



C.m.o.s.

# NEWSLETTER

S.C.M.O.



APRIL 1980

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

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## FROM THE PRESIDENT'S DESK

Our 14th Annual Congress of CMOS will be held in Toronto May 22-27 at the Harbour Castle Hilton. This joint venture with the American Geophysical Union (AGU) has been in the making for four years and we are all looking forward to a most successful meeting. This is the AGU's first annual meeting outside the United States and the first to be held jointly with other societies. Besides CMOS, the Canadian Geophysical Union, the Division of Aeronomy and Space Physics of the Canadian Association of Physics and the Canadian Exploration Geophysical Society are jointly hosting the meeting, and over the last two days the Canadian Associate Committee on Hydrology will hold the Canadian Hydrology Symposium - 80 Hydrology of Developed Areas. This occasion will, therefore, be an ideal opportunity for all members to meet with discipline colleagues from the United States and with Canadians from groups with related interests.

The abstracts of the papers for all of the meeting sessions will be printed in EOS and sent to members of all cooperating societies by the AGU in advance of the meeting. We are also hoping to include the program for the meteorology and oceanography sessions in our Congress issue of ATMOSPHERE-OCEAN. This issue will also include the reports and information for the CMOS Annual Meeting. On the day before the Congress, May 21, the Society is scheduling a series of Committee meetings

(Editorial, Public Information, Scientific, and Membership Committees) through the day and a Council meeting in the evening. These meetings are open to any interested member, and I hope some of you will take this opportunity to attend and learn how some of our committees function on behalf of the Society. The Annual Meeting of the Society will be held on the evening of Thursday, May 22, following a wine and cheese social event, and the Society Awards Luncheon will take place on Monday, May 26. Again, I invite all members to attend. On Sunday, May 25, a number of field trips are planned in the Toronto area, including tours of the Atmospheric Environment Service, Downsview, and the Canada Centre for Inland Waters, Burlington. We hope you will be able to join us in Toronto.

Our 15th Annual Congress will be in Saskatoon at the University of Saskatchewan, May 26-29, 1981 to be hosted by the recently restructured Saskatchewan Centre. Council will be looking for suggestions for our 1982 and 1983 congresses so come prepared with invitations or suggestions at the Annual Meeting.

In December 1978, the National Research Council of Canada invited the Society to comment on a proposal to modify the present mechanism for Canadian International non-Government Representation. More specifically, the proposal suggested a transfer of responsibilities in this matter from NRC to the Royal Society of Canada with respect to ICSU and its components. After analysis of the various responses which indicated general satisfaction with the manner in which NRC has carried out its task, the NRC has decided to maintain its present role vis-a-vis the international scientific and engineering non-governmental organization with the understanding that the national societies will continue their very active collaboration in representing the community and increase their participation in international activities. We hope that CMOS can help in this regard. Currently, we are hoping to be represented on more national committees. We were recently invited to nominate individuals for the new Canadian National Committee for the World Climate Research Program (CNC/WCRP) and are investigating possible representation on the Canadian Committee on Oceanography (CCO) and the Fisheries and Oceans Research Advisory Council (FORAC).

The Society will again be sponsoring a prize at the Canada Wide Science Fair to be held in mid-May at Thompson, Manitoba. Glen Bond, Officer-in-Charge of the Thompson Weather Office will be judging the exhibits and presenting the prize on behalf of the Society.

## HIGHLIGHTS

Society member, Dr. Warren L. Godson was elected President of the International Association of Meteorology and Atmospheric Physics (IAMAP) of the International Union of Geodesy and Geophysics (IUGG) at the XVII IUGG General Assembly in Canberra, Australia.

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The American Meteorological Society announced that the Society's second highest honor, the Second Half Century Award, was presented jointly to Dr. André J. Robert and Dr. Frederick G. Shuman "for scientific leadership in the construction of different and original operational primitive equations models that produced significant benefits to Canadian and U.S. weather services". Dr. Robert is Director of the Canadian Meteorological Centre, Montreal, Quebec, Canada. Dr. Shuman is Director of the National Meteorological Center (NMC), NWS (National Weather Service), NOAA, in Camp Springs, Md.

