



Canadian Meteorological
and Oceanographic
Society

La Société Canadienne
de Météorologie et
d'Océanographie

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IMPORTANT NOTICE

CMOS has moved!!

Please note that the Canadian Meteorological and Oceanographic Society's Business Office has moved to:

**P.O. Box 334
Newmarket, Ontario.
L3Y 4X7**

Tel: (416) 898-1040 Fax: (416) 898-7937

This address should henceforth be used for correspondence dealing with membership, subscriptions and all financial matters (e.g., renewals, address changes, CMOS publications, requests for back issues, payments of invoices). Note that, in addition to telephone, facsimile is now available at that address.

Correspondence normally addressed to the Executive Director and to members of the Executive, and all courier mail can continue to be addressed to:

CMOS Executive Director
Suite 903
151 Slater Street
Ottawa, Ontario. K1P 5H3

Tel: (613) 990-0300 (New number)

AVIS IMPORTANT

SCMO a déménagé!

Prière de noter que le bureau administratif de la Société Canadienne de Météorologie et d'Océanographie a déménagé à:

**C.P. 334
Newmarket (Ontario)
L3Y 4X7**

Tél: (416) 898-1040 Fax: (416) 898-7937

Cette adresse doit donc être utilisée pour toute correspondance touchant l'adhésion des membres à la Société, les souscriptions et les problèmes financiers (i.e., renouvellements, changements d'adresse, paiements, publications de la SCMO). Prière de noter qu'un service de facsimilé est disponible à cette nouvelle adresse.

La correspondance normalement adressé au Directeur exécutif et aux membres de l'Exécutif, et toute la correspondance expédiée par courrier peuvent continuer d'être envoyées à l'ancienne adresse:

Directeur exécutif de la SCMO
903-151, rue Slater
Ottawa (Ontario) K1P 5H3

Tél: (613) 990-0300 (Un nouveau numéro)

NEWS FROM CMOS HEADQUARTERS

The business and administrative work handled previously by the Canadian Association of Physists has been transferred to a firm in Newmarket. While difficulties may occur during the transition period, there is every expectation that the new services will fully meet members' requirements. If you have any suggestions for improvements in service, do not hesitate to contact the Business Office or the Executive

Director. Please inform the Business Office promptly of any address change so that they can ensure that you continue to receive the Newsletter and CMOS publications. The Business office will inform the relevant CMOS Centres/Chapters of changes in their membership.

Executive Director, Uri Schwarz

NEW POSITION FOR AES SCIENTIST

After almost 11 years as a Senior Research Scientist with the Boundary-Layer Research Division of the Atmospheric Environment Service (AES), Peter A. Taylor has accepted a position, effective 1 October, 1988, as Professor of Atmospheric Science at York University in Toronto. He will serve as Chairman of their Department of Earth and Atmospheric Science for the next 5 years. Taylor's research interests are focussed on atmospheric boundary layer-flow in complex terrain, and he has recently led both field experiments and modelling studies for AES. Prior to his time at AES he taught Mathematics at the University of Toronto and Physical Oceanography at Southampton University, England. He holds B.Sc. and Ph.D. degrees in Mathematics from Bristol University, England.

At York University, Taylor will continue with his boundary-layer modelling and mesoscale research in addition to taking over the Department's administrative reins. The Meteorology program at York includes undergraduate and graduate programs. The one-year 'Certificate of Meteorology' program attracts about a dozen students a year. Taylor's research interests in micro- and meso-scale meteorology and his interests in field experimental studies will complement those of the existing faculty members. He also hopes to expand the Department's links with the Atmospheric Chemistry group at York.

GRADUATE SCHOLARSHIPS AWARDED

Graduate students registered in Ph.D. programs at 3 Canadian universities are the successful recipients of \$2,500 scholarships for research in forest climate awarded by the Atmospheric Environment Service/Canadian Forest Service Working Group in Forest Climatology.

Charles P. Bourque (Faculty of Forestry, University of New Brunswick) will study the atmospheric processes involved in the deposition and absorption of SO₂ on a coniferous forest downwind from a thermal generating station. He will develop and validate a model to assess SO₂ impacts on the forests.

Peter H. Scott (Department of Zoology, University of Toronto) will study the changes in the annual heat availability on the establishment and subsequent stability of the open forest ecosystem near Churchill, Manitoba, as a means of assessing the impact of climatic change on the northern treeline.

Robert A. Wright (Department of Forest Science, University of Alberta) will study the pattern of spatial variation in the drought resistance of jack pine and the influence of imposed drought on genetic diversity in laboratory jack pine plantations.

NEW PROFESSIONAL SOCIETY

A new professional society for natural hazards is being founded. The objectives of the International Society for the Prevention and Mitigation of Natural Hazards, as it is being official known, are to promote the research of all aspects of natural hazards, to promote the distribution of preparedness and emergency-response plans for all countries, and to promote the formulation and implementation of education programs on hazards prevention and mitigation. The Society will be known as the Natural Hazards Society (NHS).

The founding organizational meeting was held on August 19, 1988, in Ensenada, Mexico. At this meeting, attended by about 100 participants from 14 countries, a constitution and Bylaws for the Society was adopted. The following officers were elected:

President:	Dr. M.I. El-Sabh (Canada)
Vice-president:	Dr. G. Pararas-Carayannis (USA)
Secretary:	Dr. T.S. Murty (Canada)
Treasurer:	Dr. S. Venkatesh (Canada)
Representatives-	Dr. S.F. Farreras (Mexico)
at-Large:	Dr. S.K. Ghosh (India)
	Dr. F.S. Liu (China)

The Society shall hold at least one international scientific meeting every two years in different parts of the world, with special special symposia on topical natural disaster events or natural hazard studies. In addition, the NHS cosponsors appropriate scientific meetings, summer schools, or workshops organized by other bodies. Natural Hazards: An international Journal of Hazards Research and Prevention is now the official scientific publication of the Society.

