



IEEE

OCEANIC ENGINEERING SOCIETY

Newsletter



VOLUME XXXIII

NUMBER 3

EDITOR: FREDERICK H. MALTZ

SUMMER 1998

(USPS 420-910) ISSN 0746-7834

OCEANS'98



Visit Us on the Web

<http://www.ifremer.fr/oceans98/>



President

CLAUDE P. BRANCART
Draper Laboratory
555 Technology Square
MS 55
Cambridge, MA 02139
(617) 258-3097
c.brancart@ieee.org
(617) 258-2942 (FAX)

Vice President

Technical Activities
JOSEPH R. VADUS
Global Ocean Inc.
8500 Timber Hill
Potomac, Maryland 20854
(301) 299-5477
(301) 983-4825 (FAX)
jvadus@erols.com

Vice President,

Professional Activities
NORMAN D. MILLER, P.E.
2644 NW Esplanade Drive
Seattle, WA 98117-2527
206-784-7154
206-784-0478 (FAX)
n.miller@ieee.org

Vice President,

International Activities
PIERRE SABATHE
Thomson Marconi Sonar
525, Route Des Dolines -
B.P. 157
06903 Sophia-Antipolis
Cedex - France
+33 4 92 44 69
+33 4 92 96 40 32 (FAX)
p.sabathe@ieee.org

Treasurer

THOMAS F. WIENER
2403 Lisbon Lane
Alexandria, VA 222306-2516
(703) 516-7405
(703) 522-6108 (FAX)
twiener@arpa.mil

Secretary

CYNTHIA McKEE
c/o Draper Laboratory
555 Technology Square, MS 55
Cambridge, MA 02139
(617) 258-3106
(617) 258-2942
cmckee@draper.com

(Continued on back cover)

Journal of Oceanic Engineering Editor

WILLIAM M. CAREY
79 Whippoorwill Road
Old Lyme, CT 06371
(860) 434-6394
w.carey@ieee.org

Newsletter Editor

FREDERICK H. MALTZ
1760 Larkellen Lane
Los Altos, CA 94024
(650) 967-5092
(650) 967-5092 (FAX)
f.maltz@ieee.org

Web Master

ERIC NELSON
100 Warren Street #301
Jersey City, NJ 07302
(409) 845-6516
(409) 847-9284 (FAX)
eric@csc.tamu.edu

Regional Associate Editors (outside North America)

(For addresses please see back cover)

ANTHONY T. ASHLEY
Canada

HISAAKI MAEDA
Japan and Asia

JOHN D. PENROSE
Western Australia

RENE GARELLO
France and Europe

MALCOLM L. HERON
Southern (Australia, Africa, South America, Oceania)

Specialty Associate Editors (North and Central America)

ARTHUR B. BAGGEROER
Arctic/Antarctic Oceanic
Engineering, Information and Processing
of Acoustic and Electromagnetic
Phenomena

Tracking, Automation, Nonlinear, Higher
Order Statistics, Nonstationary Signals

DAVID P. KNOBLES
Seismo Acoustics, Seafloor Geophysics,
Seismology, Propagation, Scattering, Sig-
nal Processing, Interface Waves

JOHN D. PENROSE
Regional Editor Western Australia

D. RICHARD BLIDBERG
JOHN J. LEONARD
AUV's, ROV's, Autonomous Systems,
Unmanned Vehicles, Intelligent Systems,
and High Level Control

JOHN E. EHRENBURG
Acoustic Simulation and Sensors

JAMES F. LYNCH
Acoustical Oceanography and Ocean
Acoustics, Shallow Water, Tomography,
Arctic and Bottom Boundary Layer
Studies

ROBERT C. SPINDEL
PETER DAHL
Acoustic Communication, Navigation and
Telemetry; Acoustic Tomography;
Acoustic Remote Sensing; Underwater
Optics

CHRISTIAN DE MOUSTIER
Bathymetry, Surveys, Mapping, Remote
Sensing, and Sonar Image Processing

DAVID M. FARMER
Instrumentation, Acoustical Oceanogra-
phy, Air-Sea Interaction, Turbulence

HISAAKI MAEDA
Regional Editor for Japan, Asia
Marine Hydrodynamics, Dynamics of
Floating Structures, Underwater Vehicles
Ocean Energy Utilization

RICHARD STERN
Engineering Acoustics: Equipment and
Devices, Instrumentation, Materials, Mea-
surement Techniques

ROGER F. DWYER
STERGIOS STERGIPOULOS
Active and Passive Sonar Signal Pro-
cessing: Detection, Classification,

RENE GARELLO
Regional Editor France and Europe

ARYE NEHORAI
Array Processing; Statistical Analysis;
Detection; Estimation

EDMUND J. SULLIVAN
GEOFF EDELSON
Array Processing: High Resolution,
Matched-Field, Model Based
Measurement Arrays, Sonar Processing

MALCOLM L. HERON
*Regional Editor South America, Australia
and Africa*
Remote Sensing; Radar; Waves; Currents;
Air-Sea Interaction

CHAPTER CHAIRMEN

Canadian Atlantic
FERIAL EL-HAWARY
61 Bay View Road
Halifax Nova Scotia
Canada B3M 1N8
(902) 443-2400
(902) 445-5110 (FAX)

Houston/Galveston Bay
AL WILLIAMS
FSSL Inc.
525 Julie Drive
Sugar Land, TX 77478
(713) 240-1122 ext 214
(713) 240-0951 (FAX)

San Diego
BRETT CASTILE
Orincon Corporation
9363 Towne Center Drive
San Diego, CA 92121
(619) 455-5530 X212
(619) 453-9297 (FAX)

Victoria
JON PRESTON
Mine Countermeasures Group
Esquimalt Defense Research Detachment
FMO Victoria, BC Canada V0S 1B0
(604) 363-2892
(604) 363-2856 (FAX)
preston@ednd.dnd.ca

