

C.m.o.s.

-1,1

1100 110

NEWSLETTER



s.c.m.o.

12 12 05 C 0 0 0 -

October 1981

Vol.9 No.5

1981 Awards......14



CMOS NEWSLETTER is a bi-monthly publication of the Canadian Meteorological and Oceanographic Society.

Editor:

Avard S. Mann Atmospheric Environment Service Argyll Centre 6325 - 103 Street Edmonton, Alberta T5H 5H6

FROM THE PRESIDENT'S DESK

With the 1981 Congress only recently over, or so it seems, the Executive is already looking forward to the 16th Congress, which will be held in Ottawa from May 25-28, 1982. Leo O'Quinn (613-995-5659) heads the local arrangements committee, who, according to the latest reports, have their arrangements well underway. The scientific sessions will take place in the Fauteau Building on the University of Ottawa Campus, a very attractive site adjacent to the Rideau Canal, and only a stone's throw from downtown Ottawa, Arts Centre and National Parliament Buildings. A cocktail party at the RCAF Officers' Club and an interesting spouses' program are also part of the plan. Look for the call for papers in Atmosphere-Ocean 19,2. George Isaac (416-667-4683) will chair the scientific program committee, and this year, for the first time, there will be a special Congress Issue Editor, Ed Truhlar. It's shaping up to be an exciting Congress - plan to be there!

Looking ahead still further the Edmonton Centre is working hard on plans to host the 1983 Congress, possibly at a site in the Rockies. Meanwhile, the Saskatchewan Centre is running the final tally on the books for the 15th Congress. It seems that through careful planning, thrifty operation, and a bit of good fortune, Jeff Whiting and his committee have been able to contribute a several thousand dollar Congress surplus to the Society's coffers.

Two new committees will be working on behalf of the Society this year. The permanent Prizes and Awards Committee, under the chairmanship of David Farmer (604-656-8291), now has the responsibility for all aspects of the Society's prizes and awards, except for final approval which is still the prerogative of Council. It is not too early to start thinking of nominees for the Society's awards and citations this year. In fact, now that the committee is a permanent one, I am sure they would be glad to receive nominations at any time.

The new Education Committee (for Meteorology) was born at an organizational meeting held at the Congress in Saskatoon. The committee's scope at present extends to all aspects of the professional education and employment of meteorologists in Canada. We expect that it will flourish as a focus for the interchange of information and ideas among those concerned with meteorological education and employment, and that it, like its progenitor, the Scientific Committee, will encourage the formulation of sound policies to promote meteorological education in this country. The composition of the committee is just about complete and we expect to call the first meeting in the near future.

Speaking of flourishing, the Air Pollution Special Interest Group (APSIG) seems to be doing precisely that with the publication of the first edition of its own newsletter. We wish them well with this new endeavour. Meantime, the newly-established Hydrology Special Interest Group is also becoming active. It remains to be seen what will be the effect of the recent decision to consider papers in physical hydrology for publication in Atmosphere-Ocean.

With a view to saving money, and to eventually transferring the administration of the Society's activities to the new permanent office in Ottawa, the Executive has decided to initiate measures to move out from under the wing of the University of Toronto Press. In the past, the Press has not only printed and mailed out Atmosphere-Ocean for us, but it has also maintained our membership list, sent out renewal notices and receipts, and collected and banked membership fees. handling our membership administration for us, the Press has relieved the Executive, and particularly the Corresponding Secretary, of a time-consuming task. The cost of this service, however, is several thousand dollars per year. It also puts the Society in a position where it has less control over its financial and membership affairs. Two brief examples. The Press has been in the habit of issuing our membership list to publishers without a financial return to the Society and frequently without even notifying us. The Press also retains our membership fees in a trust account, on which we receive no interest whatsoever.

In order to begin the move away from the Press, the Society will, for the first time this year, be mailing out its own membership renewal forms, collecting its own membership fees, and issuing receipts to those who need them. The renewal forms will have a different format to those sent out by the Press in previous years, but the procedure

will be much the same, except that cheques should be made out directly to the Society and mailed to the permanent office. Should this changeover present particular problems for you, please do not hesitate to contact the Corresponding Secretary, Peter Kociuba (403-437-1250) or myself (403-432-5672). For the time being, however, we expect that the University of Toronto Press will continue to print Atmosphere-Ocean.