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Dr. Richard Asselin recently accepted the position of Director of Meteorology and Oceanography for the Canadian Armed Forces (DMETOC). He started his career with the Meteorological Service in 1962 after obtaining a B.Sc. (Mathematics) from Université de Montréal. He later obtained M.Sc. (1964) and Ph.D. (1970) in Meteorology from McGill University. He has served the Canadian Meteorological Society as treasurer of the Montreal Chapter (1968-69) and as Recording Secretary in 1974-75. He became Chief of the Numerical Prediction Research Division in 1974. He was nominated, in 1977, member of the GARP Working Group on Numerical Experimentation and Editor of the publication "Research Activities in Atmospheric and Oceanic Modelling". On September 1978, he attended a one-year course at the National Defence College in Kingston.

Le docteur Richard Asselin a accepté récemment le poste de Directeur de la météorologie et de l'océanographie des Forces Armées Canadiennes. Il a commencé sa carrière au service météorologique en 1962, suite à l'obtention de son Baccalauréat (Mathématiques) de l'Université de Montréal. Plus tard en 1964 et en 1970, il obtenait une maîtrise (météorologie) et un doctorat (météorologie) de l'Université McGill. Il a servi la Société Canadienne de Météorologie à titre de trésorier du Chapitre de Montréal (1968-69) et de secrétaire correspondant (1974-75). En 1974, il devint Chef de la division de Recherche en prévision numérique. Il fut nommé en 1977, membre du groupe de travail de GARP sur l'expérimentation numérique et éditeur de la publication "Research Activities in Atmospheric and Oceanic Modeling". En septembre 1978, il entreprenait un cours de gestion d'une durée d'un an au Collège de la Défense Nationale à Kingston.

Federal Environment Minister John Fraser announced in January that approval has been granted to install weather radar facilities in Regina, Brandon, North Bay, Thunder Bay and Sault Ste. Marie.

"The decision constitutes an expansion of the present radar system and is intended to strengthen the severe weather forecasting capabilities of Canada's national weather service" commented Mr. Fraser.

The major advantage will be increased advance warning to localities threatened by severe weather, such as tornadoes or hailstorms, providing more time for precautionary measures to prevent or reduce loss of life, injury, or property damage.

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The new editor of ATMOSPHERE-OCEAN will be Professor Henry Leighton of McGill University. He will take over these duties from Dr. Tim Oke following the 14th Annual CMOS Congress.

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Three new members of the Scientific Committee were recently announced. Dr. Peter Smith, Bedford Institute of Oceanography, Dr. H.-R. Cho, University of Toronto, and Dr. J. G. Cantin, Université de Québec à Montréal.

#### NEW MEMBERS

Frederick D. BARLOW  
Edmonton, Alta.

Claude A. JOLLET  
Longueuil, P.Q.

Jean-Guy BABINEAU  
Pointe Claire, P.Q.

Brian N. LEA  
St. John's, Nfld.

Dr. Harmon R. DAVIDSON  
Swift Current, Sask.

Denis LEFAIVRE  
Rimouski, P.Q.

Kenneth F. DRINKWATER  
Dartmouth, N.S.

Jose LLAMAS  
Université Laval, Québec, P.Q.

John C. FALKINGHAM  
Nepean, Ont.

Wayne G. LUMSDEN  
Fredericton, N.B.

Dr. Howard J. FREELAND  
Sidney, B.C.

John D. MILLER  
Calgary, Alta.

Peter N. GRYNIEWSKI  
Mississauga, Ont.

George S. READ  
Fredericton, N.B.

Reginald HARDY  
Donnacona, P.Q.

Billie TAYLOR  
Downsview, Ont.

W. S. HUGGETT  
Sidney, B.C.

#### SUSTAINING MEMBERS

The following are Sustaining Members of the Canadian Meteorological and Oceanographic Society:

Airflow Developments Ltd.  
Richmond Hill, Ont.