France
RENE M. GARELLO
Telecom Bretagne
Dept. Image Et Traitement de l'Infomation
Technopole Brest Cedex
29285 Brest Cedex
France
(33) 98 00 13 71
(33) 98 00 10 98 (FAX)
r.garello@ieee.org

Hawaii
BOBBIN TALBALNO
94-792 Nolupe Street
Waihu, HI 96797
(808) 608-3200
(808) 668-3780 (FAX)

Seattle
PAULA LAU
15222 162nd Ave., S.E.
Renton, WA 98058

Washington D.C./No. Virginia
JAMES BARBERA
13513 Crispin Way
Rockville, MD 20853
(301) 460-4347
(301) 871-3907 (FAX)

Norway
DR. THOR I. FOSSEN
Professor of Guidance and Control
Dept. of Engineering Cybernetics
University of Trondheim, N-8034
Trondheim, Norway
47-73594361
47-73594399 FAX

Tokyo
DR. TERUO FUJII
Chemical Engineering Laboratory
RIKEN (Institute of Physical and Chemical
Research)
2-1 Hirosawa Wako-shi, Saitama, 351-01,
Japan
81-48-462-1111
81-48-462-4658 (FAX)

IEEE Oceanic Engineering Society Newsletter is published quarterly by the Oceanic Engineering Society of the Institute of Electrical and Electronics Engineers, Inc. Headquarters: 345 East 47th Street, NY 10017. \$1.00 per member per year (included in Society fee) for each member of the Oceanic Engineering Society. Printed in U.S.A. Periodicals postage paid at New York, NY and at additional mailing offices. Postmaster: Send address changes to IEEE OCEANIC ENGINEERING SOCIETY NEWSLETTER, IEEE, 445 Hoes Lane, Piscataway, NJ 08854

IEEE-USA Offers Free Electrotechnology Career Vitality Packets

WASHINGTON, July 22, 1998 — IEEE-USA has released a free career vitality packet outlining its extensive career-development and employment-assistance services for professionals in the electrotechnology and information-technology communities. The packet is designed to serve human resource professionals as well as individual students, IEEE members and other electrical, electronics and computer engineers and computer scientists.

The packet's contents include detailed information on the Engineer's Guide to Lifelong Employability, the IEEE-USA Salary Survey and personal

Salary Benchmarks workbook, IEEE-USA's employment and job-listing services, and the National Directory of Electrotechnology and Information Technology Consultants, plus a free copy of Today's Engineer magazine — the only publication devoted exclusively to the professional development of engineers of all disciplines.

Recipients of the packet will learn about a range of IEEE-USA's career and employment services that can help technical professionals develop greater career vitality. These programs include the nation's number-one electrotechnology job listing service (with a new en-

try-level section), an alliance of local consultants' networks, career workshops, resume-referral services, job fairs, free employment assistance for IEEE members, and a series of career-oriented papers, guides and resource materials for technical professionals and their employers.

To request a career vitality packet, contact Mike Chaykovsky at 202-785-0017, ext. 337, or <mailto:m.chaykovsky@ieee.org>. For additional information on IEEE-USA's career and employment resources, see URL <http://www.ieeeusa.org>.

New Membership Initiatives Underway

With 1702 members, the IEEE Oceanic Engineering Society(OES) is one of the smaller of the 36 societies and councils which make up the IEEE Technical Activities group. In spite of our small size we offer as many programs as some of the larger sister societies. Valuable OES activities include the annual OCEANS and OTC Conference at special member rates, a quarterly Journal and newsletter as well as the biannual AUV and Current Measurement workshops and the UT Symposium held for the first time this year in Tokyo.

One way the OES serves its members more personally is through Chapter activities in locations with more geographically concentrated membership. As stated in a separate newsletter item, Jim Glynn our new Chapter Chair will be actively promoting increased local activity in the society. This will increase OES attractiveness by providing valuable local contacts to members through both relevant technical meetings and social activities with professional colleagues in the same communities.

I am pleased to say as your new Membership Chair that we have had two successful memberships promo-

tions recently. At UT'98 in Tokyo in April, we recruited a total of 46 new members from countries around the world including not only host Japan but also Bulgaria, Canada, United Kingdom, France, Indonesia, Iran, Peoples' Republic of China, Republic of China, Russia, and the USA. More recently a promotion and booth at the Offshore Technology Conference in Houston produced 21 new members from countries including not only again Canada, Russia, the United Kingdom and the USA but also Columbia, Cameroon and Qatar. Similar efforts are in the planning stages for AUV98 in Boston on August 20-21 and OCEANS 98 in Nice from Sept. 29 to Oct. 1, 1998.

New memberships are most effectively promoted between friends and acquaintances. In order to encourage this method of growing your society I am putting forth a proposal to the Administrative Committee of the society this fall at OCEANS 98 for a new annual "Super Member Award" for the member who is responsible for generating the greatest number of new joint IEEE-OES Memberships. Get to work right now because I am recommending as well that the members so recruited

after this article is published be credited to the recruiters point count retroactively if the award is passed in late September! If you need application forms let me know at j.s.collins@ieee.org.



I should note that IEEE Headquarters has a promotion of their own this year to try to increase the number of Senior Members in IEEE by 1% of the total membership (302,000). For each member so upgraded the Society receives a \$10.00 credit from IEEE. More importantly the Senior Member receives the ability to serve on IEEE H/Q committees requiring that certification. It is also a requirement if you have any aspirations to ever be an IEEE Fellow ... and finally it looks nice on your resume.

Jim Collins
Membership Development Chair
j.s.collins@ieee.org

OES Technical Activities Quo Vadis?

For easy reading, here are some informative one-liners.

Technical Committees: Coordinator of our eleven technical committees, Stan Chamberlain and committee chairs continue to marshal technical expertise in support of OCEANS conferences and workshops, and provide sources for journal papers.

Publications: Bill Carey, Editor of our Journal of Oceanic Engineering, with his supporting associate editors, continue to produce a first class journal recognized world-wide for high quality. Fred Maltz, Editor of the OES Newsletter keeps us all well informed with the newsletter now on the internet and/or by mail. The journal and newsletter have proven invaluable for promoting OES conferences.