Membership is open to all international scientists and policy-makers actively engaged in natural hazard studies or the prevention and mitigation of natural disasters. It may be secured by individuals or through societies and institutes. Dues for 1988 are US \$20 per year for individuals and US \$5 for students. Individuals affiliated to the Society are entitled to subscribe to Natural Hazards at a reduced rate, and to attend the bi-annual meetings at a reduced registration fee.

For general information about the Society, or membership enquiries and applications, write to one of the following:

Professor M.I. El-Sabh	Dr. T.S. Murty
President	Secretary
Natural Hazards Society	Natural Hazards Society
310 Allée des Ursulines	P.O. Box 6000
Rimouski (Québec)	Sidney, B.C.
Canada G5L 3A1	Canada V8L 4B2

CMOS AWARDS

The Canadian Meteorological and Oceanographic Society established the Prizes and Awards Committee to focus attention on the achievements of its members and their influence on the sciences of meteorology and oceanography in Canada. Nominations are now being solicited for the various award and prize categories in our Society. Cooperation of the membership in identifying individuals for whom an award or prize would be appropriate is requested.

Outstanding achievers in the fields of oceanography and/or meteorology should be recognized by their CMOS peers and members of the Canadian community. This awards program is important to CMOS as it brings credit and recognition to those who deserve it. Both media and Society attention is focussed on the recipients, thereby highlighting important work and Canadian contributions to specific science programs. Full details can be found on next page.

Please give serious consideration to this request. A list of the various awards follow. Please note the established, approved and necessary criteria for each award or prize. It is essential that your written recommendation for a particular award be supported by complete documentation, illustrating that the candidate has met all the prize requirements.

The deadline for nominations to be received by the undersigned, complete with supporting documentation, is 27 January, 1989. Thank you for your cooperation.

J.B.Merrick
Secretary, Prizes and Awards Committee
Atmospheric Environment Service
1496 Bedford Highway
Bedford, Nova Scotia. B4A 1E5

Tel: (902) 426-9181

Please note:

1. The deadline for submissions is rigidly observed due to other Committee deadlines and the high volume of copying required. Complete submissions must be in the hands of the Secretary by that date and material indicated 'to follow' will not be accepted. Allow sufficient time for mail or courier. Some couriers do not offer overnight service to Halifax from all regions of Canada. Also, first class mail from Vancouver (for example), has on occasion taken over ten days to reach Halifax. If desired, the Secretary of the Prizes and Awards Committee has access to an automatic telecopier. Please contact the Secretary for the current phone number.

2. Some prize categories specify that a nominee must be a member of CMOS. Nominees in these categories who are not members of CMOS on the date which nominations close will be disqualified and their nomination submissions will not be considered. Membership status will be confirmed with the Executive Director of CMOS by phone.
3. Receipt of submissions by the Secretary will not be acknowledged unless requested. Acknowledgement when requested, will be by telephone.
4. The current title, full address and phone number of the nominee must accompany the submission.
5. Nominees from previous years, who have not received awards may be renominated. All criteria provided above apply to renominations. All renominations must be complete with justification since nomination material is not retained from year to year.

PRIZES AND AWARDS CRITERIA

The criteria listed below are extracted from the bylaws of the Society.

a) PRESIDENT'S PRIZE

May be awarded each year to an member or members of CMOS for a recent paper, book or contribution of special merit in the field of either meteorology or oceanography. The paper or work;

1. MUST have been accepted for publication in Atmosphere-Ocean, Climatological Bulletin or another refereed journal; or
2. MUST have been presented to the Society membership at a national or local meeting.

b) THE DR. ANDREW THOMSON PRIZE IN APPLIED METEOROLOGY

May be awarded for an outstanding contribution in the field of applied meteorology. The nominee MUST be a member of the Society.

c) GRADUATE STUDENT PRIZES

May be awarded for contributions of special merit in meteorology and/or oceanography by graduate students.

CMOS AWARDS (continued)

d) THE RUBE HORNSTEIN PRIZE IN OPERATIONAL METEOROLOGY

May be awarded to an individual for providing outstanding operational meteorological service in its broadest sense, but excluding the publication of research papers as a factor, unless that research is already incorporated as an aid in the day-by-day performance of operational duties. The work for which the prize is granted may be cumulative over a period of years or may be a single notable achievement.

e) PRIZE IN APPLIED OCEANOGRAPHY

May be awarded for a significant contribution to the application of oceanography in Canada. The nominee MUST be a member of the Society.

f) THE J. P. TULLEY MEDAL IN OCEANOGRAPHY

May be awarded to a person whose scientific contributions have had a significant impact on Canadian Oceanography.

g) ENVIRONMENTAL CITATIONS

May be awarded to individuals or groups who have in the previous year, made some outstanding contribution in helping to alleviate pollution problems, in promoting environmental improvements, or in developing environmental ethics.

h) CITATION FOR OUTSTANDING RADIO AND TELEVISION WEATHER PRESENTATION

Only Canadian television weather productions will be considered. Any regular ongoing weather program series may be submitted for consideration in the Citation review process. VHS recordings of three consecutive telecasts will be required, along with the date/time of the programs, name of the presenter, station, city. VHS tapes need to be accompanied by written justifications. Submissions may be made by either Centres or by individual members.