Hermes Electronics Ltd.  
Dartmouth, N.S.

Air Canada  
Montreal, P.Q.

MacDonald Dettweiler and  
Associates Ltd.  
Richmond, B.C.

Alberta Weather  
Modification Board  
Three Hills, Alberta

MacLaren, Marex Inc.  
Dartmouth, N.S.

Beak Consultants Ltd.  
Vancouver, B.C.

Philip E. Merilees  
Montreal, P.Q.

Bendix-Aviation Electric  
Montreal, P.Q.

Neil Sargent  
Downsview, Ont.

Bristol Aerospace  
Winnipeg, Man.

Younge Atmospheric  
Consulting Services Ltd.  
Calgary, Alberta

Dobrocky Seatech Ltd.  
Victoria, B.C.

Albert E. Boyer  
Oakville, Ont.

Greenpark  
Canadian Forestry  
Equipment Ltd.  
Edmonton, Alta.

Meyer Systems Inc.  
Vancouver, B.C.



NEWS FROM THE CENTRES

Alberta: Meetings were held in Calgary and Edmonton to hear this year's CMOS Tour Speaker, Dr. Michael Howard Glantz. Both meetings were attended by the Chairman and Secretary-Treasurer who travelled to Calgary for the meeting there. Dr. Glantz spoke on the "CO<sub>2</sub>" issue for the Calgary members on February 4 and on the "Value of a Forecast" for members in Edmonton on February 5.

The next meeting is scheduled for Tuesday, March 25 when members are invited to attend the Edmonton premiere of the film "Chinook", produced at the University of Calgary.

Ottawa: The Centre's annual dinner meeting was held on January 30, 1980 at the RCAF Ottawa Officers' Mess. Approximately 40 members and friends enjoyed very good food and an excellent presentation by Dr. James B. Harrington, Jr. of Environment Canada's National Forestry Institute. Dr. Harrington's talk on the forests as a component of our energy resource future captivated the audience and provided a real insight into our total energy supply, in particular the part renewable energy resources such as the forests will play as our conventional resources decline.

On March 3, the AES touring speaker, Dr. Michael Glantz, spoke to about 20 Ottawa Centre members on the scientific political and economic effects of "El Niño" on the Peruvian anchovy fishery. Dr. Glantz developed this topic into a fascinating tale of questionable decisions made by scientists and politicians during the past two decades, which may well have triggered the collapse of a very valuable fishery.

Newfoundland: CMOS member, Mr. Laurie Davidson (Research Scientist with Seaconsult Marine Research) gave a talk entitled "Deep water exchange in a British Columbia Inlet" at our monthly meeting on 31 January. About a dozen members and three or four non-members turned out to hear this excellent talk.

We are sponsoring a Province-wide high school prize in meteorology/oceanography this winter and we are now in the process of contacting the schools and providing them with the details.

Winnipeg: We wish the following members of the Winnipeg Centre all the best in their retirement: Einar Einarsson, Art Lamont and Paul Lemieux of the Atmospheric Environment Service, Scientific Services Division, and Jack Labelle, Regional Director, Central Region.

NOTICES

CANADIAN NATIONAL COMMITTEE FOR  
THE SCIENTIFIC COMMITTEE ON OCEANIC RESEARCH (SCOR)

COMITÉ NATIONAL CANADIEN POUR  
LE COMITÉ SCIENTIFIQUE DE LA RECHERCHE OCÉANIQUE (CSRO)

It is proposed to move the International Non-Governmental Scientific Committee on Oceanic Research (SCOR) Secretariat, currently housed with the Royal Society in London, England, to Dalhousie University in late 1980.

An executive Secretary will be appointed to attend to all aspects of the day-to-day administration of SCOR affairs. The Executive Secretary is directly responsible to the elected officers of SCOR, particularly the President and Secretary. The position of Executive Secretary is a part-time one (probably less than 50%), and will involve some international travel.