Ocean Oriented Conferences: Their numbers are proliferating world-wide and to some extent diluting attendance and availability of good papers and exhibitors. Competition is mounting.

Underwater Technology '98: In Tokyo, last April. Over 200 attendees from 14 countries, 90 papers, JAMSTEC tour, networking socials. A great success by the newly formed Japan Chapter. See UT'98 activities in the centerfold.

OCEANS '98: In Nice, France Sept.29–Oct.1. A great venue. Last chance in this century for a high tech visit to the French Riviera, with VP and General Chair Pierre Sabathe & Committee Chairs, and OES Liaison by Glen Williams. Program Co-Chairs Philippe Marchand and Stan Chamberlain and Technical Committee reviewed over 540 abstracts and distilled them to about 400 papers. It's on the internet: <<http://oceans98.ifremer.fr/oceans98>>

AUV'98: President Brancart is organizing and chairing this special workshop focusing on AUV navigation hardware/software in Cambridge, Mass. August 20-21. It's all on the internet <<http://auv.tamu.edu/auv98>>.

All Conferences: 1999-2002 will be titled OCEANS XX MTS/IEEE.



Joseph R. Vadus, Vice President

OCEANS'99: In sleepless Seattle, U.S. gateway to the Pacific Rim. A great draw. Chairs Bob Spindel and Ted Brockett are at the helm with the executive team of Ed Early, Bill Barbee, and Norm Miller, who is also OES Liaison. Committee chairs and the Call for Papers are ready to roll for the 10th anniversary there. Check the internet <

The MTS-IEEE/OES Coordinating Committee has completed new conference guidelines, and an RFP to seek bids (due in September), for a support contractor for OCEANS conferences 2000, 2001 and 2002. The IEEE-ITCMS will continue to support OCEANS '99, after which the contract runs out.

OCEANS '2000: In Providence R.I. on Narragansett Bay is shaping up. New Englanders Brancart and Chamberlain are helping to organize and structure the management team. A proposal is in the works. The OES Directory lists more OES members in the Providence Section than any other city in the U.S.

Underwater Technology '2000: In Tokyo again, to repeat an acclaimed successful symposium run by the Japan Chapter, OES's newest and largest active chapter. Sponsors are OES, ONR and the University of Tokyo. The ExCom includes OES's: Hisaaki Maeda, Joe Vadus, Tamaki Ura, Bob Wernli, and Dick Root & Hassan Ali of ONR. Check us out on the internet:

<<http://underwater.iis.u-tokyo.ac.jp/ut98/>>. Click on Prof. Ura and get a glimpse of the University of Tokyo's underwater robotics.

OCEANS'2001 or "OCEAN Space Odyssey 2001". In Hawaii, for the 10th Anniversary. Plans are being coordinated by Craig MacDonald, State of Hawaii, Department of Business Economic Development and Tourism (DEBEDT). Craig proposes to Co-Chair the Technical Program and the Director of DEBEDT as Conference Chair. Honorary Chairs are the Governor and the Navy Pacific Commander (COMPACFLEET). OES's OCEANS'91 Chair Kiman Wong is lending support to '01, with intentions to revitalize the Chapter.

OCEANS'2002: In Biloxi, Mississippi. About one hour from New Orleans and from Stennis Space Center, with a large contingent of Navy, NOAA and NASA, and their supporting contractors. Navy Rear Admiral K. Barbor will Chair, with a strong team of committee chairs. The Five Star Beau Rivage Resort Hotel on the beach and the nearby convention center amidst many resort hotels along the beach, provide the local venue. Lloyd Breslau is involved with '02, and is now trying to revitalize the OES Gulf Chapter.

OCEANS'2003: Is it time to go abroad again, or time to return to Washington? Send me your proposals and rationale for technical and financial success.

Sustainable Development of OES: We have a strong national central activity, but need to rebuild our regional network of chapters and increased membership. In planning for future conferences, I learned quickly how important chapters are for hosting conferences in major coastal cities. Membership Chair Jim Collins is busy recruiting, and I saw him in action at OTC Houston. Jim also arranged to get 40 applicants from 200 registered at UT'98 in Tokyo. He made sure the special discount forms were there, with routing back to him for processing. He

and Chapter Chair Jim Glynn are teaming up because membership is easier if a member could be allied with an active local chapter. A local Chapter needs strong leadership and a local program to remain active. I propose that we revitalize dormant chapters with a partially subsidized OES renewal luncheon and layout a speaker program with occasional imported speakers to provide topical diversity. (We have excellent

pubs and technical committees on the national front, but we need to build up our regional network of chapters and membership that are vital for sustainable development of OES.

Potpourri of Activity: You are cordially invited to volunteer to help support one or more of the above functions. Your participation is appreciated, and you can enjoy the camaraderie of a cooperative effort.

Wanted: Technical Co-Chairs and Technical committee members for OCEANS 2000, 2001 and 2002. "Technical Juntas" are needed to form local chapters. OES needs a few more good men and women. We need you.

Your ideas and suggestions are welcome. Contact me at:

<Jvadus@erols.com>

**Joseph R. Vadus
Vice-President,
IEEE/OES Technical Activities**

Editor's Note



We have already had a few responses from the membership on the web version of the OES Newsletter. The responses have been very helpful. We are considering various options for continuing the online version along with the hard copy. Please take the time to look at the survey below and let us know what you think. We want to hear from you.



If you haven't already viewed the newsletter online you will find both the Spring and Summer issues by linking from the IEEE home page <<http://www.ieee.org>> through "Online Pubs". You can also link from the OES home page <<http://auv.tamu.edu/oes/>>, which has current information on AUV '98 and Oceans '98.

