Sintra, FRANCE
David Moulder, Plymouth Marine Laboratory, UK
Ian Pettingen, Freshwater Biological Association, UK
Cecile Thiery, Musée Oceanographique, MONACO
Allen Varley, Plymouth Marine Laboratory, UK

THE CONDITIONS:

1. The European Librarians will propose changes to the bylaws of IAMSCLIC in order to introduce the concept of regional groups, to which would be given a certain level of autonomy within the association and some control in the decision making process.

2. The freshwater libraries wish, and they are fully supported by the group, that their participation be clearly recognized both in the name and in the objectives of the association.

The working group will prepare a draft proposal of the changes requested. This will be completed early enough so that it can be sent to the IAMSCLIC executive board and then to the membership before the October meeting to prepare for a discussion during the business meetings.

In the mean time, the project of a European Directory of Marine And Freshwater Libraries and Information Centers will be pursued using the existing mailing list. Contact will be established with Carolyn Winn in Woods Hole to explore the possibility of combining efforts to produce an enlarged worldwide directory.

The European group did not make any decision concerning a meeting in 1992. It will probably meet in 1991 in The Netherlands on the invitation of Rijkswaterstaat Institute For Inland Water Treatment And Waste Water Treatment, Lelystad, to study the progress made in the discussions with IAMSCLIC. Two venues have been proposed for the 1992 meeting by two IAMSCLIC members: Berenhaven and Iceland. The IAMSCLIC executive board will have to decide on these proposals.
GLOBAL CHANGE ANIMATED ATLAS PLANNED

An upcoming global change software package will graphically display land vegetation data from the AVHRR on the NOAA-7 satellite, ocean productivity data from the CZCS on the Nimbus 7 satellite, ocean data from the Japanese MOS 1 satellite, high-resolution images from the French SPOT 1 satellite, as well as other statistics on population dynamics, cloud cover, and precipitation. Planned for microcomputers with color monitors, animation of images over extended periods of time will enable viewers to watch changes on a planetary scale. With interactive software, users of the atlas will be able to zoom in on a country or region or view composite information in a variety of ways.

The first edition of the global change atlas will be distributed at cost to schools and libraries around the world in 1992 with yearly updates. This global change project is one of ten planned by the Space Agency forum of the International Space Year, a consortium of 25 national space agencies that will participate in ISY activities. Others efforts underway include a greenhouse detection project under the leadership of NASA and a program of extensive sea surface temperature measurements directed by Japan.

U.S. International Space Year Association
600 Maryland Ave SW
Suite 600
Washington DC 20024 USA

MARITIME BOUNDARY DELIMITATION SOFTWARE

(summarized from ICOD INFO, 3(1):9, 1990)

DELMAR is a IBM-compatible microcomputer program used for the delimitation of maritime boundaries. DELMAR is a collection of modules for computing maritime areas, determining offshore limits, delimiting equidistant boundaries, and delimiting boundaries to which partial effects have been assigned. DELMAR has an online tutorial to assist in learning. Copies of DELMAR are available from the International Centre for Ocean Development, 255 Argyle Ave, Ottawa, Ontario, Canada K2P 1B8. Cost is $800 Canadian with a limited number of free copies available to qualified developing-country users.

LOCALLY DEVELOPED ELECTRONIC DATABASES

The proliferation of local, machine-readable, bibliographic databases is of increasing concern to librarians. Many of us have been faced with requests from members of the scientific community to search for references which will then be included in a local electronic database, such as those covering the Southern California Bight or Pacific Hallibut. Many of these databases also include references to gray literature unknown and unavailable outside that institution.

We are concerned with the lack of public awareness of the existence of such databases, standards for both hardware and software, the implications of non-librarians developing such databases, and the role of librarians in addressing these issues.

We are addressing the problem initially with a survey of the marine science community, using the International Association of Marine Science Libraries and Information Centers (IAMSLIC) mailing list. The ultimate result will be a list or directory of locally developed bibliographic databases which are publicly accessible, including information on scope, hardware/software requirements, database developer or local contact, and funding agency.

If you are aware of or have information about such databases, please fill out the survey form on the next page and return to Joan Parker.

Preliminary results will be available at the 16th Annual IAMSLIC Conference to be held in Seattle, Washington, USA October 2-5, 1990.

Joan Parker, Reference Librarian
University Library
1250 Bellflower Blvd.
California State University
Long Beach, CA 90840 USA
(213) 985-4367

Victoria Wellborn
Science Library
University Of California
Santa Cruz, CA 95064 USA
(408) 459-2816

Liz Ginno, Reference Librarian
Science Library
University of California
Santa Cruz, CA 95064 USA