



Canadian Meteorological
and Oceanographic
Society

La Société Canadienne
de Météorologie et
d'Océanographie

C.M.O.S. NEWSLETTER / NOUVELLES S.C.M.O.

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Medal Presented at Shipboard Ceremony

The Canadian Meteorological and Oceanographic Society (CMOS) has presented a replica of its John P. Tully medal to the Canadian hydrographic and oceanographic ship of the same name.

The medal was presented at an onboard ceremony by Dr. Paul Greisman, senior physical oceanographer with Dobrocky Seatech Limited and chairman of the Vancouver Island Centre. Shown receiving the medal is Dr. C.R. Mann, Director-General of the Institute of Ocean Sciences, home of the C.S.S. John P. Tully.

The John P. Tully medal was struck by CMOS to honour scientists whose contributions have had significant impact on Canadian Oceanography. The first issue was presented to Dr. Tully himself in 1984, and in 1985, the medal was awarded to Dr. W.L. Ford, a pioneering east coast oceanographer.

The C.S.S. John P. Tully was launched in 1984, went into service in 1985 and like CMOS's medal, recognizes the accomplishments of the man known as the "Father of West Coast Oceanography".

NEWS FROM THE EXECUTIVE AND COUNCIL

PUBLICATIONS:

1. Subscription exchanges: Atmosphere-Ocean for equivalent publications of the Main Geophysical Laboratory in Leningrad and the Meteorological Department of the Humboldt University in East Berlin, have been arranged.

CHINOOK PROMOTIONS:

1. An advertisement for Chinook has been placed in the Youth Science Newsletter with a circulation of approximately 10,000, and advertising will be forthcoming in the AMS Bulletin.
2. Flyers and sample copies are available for distribution through CMOS Centres. Suggestions from members, for promotional distribution, will be welcomed by:

Hans Van Leeuwen
Atmospheric Environment Service
4905 Dufferin Street
Downsview, Ontario,
M3H 5T4

3. The Executive is actively seeking a volunteer, preferably in the Toronto area, to head up the Chinook promotional campaign.

CONGRESSES:

1. The Congress Guidelines have been brought up-to-date and are being translated into French. Copies may be obtained from the Executive Director.
2. The theme of the 1987 Congress, to be held in St John's, Nfld., will be "Predictability of the Atmosphere and the Ocean".
3. Council is recommending Toronto and Rimouski as the sites for the 1988 and 1989 Congresses, respectively.

SPECIAL INTEREST GROUPS:

1. The Hydrological SIG is planning a dinner meeting at the 1986 Congress in Regina.

YOUTH SCIENCE FAIR:

Prizes will be awarded for the best entries in meteorology and oceanography, at the Canada-wide Youth Science Fair. The Alberta Centre will be asked to send judges.

COMMITTEES:

Council has recommended the establishment of an Education Committee for Oceanography, for a period of two years after which its status will be reviewed. The following nominations to membership on the Committee were approved:

Dr. A. Bowen	Dalhousie University
Dr. J.C. Brêthes	U. Québec à Rimouski
Dr. F. Calvert	U. of British Columbia
Dr. A. Cardinal	Laval University
Dr. A. Hay	Memorial University
Dr. L. Hobson	U. of Victoria
Dr. G. Ingram	McGill University
Dr. T. LeBlond	U. of British Columbia
Dr. P.C. Smith	Bedford Institute of Oceanography
Ex-officio (Chairman of Meteorology Education Committee)	
Dr. R.R. Rogers	McGill University

Members with concerns relevant to this Committee should contact one of the above.

WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT:

The Executive received an invitation for contributions to the Public Hearings of the Commission in Ottawa, May 26 and 27. The sessional themes are:

1. "Environmental Management and Economic Development"
2. "Industry and Sustainable Development"
3. "International Cooperation: Environmental Security"
4. "Development Assistance and the Environment"

These will be followed by an "open session".

CMOS Executive Director, Uri Schwarz, will be representing the Society, and members are invited to communicate with him on the subject of the Commission Hearings.

THE UNIVERSITY OF ALBERTA
DEPARTMENT OF GEOGRAPHY
DIVISION OF METEOROLOGY

Applications are invited from suitably qualified candidates for a sessional appointment in Meteorology for the 1986-87 academic year (Sept. 1986 to April 1987). The primary responsibility of the candidate will be to teach four half courses - meteorological thermodynamics; physical meteorology (including radiation, radar meteorology and the middle atmosphere); introductory dynamic meteorology; advanced meteorology. Research will also be encouraged.

Applicants must have post-doctoral experience. The University of Alberta is an equal opportunity employer but, in accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

Salary will be in the range of \$22,737-\$30,316. Please write for further particulars and send applications by April 1, 1986, complete with Curriculum Vitae and the names of three references to:

Chairman Prof. E.R. Reinelt, Assistant

Department of Geography
University of Alberta
Edmonton, Alberta, Canada
T6G 2H4

tel: (403) 432-5405



Environment
Canada

Environnement
Canada

Atmospheric
Environment
Service

Service
de l'environnement
atmosphérique

Senior Meteorologist

Environment Canada has openings for experienced meteorologists to perform analysis, prognosis and forecasting duties, coordinate and issue forecasts and warnings, provide specialist advice and conduct special projects at the Newfoundland Weather Center.