Submissions should be based on the programs' informative and/or educational value, appeal to the public, level of technical and professional presentation. Centres are strongly encouraged to participate in the review of television weather programs in their area. Centres determining that a routine weather program meets the listed 'Criteria' should consider nominating the program to the Prizes and Awards Committee. Centres whose nominations are not selected for a National Award may wish to recognize a regional winner in their own region.

1988 A.G. HUNTSMAN AWARD

The recipient of the 1988 A.G. Huntsman Award is Dr. C.I. Wunsch: the Cecil and Ida Green Professor of Physical Oceanography, Department of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology (MIT). The award by the Bedford Institute of Oceanography, Dartmouth, Nova Scotia, recognizes excellence of research in and outstanding contribution to the marine sciences. It is presented annually in one of three categories: marine geosciences, physical/chemical oceanography, or marine biology. This year was for physical/chemical oceanography.

Carl Wunsch completed his doctoral degree in Geophysics at the MIT in 1966. His thesis exploited records of sea level observations from the Pacific Ocean to give new insights into the dynamics of long-period tides. Although he continued to use sea level records to explore the dynamics of the open ocean and its boundary currents, beginning in the mid-seventies he concentrated on the problem of measuring and interpreting the phenomenon of internal waves in the ocean. He led a team of engineers from MIT who built instruments and set up an array in Bermuda. With this array and other observations he was able to construct a spectrum of temperature fluctuations in the main thermocline at periods of two minutes to two years. Dr. Wunsch conducted laboratory experiments and formulated models to demonstrate the behaviour of internal waves on continental slopes and their role in ocean mixing.

Later in the seventies, Professor Wunsch was a scientific leader in two international programs. These experiments enabled the oceanic mesoscale eddy fields to be described in detail for the first time. Presently, he is looking at the problem of determining the general circulation of the ocean. Using techniques he proposed and data from the North Atlantic, he was able to obtain a consistent 3D circulation pattern and a new view of the ocean.

In a testimonial, Dr. B. Petrie said:

"Carl Wunsch is a successful educator as well as a research scientist. An energetic and eclectic scientist, he is equally at home on a research ship, at a computer terminal, in a lecture theatre, or at an international scientific meeting."

Source: An address by Dr. B. Petrie.

EDITOR'S COLUMN

If you wish to submit items for the CMOS Newsletter, please send to Malcolm Still, Atmospheric Environment Service, 4905 Dufferin Street, Downsview, Ontario. M3H 5T4. The deadline for the February issue is February 3, 1989.

SEMINARS / SÉMINAIRES

British Columbia Ministry of Environment
 Greater Vancouver Regional District
 Environnement Canada
 Association Petroliere pour la Conservation
 de l'Environnement Canadien (APCE)
 APCA (B.C. & Yukon Chapter)

Vancouver, Canada
 27-28 février, 1989

Le Problème Contemporain des Oxydants

Ce séminaire:

- permettra l'échange d'informations scientifiques sur les problèmes régionaux de hauts niveaux ambiants d'ozone au Canada, sur la modélisation atmosphérique et sur les inventaires d'émissions
- permettra aux participants d'en apprendre plus les contrôles mis en application ou proposés dans d'autres juridictions et sur les problèmes rencontrés
- permettra de faire le point sur les courants de pensée actuels dans la communauté scientifique en ce qui a trait aux alternatives de contrôle viables pour le futur.

Pour plus d'information, veuillez communiquer avec:

M. Bernard Madé Environnement Canada (819) 953-1135	M. D.M. Bisset Shell Canada (403) 232-4005	M. E. Wituschek Environnement Canada (604) 666-2815
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Department of Meteorology, McGill University

Bishops University, Lennoxville, Québec
 July 10-14, 1989

The theme of the 16th Stanstead Seminar is: High-latitude climate processes, with special emphasis on large-scale air/ice/sea interactions. The daily program will consist of two comprehensive papers in the morning and two in the afternoon, thus providing ample time for discussion and interaction. Invited speakers include Dr. F. Bryan (National Center for Atmospheric Research), Dr. H. Cattle (British Meteorological Office), Dr. E. LeDrew (University of Waterloo), Dr. P. Lemke (Max Planck Institute) and Dr. J. Walsh (University of Illinois). Those interested in presenting a paper or obtaining more information, please contact Dr. Lawrence A. Mysak, Climate Research Group, Department of Meteorology, McGill University, 805 Sherbrooke St. W, Montreal, Québec. H3A 2K6 Tel: (514) 398-3759.

British Columbia Ministry of Environment
 Greater Vancouver Regional District
 Environment Canada
 Petroleum Association for the Conservation
 of the Canadian Environment (PACE)
 APCA (B.C. & Yukon Chapter)

Vancouver, Canada
 February 27-28, 1989

The Contemporary Oxidant Problem

This seminar will:

- bring together scientific information on regional ozone problems in Canada, atmospheric photochemical modelling and emissions.
- provide an opportunity to learn about ozone control approaches tried in other jurisdictions and their shortcomings.
- provide current thinking in the scientific community on future ozone control approaches.