**Frederick Maltz,
OES Newsletter**

NEWSLETTER SURVEY

1. Have you accessed the trial web version of the OES Newsletter? _____
2. Do you like the PDF format? _____ Would you like to see it in HTML format also? _____
3. Do you want to keep the printed version? _____
4. If OES published the Newsletter in either paper copy or on the web but not both, which would you prefer?

5. Suggestions and/or comments:

You can send your response to me at the address below:

Fred Maltz
1760 Larkellen Lane
Los Altos, CA 94024
e-mail: f.maltz@ieee.org

UT '98

Opening Reception



UT'98 reception at the New Sanno Hotel



T. Ura, J. Vadus, A. Sagalevitch, R. Wernli



H. Maeda, M. Ageev (Russia), R. Wernli, Mrs. Ageev, J. Vadus



Prof. Hassan B. Ali, ONR Asia, RAdm. Brad Mooney (USN ret.), Dr. H. Momma (JAMSTEC)



T. Ura, C. Brancart, H. Ali, ONR Asia



Co-Chairs Maeda and Vadus opening the reception

Presentations



Co-Chairman Maeda introduces Mr. Masao Sakauchi, Director, Institute for Industrial Science, University of Tokyo.



Richard Root, Director of ONR Asia gives opening remarks



Assembly at President Brancart's Keynote



Claude Brancart presents a keynote



Barbara Moore, U.S. Chair for UJNR Panel on Submersible Research presents a keynote.



Mr. K. Matsumoto describing 11,000 meter Kaiko ROV at JAMSTEC

Debriefing



ExCom debriefing luncheon: L to R: C.K. Rheem, Y. Ishii, T. Fujii, T. Ura, J. Vadus, R. Wernli, C. Brancart



UT'98 debriefing with T. Fujii, A. Sagalevitch, H. Maeda, R. Wernli, server, T. Ura.



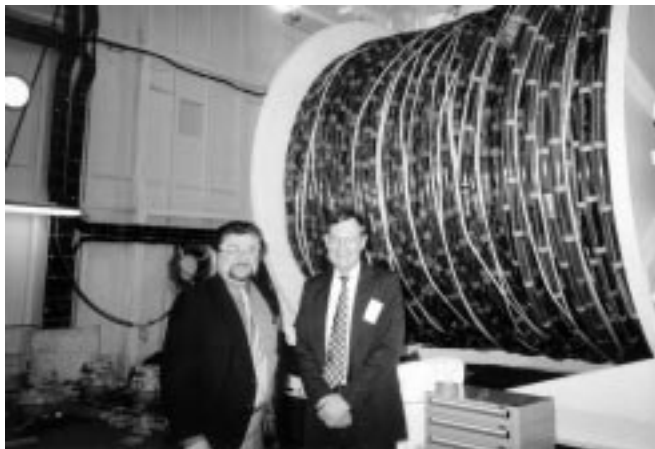
UT'98 debriefing with T. Fujii, A. Sagalevitch, H. Maeda, R. Wernli, server, T. Ura.



R. Wernli, N. Dukov



Dr. Anatoly Sagalevitch presents keynote on Russian Undersea Technology



J. Vadus and R. Root checking cable drum of JAMSTEC's Kaiko ROV

UT '98 ExCom and International Advisory Committee Dinner



Post UT '98 dinner with ExCom and International Advisory Committee: L to R: Prof. J. Zhu, China, J. Vadus, Prof. Noriyuki Nasu and C. Brancart



R. Root, H. Maeda, Y. Ishii



Tech. Program Chairs Tamaki Ura and Bob Wernli toasting their successful program



B. Moore, H. Kinoshita (JAMSTEC)



C. Brancart, Mikhail Ageev, A. Sagalevitch, R. Wernli, Prof. Zhu (CHINA)



UT'98 Treasurer Y. Ishii and Tech. Program Co-Chair T. Ura flanking Russian Submersible Expert, A. Sagalevitch

A Message from the Chapters Chairman

As the recently appointed Chapters Coordinator for the IEEE Oceanic Engineering Society, I, along with the OES Membership Chairman (Jim Collins) and the Vice President for Professional Activities (Norm Miller), have been tasked by the OES to establish programs and strategies to strengthen the OES Chapters.

A sound chapter structure is essential to the well being of the society. Chapters provide an opportunity to promote the local interests of the OES membership, as well as provide a mechanism to promote technical exchanges on a local level. The OES is committed to strengthening its local chapters, and has established a budget to do so.

As the OES Chapter Coordinator, I look forward to committing these funds to the benefit of OES Chapters. Accordingly, I invite chapter officers to submit

a brief, letter-style proposal for funding to enhance local Chapter activities. Proposals are solicited in the \$500.00 to \$1,000.00 for extraordinary chapter activities, such as defraying the cost of attracting a nationally known speaker to give a talk, or augmenting the expense of a field trip to a special facility. The society's goal is to strengthen the chapter through these activities, and enable the chapter to institutionalize such activities using enhanced revenues from an increased membership. Your ideas and input on activities that will strengthen your local chapter are specifically encouraged and they should be briefly described in your proposal. Proposals to support the routine chapter operations are not sought through this solicitation.

Proposals should come from the Chapter Officers (or OES members in-

terested in forming a chapter where no chapter exists), and identify the anticipated use of the requested funds. To OES members in areas that do not have active local chapters, this is an excellent opportunity to obtain assistance from the OES to form one. Establishing new chapters is of particular interest, and funding (and other organizational support) is available to help interested "Chapter Champions" get a new chapter going. I hope you will take advantage of this opportunity to strengthen your local chapter.

I look forward to serving the OES membership in this position, and welcome your thoughts and comments.

Jim Glynn
OES Chapters Chairman
j.glynn@ieee.org

National Engineers Week Announces 1999 Billboard Campaign

Washington, July 17, 1998 — For its 1999 celebration, the National Engineers Week Committee will again take the message that "Engineers Turn Ideas into Reality" to the streets and the highways through its Outdoor Advertising Campaign. The goal of the program, which will be led by Sections and Student Branches of engineering societies around the country, is to place a public-service announcement involving engineers on a minimum of 100 billboards during the month of February. The campaign has a dual purpose: to increase grassroots involvement in National Engineers Week, particularly among undergraduate engineering students; and to make a broader audience aware of the week-long celebration and the technological achievements it honors.