Scientists who may be interested or require further information regarding terms of reference, tenure, salary, etc., should contact me, not later than 30 April 1980.

Leo O'Quinn, Secretary  
Canadian National Committee for SCOR  
240 Sparks Street  
7th Floor West  
Ottawa, Ontario  
K1A 0E6

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Weather Consultants of  
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61 Alness Street, Suite 206  
Downsview, Ontario  
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Morris Kestin  
President





## *Books*

### THE VISUALIZATION OF CLIMATE

- Joe R. Eagleman  
University of Kansas

Tables, figures, appendixes, bibliography, index.  
256pp. 1976 \$16.95  
LC 75-369888 ISBN 0-669-00308-1

This book responds to the increasing need for more sensitive data on the environment, detailing methods of portraying climate and new ways of visualizing certain climatic characteristics. Water-balance climatology is developed here with diagrams for 270 different locations in North America. These diagrams are invaluable in comparing climatic variations in North America. Invaluable to the student and professional in biology, meteorology, and hydrology.

### THUNDERSTORMS, TORNADOES, AND BUILDING DAMAGE

- Joe R. Eagleman, Vincent U. Muirhead, and  
Nicholas Willems, University of Kansas

Notes, figures, tables, photographs, appendix,  
glossary, bibliography, index.

352pp. 1975 \$23.95  
LC 74-30674 ISBN 0-669-98137-0

## MARINE POLLUTANT TRANSFER

edited by H.L. Windom  
Skidaway Institute of Oceanography, and R.A. Duce,  
University of Rhode Island

"... recommended reading for anyone engaged in  
research or teaching of ecological problems."  
-ASM News.

Notes, figures, tables, references.

400pp. 1976 \$22.95

LC 76-17507 ISBN 0-669-00855-9

Contributors discuss the transfer of matter across  
the five primary interfaces between the ocean and  
other environments and various forms of specific  
pollutants, then give recommendations for future  
research. Of interest to environmentalists,  
oceanographers, researchers, and all concerned  
with the decline of the marine environment.

## COASTAL RESOURCES MANAGEMENT

Beyond Bureaucracy and the Market  
- Robert B. Ditton, John L. Seymour, and  
Gerald C. Swanson

Studies in Marine Affairs Series

"...highly recommended." - Sport Fishing Institute  
Bulletin

"...valuable for exposing many issues fundamental  
to coastal resources management." -Growth & Change

Figures, notes, tables, index.

244pp. 1977 \$17.50

LC 76-25936 ISBN 0-669-00970-9

The authors develop a conceptual analysis and prac-  
tical understanding of coastal zone management. The  
book provides an interpretive narrative of the  
nature, operation, and deficiencies of coastal zone  
management.

Multi-disciplinary Studies on Hudson/James Bay  
University of Guelph  
28-30 April 1981

The Department of Land Resource Science, University of Guelph will be sponsoring a Symposium on the Scientific Studies of Hudson and James Bay. The objectives of the Symposium are to assess the current state of knowledge; report on research in the area; relate features and processes of this area to other similar arctic and sub-arctic zones; foster interdisciplinary interaction and determine needs for further research.

For Information write to: Professor I. P. Martini  
Department of Land Resource Science  
Ontario Agricultural College  
University of Guelph  
Guelph, Ontario N1G 2W1

CONFERENCES

Laramie, Wyoming	15-17 April 1980	Western Snow Conference
Seattle, Wash.	22-24 April 1980	6th Conference on Fire and Forest Sponsor: AMS-Society of American Foresters. Meteorology.
Kingston, Ont.	19-22 May 1980	Great Lakes - '80 Sponsor: International Association for Great Lakes Research (IAGLR)
Toronto, Ont.	22-27 May 1980	AGU Spring Meeting; 14th CMOS Congress
Toronto, Ont.	May 1980	Hydrology of Developed Areas. Sponsor: AGU - Canadian Associate Committee on Hydrology
Kelowna, B.C.	4-6 June 1980	33rd Annual Canadian Water Resources Sponsor: CWRA Association Conference
Syracuse, N.Y.	April 1981	Long Range Transport of Airborne Sponsor: AMS-CMOS Pollutants
Guelph, Ont.	28-30 April 1981	Symposium on Multi-disciplinary Studies on Hudson/James Bay.
Saskatoon, Sask.	26-29 May 1981	15th Annual CMOS Congress
Toronto, Ont.	16-18 June 1981	4th Conference Atmospheric Radiation Sponsor: AMS-CMOS
Edmonton, Alta.	20-21 October 1980	National Heat Transfer Symposium. Sponsor: Canadian Societies for Chemical Engineering and Mechanical Engineering.