For more information, please contact:

Mr. E. Wituschek Environment Canada (604) 666-2815	Mr. D.M. Bisset Shell Canada (403) 232-4005	Mr. B. Madé Environment Canada (819) 953-1135
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ADVERTISING RATES

Rates based on black and white camera-ready copy. Sizes (inches) are full page (7.5x9.5), 1/2 page (3.5x9.5) and 1/4 page (3.5x4.5). Other charges apply where typesetting or artwork are required. Distribution per issue is approximately 1000.

Advertisement Type	Full Page	1/2 Page	1/4 Page
Commercial **	\$150.00	\$80.00	\$50.00
Position Vacancy	\$100.00	\$60.00	\$40.00
Employment Wanted	----(Free to Members only)----		

** Corporate and Sustaining members advertisements are charged at the Position Vacancy rate.

CONFERENCES / CONFÉRENCES

CMOS XXIII ANNUAL CONGRESS

Atmospheric and Oceanic Hazards:
Modeling and Observations

Université du Québec à Rimouski
Rimouski, Québec, Canada
June 6-9, 1989

General Theme

January 1, 1990, will see the beginning of the Hazard Reduction Decade. The United Nations General Assembly has designated the 1990's as a decade in which the international community will pay special attention to natural disaster reduction. All papers related to physical, biological and chemical hazards in the atmosphere and ocean are especially welcome.

Special Sessions

Besides the usual sessions in meteorology and oceanography, there will be special sessions on atmospheric and oceanic chemistry, biological oceanography, lagoons and bays, the Hazard Reduction Decade, JGOFS and WOCE, the St. Lawrence system, Hudson and James Bays, and El-Niño.

The Venue

Rimouski is located on the south shore of the St. Lawrence estuary, near the Gaspé peninsula. The nearest airport is in Mont-Joli (with limousine service to all major hotels in Rimouski). The local institutions include le Département d'Océanographie de l'Université du Québec à Rimouski (DOUQAR), l'Institut National de la Recherche Scientifique (INRS-Océanologie), l'Institut Maurice Lamontagne (IML), le groupe de recherche en Gestion des Ressources Maritimes (GERMA) and l'Institut Maritime du Québec (IMQ).

For Additional Information:

Contact Dr. Vladimir G. Koutitonsky (Local Arrangements Committee), INRS-Océanologie, 310 Des Ursulines, Rimouski, Québec, Canada, G5L 3A1, tel.: (418) 724-1763, or Dr. Yves Gratton (Scientific Program Committee), Département d'Océanographie, UQAR, 300 Des Ursulines, Rimouski, Québec, Canada, G5L 3A1, tel.: (418) 724-1761.

The deadline for all abstracts, not to exceed 300 words each, must reach the Chairman of the scientific Program committee, at the above-mentioned address, before February 1, 1989 (Fax(INRS): (418) 723-7234). There will be a \$20.00 penalty for late submission.

SCMO XXIII CONGRÈS ANNUEL

Les Catastrophes Atmosphériques et Océaniques:
Modélisation et Observations

Université du Québec à Rimouski
Rimouski, Québec, Canada
juin 6-9, 1989

Le Thème

La décennie débutant le premier janvier 1990 sera celle de la prévention des catastrophes. L'Assemblée générale des Nations Unies a désigné la dernière décennie du vingtième siècle comme celle où la communauté internationale devra se pencher en priorité sur la prévention des catastrophes naturelles. Toutes les communications traitant des catastrophes physiques, biologiques ou chimiques dans l'atmosphère ou dans l'océan seront particulièrement bienvenues.

Sessions Spéciales

En plus des sessions habituelles en météorologie et en océanographie, nous prévoyons des sessions spéciales sur la chimie atmosphérique et océanique, l'océanographie biologique, les lagunes et les baies, la décennie de prévention des catastrophes, les programmes JGOFS et WOCE, le système du St-Laurent, les baies James et d'Hudson, El-Niño.

L'Endroit

Rimouski est située sur la rive sud du St-Laurent, près de la péninsule gaspésienne. L'aéroport le plus près est situé à Mont-Joli (avec un service de limousine desservant les grands hôtels de Rimouski). Les organismes locaux comprennent: le Département d'Océanographie de l'Université du Québec à Rimouski (DOUQAR), l'Institut National de la Recherche Scientifique (INRS-Océanologie), l'Institut Maurice Lamontagne (IML), le groupe de recherche en Gestion des Ressources Maritimes (GERMA) et l'Institut Maritime du Québec (IMQ).

Pour de plus amples informations:

Contactez M. Vladimir G. Koutitonsky (Comité des arrangements locaux), INRS-Océanologie, 310 Des Ursulines, Rimouski, Québec, Canada, G5L 3A1, tel.: (418) 724-1763, or M. Yves Gratton (Comité de la programmation scientifique), Département d'Océanographie, UQAR, 300 Des Ursulines, Rimouski, Québec, Canada, G5L 3A1, tel.: (418) 724-1761.

La date limite pour tous les résumés, d'un maximum de 300 mots, devront être acheminés au responsable de la programmation scientifique, à l'adresse mentionnée plus haut, avant le 1 février, 1989, sous peine d'une amende de \$20.00 (Fax(INRS): (418) 723-7234).