The program works as follows: First,

Sections should contact National Engineers Week and request an Outdoor Advertising Campaign kit. Then, they should identify one (or several) billboards or other prominent public advertising spaces within their community, identify the agency which rents out the space, and call or write to the agency asking to secure it for February 1999. Once the space is secured, the group will mail to National Engineers Week headquarters a reservation form, providing all the details on where and when the materials should be delivered, no later than Dec. 15. Headquarters will provide the artwork and will mail the completed materials directly to the agency.

For 1999, the campaign will again use the theme "Engineers: Turning Ideas Into Reality," with artwork por-

traying engineers as hands-on problem-solvers. Each poster will contain a tagline stating, "This message brought to you by the National Engineers Week Committee and...", with the name of the sponsoring Section or group, giving the ad more of a local focus and providing a plug for the group doing the work. The Outdoor Advertising Campaign planning packet will be available by early fall. To reserve a packet, write to National Engineers Week, PO Box 1020, Sewickley, PA 15143, or <<mailto:eweekorders@abdintl.com>>. For more information on National Engineers Week 1999, to be celebrated Feb. 21-27, see URL <<http://www.eweek.org>>



A LANDSLIDE OF INTEREST FOR OCEANS'98

Summer 1998

The international conference OCEANS'98, organized by the Oceanic Engineering Society of IEEE (Institute of Electrical and Electronics Engineers and set under the theme of **engineering for sustainable use of the oceans** will be held in Nice Acropolis Convention Center 28 September – 1 October 1998. The technical program was established by 75 European and North American scientific experts. They selected 413 original papers from 550 high quality scientific abstracts, coming from 35 countries, record-breaking figures for the annual OCEANS series of conference). For 1998, “**International year of the ocean**”, OCEANS'98 is supported also by the European Commission.



Sonar and oceanographic instrumentation are the traditional topics of the conference, as well as Underwater Vehicles (manned, autonomous or remote operated). The problems of positioning, mission control and communication are understood as the link between the three above topics. An

emerging part in term of papers, is linked to recent developments of satellite data acquisition for surveying the ocean. Remote sensing is then confronted to the overwhelming flow of information pouring from the sky and is closely linked to the development of image and signal processing methods and techniques. Finally, as human resources are for 70 % closely linked to coastal zones, OCEANS'98 will focus on coastal zone management through coastal observation systems including oceanographic and biologic data.

Around 75 firms will display their products at the conference for thousands of visitors and hundreds of scientists and R&D engineers will then have the opportunity to establish long term relationship through this large State of the Art exhibition.

The OCEANS'98 advance program is posted on the web site:

[Http://oceans98.ifremer.fr/oceans98](http://oceans98.ifremer.fr/oceans98)

Press information contact:

Professor René Garello
 Phone : +33.2.98.00.13.71
 E-mail:rene.garello@enst-bretagne.fr
 Fax : +33.2.98.00.10.98



Who's Who in the OES

William M. Carey

(M'85-SM'91-F'96) received the B.S. degree in mechanical engineering, the M.S. degree in physics, and the Ph.D. degree in nuclear science from The Catholic University of America, Washington, DC, in 1965, 1968, and 1974, respectively.

Presently, he is the Editor, as a Member of the Kerry Group LLC, of the IEEE JOURNAL OF OCEANIC ENGINEERING, an Adjunct Professor at the Rensselaer Polytechnic Institute, Troy, NY, and Physicist with the Naval Undersea Warfare Center. Previously he was a Physicist with the Advanced Research Projects Agency and was assigned to MIT's Department of Ocean Engineering. He has also



been a Research Physicist and Engineer at the Naval Underwater Systems Center, The Naval Oceanographic Research and Development Activity, and the Naval Research Laboratory. At the University of Chicago's Argonne National Laboratory, he was an Associate Scientist and Section Manager of acoustic surveillance of reactors. He has been a consultant to both industry and government in the areas of nondestructive testing, nuclear science/environmental measurements, and applied ocean acoustics.

Dr. Carey is a fellow of the Acoustical Society of America, a full member of Sigma Xi and a member of the Connecticut Academy of Science and Engineering.

FIRST ANNOUNCEMENT AND CALL FOR PAPERS

International Symposium on Geographic Information Systems (GIS) in Fishery Sciences

(March 2-4, 1999, Seattle, Washington, USA)

BACKGROUND

Geographic Information Systems (GIS) have become powerful tools in fishery sciences in recent years. There have been various local GIS workshops and meetings on different topics in fishery sciences such as, fisheries oceanography, aquaculture, inland fisheries, fisheries management, spatial analyses etc. However, sharing experiences with these development and applications in fishery sciences at a world-wide level have been limited. For this reason, the first international GIS Symposium in fishery sciences will be held during March 2-4, 1999 in Seattle, Washington, USA. The main organizer is the Fishery GIS Research Group. The Alaska Fisheries Science Center, National Marine Fisheries Service, Seattle, Washington, USA will voluntarily assist in organizing the Symposium.

OBJECTIVES

The primary objectives of this symposium are to (a) highlight developments and applications of GIS in fishery sciences, (b) exchange ideas and information, and (c) further improvement for techniques and applications of GIS in fishery sciences.

SUBJECTS

The symposium tentatively covers GIS applications on the following subjects:

- (a) Fisheries oceanography,
- (b) Fisheries management,
- (c) Inland fisheries,
- (d) Geostatistics,
- (e) Aquaculture,
- (f) Spatial data analyses,
- (g) Survey data analyses,
- (h) Remote sensing,
- (i) Global positioning system (GPS),
- (j) Software/hardware development, and
- (k) any others relevant subjects. The emphasis on these subjects may change depending upon the interests of participants.