> Edward Lozowski President

1981-82 EXECUTIVE - (Continued from July issue)

Committee Chairmen

Editorial

and A.O. Editor Dr. H.G. Leighton Department of Meteorology McGill University 805 Sherbrooke St. W. Montreal, P.Q. H3A 2K6 Bus. (514) 392-4443 Res. (514)

Public Information

Joe Kotylak Atmospheric Environment Service 6325 - 103 Street Edmonton, Alberta T6H 5H6 Bus: (403) 437-1250

Res: (403) 436-0258

Scientific

Dr. George Boer Atmospheric Environment Service 4905 Dufferin Street Downsview, Ontario M3H 5T4 Bus: (416) 667-4825 Res:

Financial Development

L. T. Campbell 6 Warlock Crescent Willowdale, Ontario M2K 2H9

Membership-Interim Mr. Pete Kociuba

Atmospheric Environment Service 6325 - 103 Street

Edmonton, Alberta

T6H 5H6

Bus: (403) 437-1250 Res: (403) 466-9029

Newsletter Editor

Avard S. Mann Atmospheric Environment Service 6325 - 103 Street Edmonton, Alberta T6H 5H6

Bus: (403) 483-1250 Res: (403) 484-9631

16th Congress-Ottawa

Local Program Chairman Mr. L. D. (Leo) O'Quinn Canadian Committee on Oceanography Department of Fisheries and Oceans C.D. Howe Building, 7th Floor West 240 Sparks Street Ottawa, Ontario KIA OE6 Bus. (613) 995-5659 Res. (613) 836-5207

NEW MEMBERS

Monique Allaire Montreal, P.Q.

David S. Chadder Calgary, Alberta

Monika Dobson Toronto, Ontario

Richard G. Lawford Ottawa, Ontario

Enrico Torlaschi Edmonton, Alberta

Dr. John M. Wigham Saskatoon, Sask.

S. Bhartendu Willowdale, Ontario Don Keith Clark Halifax, N.S.

Ray Kapahi Mississauga, Ontario

Dr. Donald McEwen Saskatoon, Sask.

Alfred Warkentin Winnipeg, Man.

Dr. A. J. Willmott Monterey, California

Paul Y. T. Louie Willowdale, Ont.

V. Chris Lakhan Toronto, Ontario

CORPORATE MEMBERS

Alberta Agriculture Advisory Committee on Weather Modification Three Hills, Alberta

Airflow Development Canada Ltd. Mississauga, Ontario

Beak Consultants Vancouver, B.C.

Bendix Aviation Electric Ltd. St. Laurent, P.Q.

Bristol Aerospace Ltd. Winnipeg, Manitoba

Dobrocky Seatech Ltd. Victoria, B.C.

Geneq Inc. Anjou, Quebec

Hermes Electronics Ltd. Dartmouth, N.S.

MacDonald Dettweiler Assoc. Ltd. Richmond, B.C.

MacLaren Plansearch Ltd. Dartmouth, N.S.

NORDCO Ltd. St. John's, Nfld.

Ontario Hydro Oakville, Ontario

SUSTAINING MEMBER

N. Sargent Downsview, Ontario.

AIR POLLUTION SPECIAL INTEREST GROUP (APSIG)

Congratulations to the recently formed Special Interest Group on Air Pollution Meteorology. This group organized a very effective session at CMOS Congress XV in Saskatoon. Published proceedings of the papers presented at this session are now available from:

R. P. Angle Air Quality Control Branch Alberta Environment 9820 - 106 Street Edmonton, Alberta T5K 2J6

The wide interests of this group are evident in their excellent newsletter APSIG UPDATE. If you want to get on the mailing list, contact:

Dr. John D. Reid Atmospheric Environment Service 4905 Dufferin Street Downsview, Ontario M3H 5T4

ADVERTISEMENT

Aviation Planning Services Ltd. has for sale meteorological instruments:

- 1. Two MRI Fog Visiometers Model 1580 with Servo Recorder Model 450 and System Instruction Manual.
- 2. One Mechanical Weather Station Model 1081 Serial Number 1037 and System Instruction Manual.
- One MRI Wind Monitoring System Model 1074-2 with Recorder and System Instruction Manual.