CONFERENCES / CONFÉRENCES

The Okhotsk Sea & Cold Ocean Research Association

The 4th International Symposium on Okhotsk Sea & Sea Ice

Mombetsu, Hokkaido, Japan
February 5-7, 1989

The Sea of Okhotsk is known as Japan's only freezing sea. Up to 80% of the Okhotsk surface is ice covered during the winter, hampering navigation and fishing operations. It is true that sea ice increases the marine productivity but it can cause problems such as marine accidents, damage to equipment and rigs that are in the water, and damage to field crops due to cold weather. Due to the 200 nautical mile limit, inshore fisheries have become more active, requiring progress in countermeasures to sea ice. With development of seabed resources such as oil and gas, advanced studies in marine structures and ice engineering are in great demand.

The Research Association was established by participants from the previous 3 symposia to organize the scientific programs for future symposia. The objectives of this annual Symposium are to promote the advancement of all ice-related studies such as oceanography, meteorology, biology and fisheries, to explore those aspects that may be common in various fields, to review latest developments in these fields, and to outline new directions for future research.

The meeting will consist of lectures, poster sessions, exhibits and field trips. Anyone wishing to volunteer to chair a special symposium session on some related topic, which will be informal and will be held in the evening after the formal sessions, should submit a plan to the Scientific Program Committee.

The language of the Symposium will be English and Japanese. Correspondence may also use these two languages. The deadline for abstracts and manuscripts has passed. For more information please contact:

Professor Masaaki Aota
Sea Ice Research Laboratory
Hokkaido University
Minamigaoka 6-4-10, Mombetsu
Hokkaido 094 Japan

Telephone: (01582) 3-3722
Telefax: (01582) 3-5319
Telex: 932261 ILTSHU J:

European Geophysical Society

XIV General Assembly Joint Symposium 5: Chaos, Turbulence and Nonlinear Variability in Geophysics

Barcelona, Spain
March 13-17, 1989

This symposium deals with the nonlinear variability and/or chaotic or turbulent behaviour of geophysical phenomena on wide ranges of scales. It is intended to pursue confrontation between theories and experiments, especially on scaling/fractal behaviour and related hierarchies of critical exponents (multifractality).

The call for papers has passed. Further information may be obtained from:

EGS Office: A.K. Richter
Postfach 4, Max Planck Str. 1
D-3411 Katlenburg-Lindau
Fed. Rep. Germany
Tel: (49)-5556-1440

Convenors: D. Schertzer
EERM/CRMD, 2 Av. Rapp
F-75007 Paris, France
Tel: (33)-1-45567294

S. Lovejoy
Physics Dept., McGill University
3600 University St.
Montreal, Quebec
H3A 2T8, Canada
Tel: (514) 398-6537

EDITOR'S NOTE ON CONFERENCE ANNOUNCEMENTS

Announcements of conferences are welcomed to be placed in this newsletter. To facilitate their publication, the editor would appreciate if those that submit prepared copy could follow these guidelines:

- copy should be camera-ready black and white as colours do not necessarily duplicate well
- appropriate sizes (in inches) are full page (7.5x9.5), 1/2 page (3.5x9.5) and 1/4 page (3.5x4.5).

CONFERENCES / CONFÉRENCES

Canadian Institute of Forestry
Canadian Meteorological and Oceanographic Society

Fire and Forest Meteorology in a Changing Environment: New Technologies and Concerns

Ottawa, Ontario, Canada
April 17-21, 1989

This international conference will be held April 17-21, 1989, at the Skyline Hotel. The conference theme is "Fire and Forest Meteorology in a Changing Environment: New Technologies and Concerns." It is being sponsored by the Atmospheric Environment Service, the Canadian Forestry Service, le Ministère de l'Énergie et des Ressources du Québec, and the Ontario Ministry of Natural Resources with the cooperation of the American Meteorology Society, the Canadian Institute of Forestry, the Canadian Meteorological and Oceanographic Society, and the Society of American Foresters.

The purpose of the 10th Conference on Fire and Forest Meteorology is to exchange research and management information relevant to fire and forest meteorology with particular emphasis on the evolution of science and management in a rapidly changing technological environment. Participants are encouraged to use their free-time to meet fellow scientists and managers to share their ideas and viewpoints.

Paper and interactive presentations will concentrate on the theme in terms of lightning and forest meteorology, prescribed burning and fire effects, fire behaviour/danger, fire management, fire weather, climate change, smoke management and air quality, and forest health and productivity. Displays by relevant fire or meteorological equipment manufacturers and distributors as well as computer manufacturers will also be present during the conference. A half-day field trip of southeastern Ontario with forest-orientated stops is also scheduled.

For a brochure or further information, contact one of the Co-chairpersons, Mike D. Flannigan (Canadian Forestry Service) at 613-589-2880) or Dr. Paul Woodard (University of Alberta) at 403-432-4413.

Federal Panel on Energy Research and Development (PERD)
Canadian Meteorological and Oceanography Society (CMOS)

2nd International Workshop on Wave Hindcasting and Forecasting

Vancouver, British Columbia
April 25-28, 1989

An international workshop on wave hindcasting and forecasting, sponsored by PERD and CMOS, will be held in Vancouver. This workshop will follow on the success of the first workshop, held in Halifax, Nova Scotia in September, 1986.