PARTICIPATION

Participation of a broad audience representing GIS applications in fisheries sciences are encouraged, i.e., scientists, students, computer experts (developers), managers, administrators, and educators.

PRESENTATIONS

Besides oral presentation of the papers, there will be poster sessions and PC demonstrations of GIS software/applications. Details on abstract and methods for presentations will be given in the final announcement to be distributed on November 1, 1998. The proposed venue for this symposium is the National Oceanic and Atmospheric Administration Auditorium at Sand Point Way NE, Seattle, Washington, USA or a hotel conference facility.

REGISTRATION FEES

About US \$100-150 (half price for students), depending on number of participants and administrative expenses.

SCHEDULE

April 15, 1998

First announcement and call for papers.

April 15, 1998 – October 15, 1998

Period of registration.

November 1, 1998

Final announcement for the participants (Information on abstract, presentation and registration fees will be provided for participants).

November 15, 1998 – December 31, 1998

Period to send abstracts and registration fees.

March 2-4, 1999

Symposium

KEYNOTE SPEAKER and MODERATORS

A key note speaker and moderators for each session (subject) will be determined later.

PUBLICATION

Papers will be published in a Proceedings of the Symposium.

REGISTRATION

Send the following information by E-mail (preferable) to the convener (*) during April 15 – October 15, 1998.

- (a) Full name (first, middle and last: last name in capital letter),
- (b) name of the organization,
- (c) post or position,
- (d) mailing address,
- (e) E-mail address,
- (f) telephone and FAX number including country code,
- (g) (tentative) title of your paper (with names of co-authors, if any),
- (h) subject of the paper: select one from category specified in (SUBJECTS), (h) name of the presenter, and (h) method of presentation (oral, poster, or software/hardware demonstration).

MAIN ORGANIZER

Fishery GIS Research Group
C/o Environmental Simulation Laboratory
2F, Noble Build.,
2-4-1 Arajuku, Kawagoe, Saitama,
Japan 350-1124
E-mail: esl@esl.co.jp
FAX: 81(Japan)-492-41-2442
Tel: 81(Japan)- 492-42-9262
<http://www.esl.co.jp/sympo.htm>

CONVENER*

Tom Nishida
National Research Institute of Far Seas Fisheries
5-7-1 Orido, Shimizu, Shizuoka,
Japan 424-8633
E-mail: tnishida@enyo.affrc.go.jp
FAX :81(Japan)-543-35-9642
Tel: 81(Japan)- 543-36-6043

SYMPOSIUM STEERING COMMITTEE MEMBERS

Loh-Lee Low
Alaska Fisheries Science Center, National Marine Fisheries Service
7600 Sand Point Way NE
Seattle, Washington 98115-0070, USA.
E-mail: Loh-Lee.Low@noaa.gov
FAX: 1(USA)- 206-526-6723
Tel: 1(USA)-206-526-4190

Allen Shimada
Office of Science and Technology
National Marine Fisheries Service
1315 East-West Hwy
Silver Spring
20910 Maryland, USA
E-mail: Allen.Shimada@noaa.gov
FAX: (1) (USA)-301-713-1875
Tel: 1(USA)-301-713-2363

Geoff Meaden
Department of Geography
Canterbury Christ Church College
North Holmes Road,
Canterbury, Kent, CT1 1QU, UK
E-mail: g.j.meaden@cant.ac.uk
FAX: (44) (UK)-1227-767531
Tel: 44 (UK)-1227-767700 (Ext. 2327)

William L. Fisher
Oklahoma Cooperative Fish and Wildlife Research Unit
404 Life Sciences West
Oklahoma State University
Stillwater, Oklahoma 74078 USA
E-mail: wfisher@okway.okstate.edu
FAX: (1) (USA)- 405-744-5006
Tel: 1(USA)-405-744-6342
Other voluntary committee members are welcome.
Please contact the convener (*).

FUTURE SYMPOSIUM

The Fishery GIS Research Group plans to organize this type of Symposium irregularly (every 2-4 years) in different cities in the world.

IEEE News

Second Annual IEEE-USA Elections Coming This Fall

IEEE-USA is getting ready for its second annual election. Last year, the new restructuring which transformed IEEE-United States Activities into IEEE-United States of America (IEEE-USA) allowed the IEEE's U.S. members to elect their own leaders for the first time. The candidates this year are:

1999 President-Elect: Merrill W. Buckley, Jr.; Charles S. Lessard; and Michael R. Andrews

* 1999 IEEE-USA Member-at-Large: Michael C. Mulder and Robert P. Noberini

The IEEE will mail ballots to all members Sept. 1. Members must return their ballots in accordance with the instructions by Nov. 2. More information on the elections is available on IEEE-USA's Nominations and Elections page at URL <www.ieeeusa.org/usab/ELECTION>.

Finished Grad School? Here's What Companies Deem You're Worth

Did you finally get that master's you've been working on? Are you considering a graduate degree? What is your advanced degree worth these days, anyway? IEEE-USA's Workforce Committee recently released figures showing the 1998 average beginning salary offers for engineers and computer scientists. IEEE-USA bases its information on surveys the National Association of Colleges and Employers (formerly the College Placement Council) conducts annually. Here's a summary of starting salary offers for electrical, electronics and computer engineers:

Master's degree candidates (by curriculum):

Electrical and electronics engineering: \$49,792

Computer science: \$47,270

Doctoral degree candidates (by curriculum):

Electrical and electronics engineering: \$69,750

IEEE-USA Offers Fellowship At FCC

IEEE-USA is looking for a qualified IEEE U.S. member interested in spending a year in Washington as a technical advisor to the Federal Communications Commission (FCC), beginning in January 1999. IEEE-USA and the FCC are collaborating in offering a Fellowship in the FCC Office of Policy and Plans to help the nation's telecom regulators understand

how new, advanced and alternative telecommunications network architectures and technologies could affect telecommunications policy.