For further details please contact, collect, either Mr. S. Kearns at (514) 878-4388 or Mr. R. De Chancenotte, Consulting Meteorologist at (514) 288-4364 or write to:

Aviation Planning Services Ltd. 800 Dorchester Street West, Suite 1420 MONTREAL, Quebec H3B 1X9

CALL FOR PAPERS

CANADIAN HYDROLOGY SYMPOSIUM: 82

on

HYDROLOGICAL PROCESSES OF FORESTED AREAS

This symposium will be held at the University of New Brunswick in Fredericton, N.B. on June 14-15, 1982. This is the first symposium which is explicitly devoted to the topic of the hydrology of forested areas in the series of meetings sponsored by the Associate Committee on Hydrology (ACH) of the National Research Council of Canada.

Abstracts in either English or French for papers for any of the following topics related to the hydrology of forested areas are invited:

- 1. Forests and Water Quality
- 2. Physical Processes in Forested Basins
- 3. Snow and Snowmelt
- 4. Integrated Basin Response
- 5. Forests and Floods

The proposed title, an extended abstract for review (200-300 words), a short abstract for the program (50-100 words) are to be submitted by Janury 15, 1982 to:

Prof. R.B.B. Dickison, Chairman Canadian Hydrology Symposium: 82 c/o Department of Forest Resources University of New Brunswick Bag Service Number 44555 Fredericton, N.B. E3B 6C2 Telephone: (506) 453-4501

The final program will be based on the submitted abstracts and on a few invited papers. The detailed program will be mailed to prospective attendees in late February, 1982. Completed papers must be submitted by June 1, 1982, must not exceed 20 pages, and may be in either English or French. If a paper is selected for the symposium program, it is expected that the author (or a substitute) will make a presentation of the paper at the symposium.

Contributions are also solicited for poster sessions. Titles and descriptions should be submitted by April 15, 1982. Details concerning poster sessions may be obtained from the Symposium Chairman.

ANNONCE ET APPEL AUX SPECIALISTES POUR LE

SYMPOSIUM CANADIEN D'HYDROLOGIE: 82 "PROCEDES HYDROLOGIQUES DES REGIONS BOISEES"

Le symposium aura lieu à l'Université du Nouveau-Brunswick de Fredericton, (N.-B) les 14 et 15 juin 1982. Dans le cadre de la série de réunions que parraine le Comité associé d'hydrologie (C.A.H.) du Conseil national de recherches du Canada, il s'agit du premier symposium consacré essentiellement à l'hydrologie des régions boisées.

Nous invitons les auteurs à présenter des résumés (en anglais ou en français) de textes se rapportant à l'hydrologie des régions boisées soit notamment aux sujets suivants:

- 1. La forêt et la qualité de l'eau
- 2. Procédés physiques des bassins boisés
- 3. La neige et la fonte des neiges
- 4. Effets intégrés des procédéshydrologiques sur les bassins
- 5. Forêts et inondations

Veuillez faire parvenir, d'ici le 15 janvier 1982, le titre proposé, un texte (de 200 à 300 mots) pour fins d'étude ainsi qu'un bref résumé (de 50 à 100 mots) à insérer au programme du symposium en l'adressant à:

Monsieur R.B.B. Dickison
Président
Symposium canadien d'hydrologie: 82
a/s Ministère des ressources forestières
Université du Noveau-Brunswick
C.P. 44555
Fredericton, N.B.
E3B 6C2 Téléphone: (506) 453-4501

Nous établirons la version finale du programme en nous fondant sur les résumés qui nous auront été soumis et sur les quelques textes que nous aurons commandés â des spécialistes. Le programme détaillé du symposium sera envoyé aux participants éventuels à la fin de février 1982. Les textes intégraux pourront être rédigés en anglais ou en français, ne devront pas dépaser 20 pages et devront être soumis d'ici le 1^{er} juin 1982. L'auteur (ou son représentant) d'un texte choisi aux fins du symposium devra se préparer à faire un exposé sur ce dernier au cours de l'événement.

Nous invitons les personnes intéressées à nous faire parvenir, d'ice le 15 avril 1982, le titre et la description d'affiches qui serviront lors desessions consacrées au sujet. Pour obtenir de plus amples renseignements sur les sessions consacrées aux affiches, veuillez communiquer avec le président du symposium.

European Association of Remote Sensing Laboratories Council of Europe

SUMMER SCHOOL

SENSING APPLICATIONS IN MARINE SCIENCE AND TECHNOLOGY at the University of Dundee, from 25 July to 14 August, 1982.