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# FOURTEENTH ANNUAL CONGRESS OF CMOS

## Summary of Sessions

Wednesday, May 21			Location
0930 - 1200		Editorial Committee Meeting	Pier 9
0930 - 1200		Public Information Committee	Pier 6
1300 - 1415		GARP Scientific Committee Meeting	Pier 9
1415 - 1700		Scientific Committee Meeting	Pier 9
1930 - 2300		CMOS Council Meeting	Pier 9
Thursday, May 22			
0800 - 1215	1A	Remote Sensing: The NOSS system and Ocean Applications	Pier 7 + 8
0830 - 1210	1B	Pre-Pleistocene Climates I	Metro Centre
0900 - 1200	1C	Remote Sensing and Radiation	Bay Room
1330 - 1720	2A	Pre-Pleistocene Climates II	Metro Centre
1330 - 1655	2B	Ocean Dynamics of the Outer Grand Banks	Harbour B
1330 - 1630	2C	Lake and Ocean Sediments	Bay Room
1930 - 2000		AGU/CMOS Social	Foyer outside of Harbour B
2000 - 2200		Annual General Meeting of the CMOS	Pier 2 + 3
Friday, May 23			
0800 - 1210	3A	Lagrangian and Eulerian Studies of Ocean Currents	Harbour B
0800 - 1225	3B	Paleo-Oceanography	Harbour A
0800 - 1230	3C	Ocean Climate	Metro Centre
1330 - 1745	4A	Atmospheric Chemistry	Queen's Quay
1330 - 1715	4B	Measurements in the Gulf Stream	Harbour B
1330 - 1630	4C	Waves and Air-Sea Interaction	Metro Centre
Saturday, May 24			
0830 - 1205	5A	Southern Ocean Studies I	Harbour B
0900 - 1215	5B	Analysis and Weather Forecasting	Pier 2 + 3
1330 - 1700	6A	Thunderstorms, Lightning and Cloud Physics	Pier 2 + 3
1330 - 1655	6B	Southern Ocean Studies II	Harbour B
1330 - 1645	6C	Ocean Modelling	Pier 4

Monday, May 26

			Location
0830 - 1200	7A	Boundary Layer and General Meteorology	Pier 5
0830 - 1145	7B	Coastal and Lake Dynamics	Metro West
0830 - 1230	7C	Trace metal and Radioisotope Marine Geochemistry	Harbour C
1200		CMOS Awards Luncheon Speaker: F.K. Hare, Provost, Trinity College Topic: Awareness of Climate	Captain John's Flag Ship
1330 - 1720	8A	Particle Size and Flux measurements in Marine and Fresh Water Systems	Harbour C
1330 - 1715	8B	Tidal Hydrodynamics of Semi-enclosed Basins and Coastal Regions	Metro West
1330 - 1645	8C	Mixed Layer and Upper Ocean Studies	Harbour B

Tuesday, May 27

0830 - 1200	9A	Marine Geochemistry	Metro East
0800 - 1200	9B	Arctic Geophysics and Oceanography I: LOREX and FRAM I	Metro West
0900 - 1215	9C	Large Scale Dynamics and Climate	Pier 2 + 3
1330 - 1715	10A	Arctic Geophysics and Oceanography II: LOREX and FRAM I	Metro West
1330 - 1645	10B	Pacific Equatorial and Shelf Dynamics	Metro East