The deadline for receipt of completed applications is Oct. 2, 1998. Consult the Government Fellowships page at URL <<http://www.ieeeusa.org/usab/FORUM/GOVFEL>> for more details and an application kit, and be on the lookout for the September print issue of *IEEE-USA PERSPECTIVES*, where IEEE-USA's first FCC Fellow, Stan Trost, will share his experience with the fellowship so far.

Does Your 'AQ' Match Your 'IQ' And 'EQ'?

More important than an employee's IQ (intelligence quotient) or EQ (emotional quotient) may be the worker's AQ, the "adversity quotient," some companies now say. Companies such as Marriott International Inc. are conducting "adversity training" to help employees learn how to deal with unexpected changes and challenges, and how to come up with innovative problem-solving ideas.

A June 14, 1998, *Washington Post* article described how companies are helping turn passive employers into "climbers," with a result of improved work and confidence, less sick days and less turnover. But, the article noted, some critics say "adversity training" is a new name for an old idea. According to D.C.-based workplace consultant Tom Morris, "it's nothing more than the old adage 'if you're given lemons, make lemonade,' and my mother taught me that."

For information on career advice and resources offered by IEEE-USA, see URL <<http://www.ieeeusa.org/usab/DOCUMENTS/CAREER/career.menu.html>>.

IEEE-USA Celebrates Golden Jubilee

In 1998, IEEE-USA celebrates 25 years of service to the electrical, electronics and computer engineering profession in the United States. The IEEE founded IEEE-USA 1973 as its United States Activities Committee (USAC), charged with promoting the professional interests of IEEE's U.S. members. By referendum of the U.S. membership, USAC became IEEE's United States Activities Board (USAB) in 1975. On Jan. 1, 1998, USAB took the next step, formally becoming IEEE-United States of America (IEEE-USA). Today, IEEE-USA promotes the career and public-policy interests of 220,000 U.S. IEEE members. For more on the history of professional activities, along with some fun and a chance to win prizes, check out IEEE-USA's 25th Anniversary Web Site at URL <<http://www.ieeeusa.org/usab/ANNIVERSARY>>.

ELECTED ADMINISTRATIVE COMMITTEE

JAMES BARBERA
(see Chapter Chair)
HISAAKI MAEDA
Institute of Industrial Science,
University of Tokyo
7-22-1 Roppongi, Minatoku,
Tokyo 106, Japan
+81-3-3402-6231 ext. 2255
+81-3-3402-5349 (Fax)

PAULA LAU
15222 162nd Avenue SE
Renton, WA 98058
(206) 235-3413 (Phone);
(206) 847-9284 (Fax)

JOSEPH CZIKA, JR.,
(see Jr. Past President)

DANIEL L. ALSPACH
ORINCON Corp.
9363 Towne Center Drive
San Diego, CA 92121
(619) 455-5530; (619) 452-4258 (Fax)
alspach@snap.org

GLEN N. WILLIAMS
(see Senior Past President)

LLOYD R. BRESLAU
Environmental Solutions Inc.,
108 Rue Acadian
Slidell, LA 74061
(504) 847-9720 (Phone & FAX)

JAMES S. COLLINS
Dept. of Elec. &
Comp. Engineering
University of Victoria
P.O. Box 3055
Victoria, B.C.
CANADA V8W 3P6
(604) 721-8610; (604) 721-6052 (FAX)
j.s.collins@ieeee.org

ROGER DWYER
43 South Cobblers Ct.
Niantic, CT 06357
(860) 440-4511
r.dwyer@ieeee.org

EDWARD W. EARLY
4919 N E 93rd Street
Seattle, WA 98115-3931
(206) 525-2578

FERIAL EL-HAWARY
(see Chapter Chair)

JAMES GLYNN
Klein Associates
11 Klein Drive
Salem, NH 03079
(603) 893-6131

FREDERICK H. MALTZ
(see Newsletter Editor)

NORMAN D. MILLER
(see Vice President)

CHRISTIAN DE MOUSTIER
Masrine Physical Lab.
Scripps Instit. of Ocean.
La Jolla, CA 92093
(619) 534-6322

E.L. NELSON
Computer Science Dept.
Texas A&M University
College Station, TX 77843
(409) 845-0085

PIERRE SABATHE
(see Vice President)

JOSEPH R. VADUS
Director, International Programs
Center for Ocean Resource
Technology
University of Hawaii
8500 Timber Hill
Potomac, Maryland 20854 USA
(301) 299-5477; (301) 983-4825 (FAX)
j.vadus@erols.com

THOMAS F. WIENER
ARPA/STO
3701 North Fairfax Drive
Arlington, VA 22203
(703) 516-7405; (703) 522-6108 (FAX)
twiener@arpa.mil

DAVID E. WEISSMAN
Hofstra University
Dept. of Engineering
Hempstead, N.Y. 11550
(516) 560-5546

ROBERT C. SPINDEL
(see Associate Editors)

ROBERT W. FARWELL
(see Associate Editors)

ANTHONY J. HEALEY
Dept. of Mechanical Engineering
Naval Postgraduate School
Monterey, CA 93943
(408) 656-3462; (408) 656-2238 (FAX)
healey@me.nps.navy.mil

STANLEY G. CHAMBERLAIN
Raytheon Electronic Systems
MS T3TN46, 50 Apple Hill Dr.
Tewksbury, MA 01876
(508) 858-5012; (508) 585-1955 (FAX)
s.chamberlain@ieeee.org

FRANK M. CAIMI
Harbor Branch Oceanographic Inst.
5600 Old Dixie Highway
Fort Pierce, FL 34946
(407) 465-2400 ext. 256;
(407) 464-9094 (FAX)
caimi@hboi.edu

EX-OFFICIO

Jr. Past President

JOSEPH CZIKA JR.
T.A.S.C., Inc.
12100 Sunset Hills Road
Reston, VA 22090-3221
(703) 834-5000 ext 7122
(703) 318-7900 (FAX)
j.czika@ieeee.org

Sr. Past President

GLEN N. WILLIAMS
Computer Science Dept.
Texas A&M University
College Station, TX 77843-3112
(409) 845-5484
g.williams@ieeee.org

Membership Development

JAMES S. COLLINS

Nominations

JOSEPH CZIKA JR.