The school is intended for postgraduate research students, post-doctoral research workers, and established scientists, engineers and consultants interested in the exploitation of remote sensing techniques in marine environmental science and engineering programmes. It will be a sequel to the successful postgraduate summer school on remote sensing in meteorology, oceanography and hydrology which was held in Dundee in September 1980; in 1982 it is intended to select part of the subject matter of the 1980 school and treat the material in greater depth.

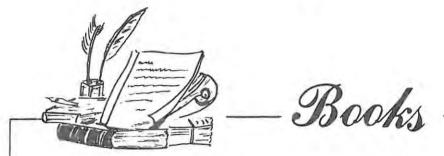
The course will be concerned with the processing and interpretation of remote sensing data, with particular reference to applications in marine science and technology. It is expected that the topics covered will include:

INTRODUCTORY SURVEY OF REMOTE SENSING SYSTEMS
SOURCES OF MARINE REMOTE SENSING DATA
DIGITAL IMAGE PROCESSING
ATMOSPHERIC CORRECTIONS TO SATELLITE REMOTE-SENSED DATA
AIRCRAFT SURVEYS' DYE TRACER EXPERIMENTS AND COASTAL
ENGINEERING PROBLEMS
SUSPENDED SEDIMENTS - MONITORING AND PROTECTION OF THE
COASTAL ENVIRONMENT
SATELLITES AND NAVIGATION
ICE-MAPPING BY REMOTE SENSING
OCEAN COLOUR
SEA-SURFACE TEMPERATURES
MARINE BIOLOGICAL APPLICATIONS OF REMOTE SENSING
ACTIVE MICROWAVE SYSTEMS
THE OCEANS AND METEOROLOGICAL MODELS

In addition to lectures, it is anticipated that practical work will form an important component of the course. Applications are being made to potential sponsoring bodies; if these are successful some bursaries may be available to assist students to attend. There will be sufficient free time to allow excursions to nearby places of interest.

Further particulars and application forms will be available from:

Professor A.P. Cracknell Carnegie Laboratory of Phyics University of Dundee DUNDEE DD1 4HN Scotland, U.K.



AIR POLLUTION AND FORESTS. By William H. Smith. Springer-Verlag New York Inc. (44 Hartz Way, Secaucus, NJ 07094). 1981. 379+xvpp., \$29.80.

Air pollution is a byproduct of much human activity. The significant relationships between forests and air pollutants under low, intermediate and high dose conditions are discussed in this volume. With increasing dose conditions, the forest ecosystem moves from acting as a source or sink for air pollution to being morbidly affected by the pollutants. The relative importance of specific compounds to the ecosystem is examined at the various dosage levels. The intermediate exposure level is deemed to be the most significant. Some of the relationships that are discussed include altered reproduction, nutrient cycling, photosynthesis, insect infestation, and microbial infection. The results are examined from the perspective of the individual tree and of the total ecosystem.

ATMOSPHERIC PLANETARY BOUNDARY LAYER PHYSICS. Edited by A. Longhetto. 1980. Developments in Atmospheric Science, Volume 11. 424 pages. \$70.75. Hardbound. Elsevier Scientific Publishing Co.

This book presents the proceedings of the Fourth Course of the International School of Atmospheric Physics, held at Ettore Majorana Center for Scientific Culture, at Erice (Italy) in February 1978. The object of the source was to assess "the state of the art of the most advanced research work in different areas concerning the atmospheric boundary layer, ranging from its fundamental physical and mathematical modeling to the aspects of the phenomenology of diffusion and transport of airborne pollutants," according to its organizer, A. Longhetto. Twenty-one speakers presented 19 chapters of lectures, grouped around four principal subject areas; theory and modeling of the planetary boundary layer; turbulent diffusion in the planetary boundayer layer; stack and cooling-tower plume trajectories; and experiments and observations in the planetary boundary layer.

INTERACTIONS OF ENERGY AND CLIMATE (Wilfrid Bach, Jürgen Pankrath, and Jill Williams, Eds., 1980, 568 pp., \$58.00 hardbound, \$26.60 paperbound, from D. Reidel) contains 29 papers delivered at a meeting held in Münster, Federal Republic of Germany, in March 1980.

"...the book is designed to be a comprehensive and integrated resources book on problems interlinking energy and climate rather than a loose collection of individual papers..." The papers deal with "both the effects of energy systems on climate and with the effects of climate on energy use" and are organized under seven main sections: Global Energy Demand and Supply-Present and Fugure; Climate Impacts of Carbon Dioxide; Climatic Impacts of Other Gases and Aerosols; Climatic Impacts of Land Use Changes; Climatic Impacts of Heat Emission; Risk-Benefit and Cost-Benefit Assessment; and Possible Preventive Measures.