The objectives of the workshop are:

- to provide a forum for the exchange of ideas and information related to practical applications of wave hindcasting and forecasting
- to discuss priorities for future research and development

Sessions will cover the following topics:

- operational forecasting
- user requirements (in design and operations)
- hindcasting procedures
- data collection/instrumentation
- incorporation of satellite wind/wave data
- wave/current interaction
- wave/ice interaction
- wind fields for wave hindcasting/forecasting
- shallow water and nearshore effects

For more information, please contact:

V.R.Swail
Atmospheric Environment Service
4905 Dufferin Street
Downsview, Ontario M3H 5T4
Canada

Telephone: (416) 739-4347

CONFERENCES / CONFÉRENCES

Georgia Institute of Technology

International Conference on Global and Regional Environmental Atmospheric Chemistry

Beijing, China
May 3-10, 1989

The conference aims to bring together the diverse elements of the international atmospheric sciences community to discuss the growing matrix of environmental problems and new advances related to the chemistry of the global and regional atmospheres. The call for papers deadline has passed but other participants are welcome to attend.

The major topic areas are:

- Homogeneous and Heterogeneous Chemical Transformations
- Global Atmospheric Chemistry
 - Ozone
 - Fixed Nitrogen Cycle
 - Sulphur Cycle
 - Carbon Cycle
 - Halogens
 - Trace Elements
 - Aerosol Particles
- Atmospheric Chemistry and Biochemical Cycle
- Biological and Atmospheric Sources
- Wet and Dry Removal Processes
- Global Distributions and Transport
- History & Evolution of the Earth's Atmosphere
- Climate
- Regional Atmospheric Chemistry
 - Ozone and Other Photochemical Oxidants
 - Acid Deposition

The conference will be held at the Friendship Hotel in Beijing, China. The social program includes a visit to the Great Wall and Ming Tombs, a tour of the Summer Palace and other points of interest. There is also a program for accompanying persons. The official language of the conference is English and no simultaneous translation will be provided.

For more information, contact the Conference Coordinator:

Ms. Rita Bryan
School of Geophysical Sciences
Georgia Institute Of Technology
Atlanta, Georgia 30332

Telephone: (404) 894-3893

The Commission of the European Communities

Riso International Conference Environmental Models: Emissions and Consequences

Riso National Laboratory, Denmark
May 22-25, 1989

The development of a comprehensive computer model able to predict in detail the full consequences of emissions from energy production and other industrial activities is not yet possible. Nevertheless it is important to link the calculations of emissions and emission reduction measures with the environmental consequences as far as these are understood at present. The conference will focus on advanced models for the calculation of:

- emissions from energy production and conversion and other industrial activities
- environmental consequences, physical, biological and economic
- implications of emission reduction measures
- emissions during normal operation as well as accidents

The conference will address both the basic scientific aspects of model development and experience with practical applications of environmental models, e.g., in public planning and administration. The conference will aim at bringing together scientists, economists and decision makers with a mutual interest in the planning of emission reductions and alleviating the damage to the environment.

Sessions will be held in the Neils Bohr Auditorium at Riso, located 30 km west of Copenhagen. Riso is the largest centre for scientific research and development in Denmark. Registration and hotel reservation forms will be available soon. Notification of acceptance of abstracts will be given by January 1, 1989. The deadline for submission of full papers is April 15, 1989. The working language of the conference will be English. A full volume containing both invited and contributed papers will be published immediately after the conference.

Further information may be obtained from:

Conference Organizing Committee
Systems Analysis Department
Riso National Laboratory
Postbox 49
DK-4000 Roskilde, Denmark

Tel: 45 2 37 12 12

CONFERENCES / CONFÉRENCES

European Association for the Science of Air
Pollution (EURASAP) and the Aerosol Society

Aerosol and Background Pollution

University College, Galway, Ireland
June 13-15, 1989

An international conference organized by the European Association for the Science of Air Pollution (EURASAP) and the Aerosol Society will deal with the properties of particulate matter in the atmosphere remote from major pollution sources.

Papers and posters will be on the following topics:

- Background air pollution
- Natural sources of airborne particles
- Chemical composition of particles
- Volatility/hygroscopicity of airborne particles
- Gas/particle conversion
- Sampling techniques for airborne particulate matter
- Long range transport and removal of particles
- Optical effects and properties of aerosols

Further information may be obtained from Dr. T.C. O'Connor or Dr. S.G. Jennings, Department of Physics, University College, Galway, Ireland (Tel: (353)-91-24411).

Canadian Society of Agrometeorology (CSAM)

Agricultural Institute of Canada Annual Conference Agrometeorology Session

Montreal, Québec
July 9-13, 1989

"International Trade & Development" is the theme for the 1989 Agricultural Institute of Canada (AIC) annual conference. The Agrometeorology session provides an opportunity to share information on research, extension and/or service activities with agricultural relevance in the range of disciplines from micrometeorology to climatology. Agrometeorology is a broad area of study which combines the use of meteorology and climatology in applications involving plant science, pest control, engineering and others.

Further information may be obtained from Dr. Peter Schuepp, Department of Renewable Resources, MacDonald College of McGill University, 21111 Lakeshore Road, St. Anne-de-Bellevue, Quebec. H9X 1C0 (Telephone:(514) 398-7935)

Institute of Electrical and Electronics Engineers (IEEE)
International Union of Radio Science (URSI)
Canadian Remote Sensing Society

12th Canadian Symposium on Remote Sensing Quantitative Remote Sensing: An Economic Tool for the Nineties

Vancouver, Canada
July 10-14, 1989

This symposium will be held at the University of British Columbia. The theme of the conference emphasizes the increasing capabilities of remote sensing to provide economically valuable information and the conference will survey the full range of applications in all aspects of resource and environmental management.

Technical sessions will provide a balanced program of submitted and invited papers covering all aspects of remote sensing of the earth's surface and atmosphere. Most papers will be presented orally and then displayed as posters. The proceedings will be printed in advance and will be available at the conference.