Chapters

JAMES GLYNN

Publicity

Journal Editor

WILLIAM M. CAREY

Standards

JAMES S. COLLINS

Awards and Fellows

GLEN N. WILLIAMS

Fellows Evaluation

W.A. VON WINKLE

Publications Review Board

GLEN N. WILLIAMS

Newsletter Editor

FREDERICK H. MALTZ

Pace

NORMAN D. MILLER

TAB Engineering Research and Development Policy Committee

JOSEPH R. VADUS

TAB Public Relations Committee

FREDERICK H. MALTZ

ASSOCIATE EDITORS

ARTHUR B. BAGGEROER
Dept. Ocean Eng. — Rm. 5-204
Mass. Inst. Technology
Cambridge, MA 02139
(617) 253-4336
abb@arc.mit.edu

D. RICHARD BLIDBERG
Autonomous Undersea
Systems Institute
86 Old Concord Turnpike
Lee, NH 03824
(603) 868-3221
Fax: (603) 868-3283
blidberg@ausi.org

PETER H. DAHL
Applied Physics Lab.
Univ. of Washington

1013 N.E. 40th Street
Seattle, WA 98105
(206) 543-2667
dahl@apl.washington.edu

CHRISTIAN DE MOUSTIER
Marine Physical Lab.
Scripps Inst. of Oceanography
La Jolla, CA 92093
(619) 534-6322
cpm@mpl.ucsd.edu

ROGER F. DWYER
43 South Cobblers Cove
Niantic, CT 06357
(860) 739-0237
r.dwyer@ieeee.org

GEOFF EDELSON
Sanders
Advanced Systems Directorate
MAN6-2000
P.O. Box 868

Nashua, NH 03061-0868
(603) 645-5735

Fax: (603) 645-5731
edelson@sanders.com
JOHN E. EHRENBERG
Boeing Defense and Space Group
P.O. Box 3999
MS 84-41
Seattle, WA 98124-2499
(206) 773-1442
ehrejexoo@ccmail.boeing.com

DAVID M. FARMER
Institute of Ocean Sciences
PO Box 6000
9860 W. Saanich Road
Sidney BC V81 4B2 Canada
(250) 363-6591
Fax: (250) 363-6798
dmf@ios.bc.ca

ROBERT W. FARWELL
Code 243
Naval Research Lab.
Stennis Space Center, MS 39529
(601) 688-4875

RENE GARELLO
Telecom Bretagne
Dpt. ITI BP 832
29285 Brest Cedex France
(33) 2 98 00 13 71
Fax: (33) 2 98 00 10 98
rene.garello@enst-bretagne.fr

MALCOLM L. HERON
Physics Dept.
James Cook University
Townsville, Queensland 4811
Australia
61 77 81 4127

DAVID P. KNOBLES
EVG

Applied Research Labs
Univ. of Texas at Austin
P.O. Box 8029
Austin, TX 78713-8029
(512) 835-3687
knobles@arlut.utexas.edu

JOHN J. LEONARD
Ocean Engineering Department
Room 5-422
Mass. Inst. Technol.
77 Massachusetts Ave.
Cambridge, MA 02139
(617) 253-5305

Fax: (617) 253-8125
jleonard@mit.edu
JAMES F. LYNCH
Ocean Physics and Engineering
203 Bigelow Building
Woods Hole Oceanographic Institution
Woods Hole, MA 02543
(508) 457-2000 ext. 2230
jlynch@whoi.edu

HISAAKI MAEDA
Institute of Industrial Science,
University of Tokyo
7-22-1, Roppongi, Minatoku,
Tokyo 106, Japan
+81-3-3402-6231 ext. 2255
Fax: +81-3-3402-5349
maedah@iis.u-tokyo.ac.jp
ARYE NEHORAI
Dept. Elect. Eng. And Computer Sci.
Univ. of Illinois at Chicago
851 S. Morgan St., Rm. 1120 SEO
Chicago, IL 60607-7053

(312) 413-0024
nehorai@eecs.uic.edu
JOHN D. PENROSE
Centre for Marine Science & Tech.
Curtin University
Kent St., Bentley, W. Australia 6102
Australia

61 9 351 7380
tpenrosej@cc.currin.edu.au
ROBERT C. SPINDEL
Applied Physics Laboratory
University of Washington
1013 N.E. 40th Street
Seattle, WA 98105
(206) 543-1310
spindel@apl.washington.edu

STERGIOS STERGIPOULOS
DND/DCIEM
1133 Sheppard Ave. West
North York, ON M3M 3B9
Canada
stergios@dciem.dnd.ca

RICHARD STERN
Applied Research Lab.
Penn State Univ.
P.O. Box 30
State College, PA 16804
(814) 865-6344
rs@arl.vax.arl.psu.edu

EDMUND J. SULLIVAN
Code 82101
Naval Undersea Warfare Ctr.
Newport, RI 02841
(401) 832-2011
sullivanvej@tech.npt.nuwc.navy.mil

IEEE OCEANIC ENGINEERING SOCIETY TECHNOLOGY COMMITTEE CHAIRPERSONS

Underwater Acoustics, ROBERT FARWELL
Severe Environments Instrumentation, PAULA A. LAU
Autonomous Unmanned Underwater Vehicles, CLAUDE P. BRANCART
Current Measurements, A. J. WILLIAMS
Marine Communication & Navigation, JOHN ILLGEN
Modeling, Simulation & Data Bases, E. GOUGH

Oceanographic Instrumentation, OREST DIACHEK
Remote Sensing, DAVID E. WEISSMAN
Sonar Signal Processing, ROGER DWYER
Non-Acoustic Image Processing, FRANK M. CAIMI
Neural Networks for Oceanic Engineering, WILLIAM PORTO
Technical Committees Coordinator, STANLEY G. CHAMBERLAIN