EXPLORATION OF THE OCEANS: An Introduction to Oceanography (John G. Weihaupt, 1979, 589 pp., \$16.95 hardbound, from MacMillan Publishing Co., Inc., 866 Third Ave., New York, N.Y. 10022) is designed to provide a broad, but comprehensive, introduction to oceanography." The text is aimed at general college students, "assumes no previous knowledge of the subject," uses nontechnical language, and treats topics in both a descriptive and a theoretical manner. The book is divided into three main parts: Marine Geology; Chemical and Physical Oceanography; and Marine Biology. chapter titles are: The History and Scope of Oceanograhy; The ocean, on time-scales of at least a year and on spatial scales from a few hundred kilometers to that of the global atmospheric and oceanic circulations. Some of the more recent observations available from satellites are presented, as well as a description of the use of computerized models in the study of monsoons."

CONFERENCES

| Reno, Nev. | October 5-7, 1981 | 8th Conference on Inadvertent and Planned Weather Modification - AMS |
|---------------------------|------------------------------|---|
| Reno, Nev. | October 7-9, 1981 | Fourth Conference on Hydrometeorology - AMS |
| Steamboat Springs, CO. | November 10-13, 1981 | Seventh Conference on Fire and Forest Meteorology and Second Conference on Mountain Meteorology - AMS |
| San Antonio, TA. | Jan. 11-15, 1982 | 12th Conference on Severe Local Storms. |
| San Antonio, TA. | Jan. 11-15, 1982 AMS/APCA | 3rd Joint Conference on Applications of Air Pollution Meteorology. |
| Washington, D.C. | March 14-18, 1982 | Sixth Symposium on Temperature - Its Measurement and Control in Science and Industry |
| The Hague, Netherlands | May 10-14, 1982 AMS/KNMI | lst International Conference on Meteorology and Air/Sea Interaction of the Coastal Zone. |
| Ottawa, Ont. | May 26-28, 1982 | 16th Annual CMOS Congress. |
| San Diego, CA. | June 8-11, 1982 | 4th Conference on Ocean-Atmosphere Interaction |
| Denver, CO. | June 13-17, 1982 AMS/AWRA | Internatioinal Symposium on Hydrometeorology |
| Fredericton, N.B. | June 14-15, 1982 | Canadian Hydrology Symposium - 82. Hydrological Processes of Forested Areas. |
| Seattle, WA. | June 28-July 2, 1982 | 9th Conference on Weather Forecasting and Analysis. |
| Rolla, MO. | August 2-6, 1982 | 6th International Symposium on the Physics and Chemistry of Ice. |



NORDCO LTD.

An independent corporate organization specializing in the provision of weather and sea state forecasts to clients operating in the Canadian Offshore, is seeking the services of a:

PROFESSIOINAL METEOROLOGIST

to work in the company's expanding Environmental Forecasting Centre in St. John's, Newfoundland. NORDCO LTD. offers relocation expenses, a complete benefits package and a competitive salary to the right individual. Interested applications should call, write, or telex:

NORDCO LTD.

P.O. Box 8833

ST. JOHN's, Newfoundland

A1B 3T2

Attention: Personnel Dept.

Telephone: (709) 754-2401

Telex: 016-4596

INSTRUMENT METEOROLOGIST



Petro-Canada is a progressive Canadian-owned company involved in meeting the challenges of energy self-sufficiency for Canada.

Reporting to the Senior Meteorologist, this individual will be responsible for the installation and maintenance of Petro-Canada's network of fully-automated weather stations. Duties will include negotiating for station purchases, assisting with station design, contracting installation crews, monitoring station performance, and arranging for logistics support. Although based in Calgary, this position involves some work in the field.

The successful candidate will have completed an advanced course in Meteorology at the technical level and have a few years' experience in maintaining meteorological instruments. Completion of a course in Electronics at a technical school level and previous demonstrated ability to co-ordinate field programs are desired assets.

Interested persons are invited to submit a letter of application and resume to:

For further information on this position call Dennis Anaka at 268-6272.

Human Resources Planning PETRO-CANADA P.O. Box 2844 Calgary, Alberta

and resume to: Petro-Canada offers career-oriented people excellent compensation and a comprehensive benefits package, plus opportunity for personal growth in the ideal working environment.