The topics that will be addressed are:

- Global change studies, climate
- Economic issues
- Political issues
- Land applications
- Ocean applications
- Ice/Snow applications
- Atmospheric applications
- Extra-terrestrial applications
- Sensors
- Platforms
- Surface "truth"
- Scattering models
- Image and data processing

For more information, contact:

IGARSS'89/12th Canadian
Symposium on Remote Sensing
Suite 801
750 Jervis Street
Vancouver, B.C. V6E 2A9
Canada

Telephone: (604) 681-5226
Fax: (604) 681-2503
Telex: 0435 2848 VCR

CONFERENCES / CONFÉRENCES

International Association of Meteorology
and Atmospheric Physics (IAMAP)

Fifth Scientific Assembly of IAMAP

University of Reading
31 July to 11 August, 1989

IAMAP is to hold its Fifth Scientific Assembly at the University of Reading in the United Kingdom. The assembly will consist of invited lectures, four major symposia, topical symposia and workshops. The four major symposia will be:

- The Global Weather Experiment - 10 years later
- Atmospheric Trace Constituents and Global Change
- Global Energy and Water Fluxes
- Middle Atmosphere Sciences

There will be topical symposia on Boundary-layer Parameterization and Larger-scale Models, Effects of Aerosols and Cloud on Climate, Influence of Polar Regions on Global Climate, Large-scale Nonlinear Dynamics and Atmospheric Flows, Mesoscale Phenomena Analysis and Forecasting, Mesoscale Processes in Extratropical Cyclones, Meteorological Aspects of Mesoscale and Long-range Pollutant Transport, Meteorology and Climate of Mars, Noctilucent Clouds, Remote Sensing in Polar Regions, Remote Sensing of Atmospheric Constituents, and The Earth's Radiation Budget.

Anyone wishing to make a presentation (oral or poster) at any of the symposia should submit a camera-ready abstract plus two copies to the Scientific Programme Committee, IAMAP 89, Department of Meteorology, University of Reading, 2 Earley Gate, Reading, RG6 2AU, UK, by 15 February 1989. The abstract should not exceed 150 words and should be typed single spaced in black on a sheet of white paper. Maximum line length is 6 inches (15cm). Heading should consist of the following on successive lines: title in capital letters; name(s) of author(s); and affiliation, town and country. All lines in the heading and text should be aligned to the left. Each abstract should be accompanied by a separate page containing: symposium name; title of paper; name, address and telephone number of the author to whom all correspondence is to be sent; name of author to make presentation; and whether an oral or a poster presentation is preferred.

For further details and registration forms please contact Ross Reynolds at the Department of Meteorology, University of Reading, 2 Earley Gate, Reading, RG6 2AU, UK.

Fourth International Conference on Aerobiology

Stockholm, Sweden
3-7 September, 1990

The next IAA conference is scheduled for 1990 in Sweden. Field trips and short excursions are planned during the conference. A Congress dinner and other special events for both delegates and accompanying members will be arranged. The scientific program will be covered by these symposia:

- Significance of air pollution in aerobiology
- Aeroallergens
- Meteorological aspects of aerobiology
- Ecological aspects of aerobiology
- Bio-aerosols indoors
- Methodology, sampling and analyzing
- Microbiology and palynology
- Phytopathology

In addition there will be a general symposium to hear the reports of the committees and the working groups, and minisymposia on special topics.

The official language of the conference will be English and, if possible, there will be simultaneous interpretation in French and German. Papers can be presented orally and/or by poster. Further information on deadlines for submissions will be found in a later circular.

The conference is being organized by:

President: Dr. Siwert Nilsson

Scientific Secretaries:
Techn. Lic. Eva Henningson
Dr. Gunnar Bylin

Local Program Committee:
Dr. Mervi Hjelmroos

Further information may be obtained from:

Mrs Christina Tannlund
Administrative Secretary
4th International Aerobiological Conference
Konferensservice AB, Box 4037
S-171 04 SOLNA, SWEDEN

Tel: 46-8-82 02 15
Telex: 127 54 SINTAB S
Telefax: 46-8-730 15 67

CONFERENCES / CONFÉRENCES

Second International Conference on Acid Rain

Amsterdam, Netherlands
September 5-7, 1989

This conference follows directly from the highly successful meeting held in Lisbon, Portugal, in September, 1987. Acid rain encompasses a wide range of air pollution phenomena including gaseous and particulate pollutants, mists and precipitation, as well as their effects upon aquatic and terrestrial biota, surface and groundwaters, soils and inert materials. The conference will draw together these diverse themes and encourage a vigorous exchange of information between scientists and engineers. The program will include both plenary and parallel sessions at which both invited and contributed lectures will be presented. Time will be reserved for poster papers and for their review.

The major themes of the technical sessions are:

- Pollutant sources and atmospheric chemistry
- Atmospheric transport processes and modelling
- Deposition processes
- Catchment and soil processes
- Effects - aquatic ecosystems
- Effects - water supplies
- Effects - gaseous pollutants and terrestrial plants
- Effects - acid precipitation, terrestrial plants and soils
- Effects - buildings and other materials
- Aerosols and visibility
- The role of acid rain in forest decline
- Direct and indirect effects on human health
- Control strategies - technological, policy and economic implications

Papers will be welcomed on the above topics. Abstracts should be 200-300 words (6 copies) and submitted to the Secretariat by 15 March 1989. Abstracts should list the names of all authors and their affiliations, the name of the presenter with telephone, telex and facsimile number. Notification of acceptance will be given in April and completed manuscripts will be required by 30 May, 1989.