Calgary, Alberta AGENCY REFERRALS WILL NOT BE CONSIDERED AT T2P 3E3 THIS TIME.

CALL FOR NOMINATIONS - 1981 AWARDS

Nominations are requested from members and Centres for 1981 CMOS Awards to be presented at the 1982 Annual Meeting. Five awards are open for competition: (1) the President's Prize, for an outstanding contribution in the field of meteorology and/or oceanography by a member of the Society; (2) the Dr. Andrew Thomson Prize in Applied Meteorology, for an outstanding contribution by a member in that field; (3) the Graduate Student Prize, for a contribution of special merit; (4) the Rube Hornstein Prize in Operational Meterology, for outstanding service in providing operational meteorological service; and (5) the Applied Oceanography Prize, for a significant contribution to the application of oceanography in Canada.

Nominations are also requested for the award of citations to individuals or groups in Canada who have made some outstanding contribution in helping alleviate pollution problems or in developing environmental ethics.

Documentation requirements for award and citation nominations will be published in the next Newsletter and will be available from the Prizes and Awards Committee or the Corresponding Secretary.

All correspondence should be forwarded to the prizes and awards secretary no later than January 15, 1982:

J.R. Mathieson Regional Director Pacific Region Atmospheric Environment Service 700-1200W 73rd Avenue Vancouver, B.C. V6P 6H9

CALL FOR PAPERS - SIXTEENTH ANNUAL CONGRESS CANADIAN METEOROLOGICAL AND OCEANOGRAPHIC SOCIETY

The Sixteenth Annual Congress and Annual General Meeting of the Canadian Meteorological and Oceanographic Society will be held at the University of Ottawa, Ottawa, Ontario, Canada on May 26-28, 1982. The theme for the Congress will be Sea Ice. In addition to invited and contributed papers relating to the general theme, sessions will be held on any other aspects of meteorology and oceanography depending on contribution. Poster sessions may be held depending on response.

Titles and definitive abstracts (less than 300 words) should reach the program committee by February 1, 1982 and should be addressed to Dr. George Isaac, Cloud Physics Research Division, Atmospheric Environment Service, 4905 Dufferin Street, Downsview, Ontario, M3H 5T4; telephone (416) 667-4683. Please indicate if the paper is suitable for presentation in a poster session.

Other congress activities, including tours, are planned. In addition, commercial exhibits will be on display during the Congress. Organizations interested in obtaining display space should contact Brian O'Connell, Atmospheric Environment Service, Ottawa, Ontario, K1A OH3; telephone (819) 997-3511.

INVITATION A PRESENTER DES COMMUNICATIONS - SEIZIEME CONGRES ANNUEL SOCIETE CANADIENNE DE METEOROLOGIE ET D'OCEANOGRAPHIE

Le seizième congrès annuel et réunion générale annuelle de le Société canadienne de météorologie et d,océanographie auront lieu à l'université d'Ottawa, à Ottawa (Ontario) du 26 au 28 mai 1982. Le congrès a pour thème "La glace de mer". Outre les communications présentées par des personnalités invitées et d'autre participants sur le thème général, il y aura des sessions sur d'autres aspects de la météorologie at de l'océanographie en autant qu'un nombre suffisant de communications soient contribuées. Des présentations par affichage pourront avoir lieu également, dépendant de l'intérêt manifesté.

Le résumé définitif (moins de 300 mots) et le titre des communications doivent parvenir au comité du programme au plus tard le ler février 1982. On doit envoyer le tout à Dr. Georges Issac, Physique des nuages, Division de la recherche, Service de l'environnement atmosphérique, 4905 rue Dufferin, Downsview (Ontario) M3H 5T4; téléphone: (416) 667-4683. Veuillez indiquer si l'on peut inclure votre communication au programme de présentation par affichage.

Diverses activités (telles que visites organisées) sont prévues. De plus, une exposition commerciale aura lieu pendant le congrès. Les organisations désireuses d'y participer devraient contacter M. Brian O'Donnell, Service de l'environnement atmosphérique, Ottawa (Ontario) KIA OH3; téléphone: (819) 997-3511.

CONTRACTOR OF THE STATE OF THE

As a service of the s

College of the second for the college of the second of the

The desired and tends of the middle of the examination of the examination of the contract of t

AND THE SECOND DAY TO BE AND THE PART OF T

s common de la communicación de la completa del la completa de la completa del la completa de la

The freezeway of a supplementation of the contract of the cont