For further information contact:

International Acid Rain Conference
c/o Professor R. Perry
Public Health & Water Resource Engineering
Department of Civil Engineering, Imperial College
London SW7 2BU United Kingdom

Telex: 918351
Facsimile: (0)1 584 7596

Federal Research Advisory Board on Forest Decline/Air
Pollutants of the Federal Government and of the Lander

International Congress on Forest Decline Research: State of Knowledge and Perspectives

Friedrichshafen, Lake Constance
October 2-6, 1989

Forest decline is a global problem. It is the result of various combinations of natural and anthropogenic stressors. In central Europe, forests have been subjected to anthropogenic use for centuries or even millennia, and to anthropogenic air pollutants for decades. The Congress will focus on the type of forest decline observed in central Europe, but will take into consideration other regions.

The program will include:

- I. illustrations of research results at poster sessions;
- II. evaluations of the state of knowledge by invited speakers at plenary sessions devoted to the following themes;
 - decline features and monitoring
 - atmosphere, climate, soil and biotic factors as stressors
 - effects on plants and on soil organisms
 - case studies in Germany and abroad, forest ecosystem comparisons
 - water acidification
 - critical loads
 - silvicultural measures
- III. discussions of decline phenomena, research approaches and research results in case studies in the Federal Republic of Germany; and
- IV. excursions before and after the Congress

For the poster sessions, researchers with current findings related to the topics are invited to submit 200-word abstracts as soon as possible. The scientific committee will notify participants of acceptance.

The Congress will be held at Graf-Zeppelin-Haus, Friedrichshafen, Lake Constance, Federal Republic of Germany. The conference languages will be English and German. The registration fee, including a copy of the proceedings of the Congress, is DM 200.

POSITIONS VACANT

FISHERIES/PHYSICAL OCEANOGRAPHY

A postdoctoral position is available immediately in the Department of Biology at McGill University to work, in conjunction with scientists at the Bedford Institute of Oceanography (Dartmouth, N.S.), and NAFC (St. John's, Nfld.), on the Grand Bank of Newfoundland. The study involves the analysis and interpretation of adult and larval fish data, and moored and survey physical oceanographic measurements taken in 1985-88; participation in a continued field program in 1989; and the development of simple models for atmospheric-oceanographic-biological interactions. The nature of this work will require that the incumbent spend some time at the Bedford Institute of Oceanography each year.

Forward curriculum vitae, representative reprints, and names, addresses and phone numbers of at least three potential referees to:

Dr. W.C. Leggett
Room 211, Dawson Hall
McGill University
853 Sherbrooke Street West
Montreal, Quebec H3A 2T6

Division of Meteorology, Department of Geography

Applicants are sought for a tenure-track position as Assistant Professor beginning July 1, 1989, at the University of Alberta. A Ph.D. is required, and a strong record of grants and publications is desirable. Top candidates in all areas of meteorology will be considered. An ability and willingness to teach synoptic meteorology and numerical modelling is an asset. The salary range is \$33,144 to \$47,280. The Division of Meteorology is active in research in dynamic meteorology, physical meteorology and micrometeorology, and interested in satellite and synoptic meteorology. B.Sc., M.Sc. and Ph.D. programs in meteorology are offered.

Please send applications, reprints, and names and addresses of three referees to:

Dr. M.J. Hodgson, Chairman
Department of Geography, University of Alberta,
Edmonton, Alberta. T6G 2H4 Canada.

The closing date is January 31, 1989. The University of Alberta is committed to the principle of equity in employment.

CONSULTANTS' PAGES

Entries on the following pages are restricted to CNOS Accredited Consultants. The accreditation process commenced in December, 1986, and to date there are 24 Accredittees. As set out in the document "CNOS Guidelines for Accreditation," the criteria are:

- (1) The applicant must possess an appropriate undergraduate degree from a recognized university.
- (2) The applicant must possess at least one of the following types of specialized training:
 - (i) post-graduate degree from a recognized university in meteorology or oceanography;
 - (ii) post-graduate degree from a recognized university in the natural or applied sciences or mathematics, specializing in one or more branches of meteorology or oceanography; or

(iii) three years of on-the-job meteorological or oceanographic experience.

- (3) Upon completion of the above educational and training requirements, the applicant must have spent at least two years of satisfactory performance, at the working level, in the field of specialization included in this document. This should include at least some consulting experience.

Individuals interested in applying for accreditation may contact the CNOS Executive Director at the Society's Ottawa address for a copy of the Guidelines and an application form. Consultants who wish to obtain accreditation should note that applications received before April 1, 1989, are expected to be processed by July 1, 1989, if all the necessary information has been included with the applications. A complete list of CNOS accredited consultants can be obtained from the Executive Director.

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CMOS Accredited Consultant

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Training

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Facsimile: (604) 681-6825

David R. Hudak, Ph.D.

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Senior Scientist
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Susan K. Lally
Meteorologist, CMOS Accredited Consultant

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Marine Meteorology

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Telex: 019-22888
Fax: (902) 835-6589

Tom B. LOW, Ph.D. P.Eng.

CMOS Accredited Consultant

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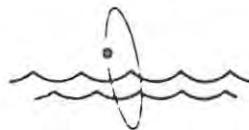
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Telephone:

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(604) 228-6407 (O)

Douw G. Steyn, Ph.D.

CMOS accredited consultant in
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