These positions involve shift work.

You require university graduation with specialization in physics, mathematics or meteorology and successful completion of an approved course in meteorology or a Masters Degree in Meteorology.

Significant experience is required in operational meteorology including forecasting and the provision of weather services. A knowledge of the English language is essential.

The salary range is from 41,344 - 46,760 per annum

Please forward your application before March 27, 1986 quoting competition number:
86-DOE-ATL-AES-OC-258 to:

J.A. Sutherland
Environment Canada
Atmospheric Environment Service
1496 Bedford Highway
Bedford, NS
B4A 1E5
(902) 835-4836

Canada

20TH ANNUAL CONGRESS

List of Sessions

Wed., June 4		
AM	1, 2	Plenary Sessions
PM	3A	Boundary-Layer Modelling
	3B	Deep-Sea Oceanography
	4A	Forecast Studies
	4B	Dynamic Meteorology
Thurs., June 5		
AM	5A	Mesoscale and Boundary-Layer Studies
	5B	MOIST
	6A	Evaporation
	6B	CASP
PM	7A	Precipitation Studies I
	7B	Coastal Oceanography I
	8A	Precipitation Studies II
	8B	Coastal Oceanography II
Fri., June 6		
AM	9A	General Meteorology I
	9B	Climate Studies
	10A	General Meteorology II
	10B	Sea State and Sea Ice

THE CANADIAN ATLANTIC STORMS PROGRAM (CASP) *****

On 15 January, 1986, after two years of preparation, the two-month field phase of the Canadian Atlantic Storms Program (CASP) began. CASP is part of the Canadian Mesoscale Meteorology Program which was identified as a primary research area of the Scientific Committee of CMOS after extensive consultations with the Canadian scientific community. The specific aim of CASP, Canada's first full-fledged joint meteorological/oceanographic study, is to improve the forecasting ability on the Atlantic coast with respect to winter storms and to improve our understanding of the response of the coastal sea, in terms of currents and waves, to mesoscale atmospheric forcing.

The Atmospheric Environment Service of Environment Canada is leading the CASP meteorological program; the Department of Fisheries and Oceans through the Bedford Institute of Oceanography is responsible for the oceanographic component. Other major participants include the Departments of National Defence, Transport, the National Research Council, the U.S. Office of Naval Research, the offshore petroleum industry and a number of universities: Dalhousie, Memorial, McGill, l'Université du Québec a Montreal and the University of Toronto. The major funding for the program is \$1.5 million contributed by the Panel on Energy Research and Development (PERD) of Energy, Mines and Resources.

CASP is taking place at the same time as the U.S. Genesis of Atlantic Lows Experiment (GALE). In designing both experiments, provision was made for studying storms that traverse both the U.S. and Canadian study areas.

The enhanced observations during CASP will focus on the mesoscale aspects of winter storms in the Nova Scotia/Sable Island and Avalon Peninsula/Avalon regions. During Intensive Observation Periods, enhanced rawinsonde ascent at 13 sites (including 6 established especially for CASP) will occur at intervals as frequently as 3 hours. Operations permitting, soundings will also be made by AES ice reconnaissance aircraft and DND Aurora patrol aircraft. At the same time, additional surface observations will be made by regular surface observing stations and by volunteer climatological observers who will communicate with the CASP Operations Center at Bedford, Nova Scotia via special computer terminals attached to their telephones.

Two mesoscale 10 m tower networks, one on mainland Nova Scotia and the other on Sable Island, automatically log wind velocity, temperature and humidity at 5 minute intervals. Selected stations in the mainland network radio data directly to the CASP Operations Center.

Canadian Forces Base Shearwater is the hub of activity for cloud physics research. Two aircraft, a Canada Center for Remote Sensing DC-3 and a National Aeronautics Establishment Twin Otter, are based there. Equipped with sophisticated sampling devices for sampling cloud and precipitation particles, and measuring air temperature, humidity and turbulence, these aircraft are flying into selected parts of the storm to observe the detailed structure and processes occurring within them. A special surface observing site is also located at Shearwater at which is located an upward looking microwave radiometer which estimates vertical sounding of temperature and humidity, including precipitable water and a two-dimensional precipitation probe which images precipitation photographically.

Precipitation observations are tied together spatially by three weather radars, scanning in a three-dimensional volume made at Halifax, Sable Island and Trepassey, Newfoundland.

Oceanographic observations are centered on a line of sensors extending 50 km offshore from the coast near Halifax which measures wave spectral energy, currents and wind speed. Two instruments that are being used are WOTAN (Wind Observations Through Ambient Noise), recording devices which estimate the surface wind speed by the acoustic energy in the 4.3, 8.0 and 14.5 KHz range, and CODAR (Coastal Ocean Dynamics) which will estimate surface currents via the Doppler shift in the radar returns from surface waves.

In the short term, these high density observations will be used by the specially established CASP Forecast Center to make high resolution meteorological forecasts for the CASP field experiments. The CASP Forecast Center will also test and evaluate experimental analysis and forecast products developed by AES, and sophisticated data display systems such as McIDAS (Mancomputer Interactive Data Acquisition System) and RAINSAT. McIDAS, developed by the University of Wisconsin, displays current visible and infrared images from the GOES satellite upon which can be superimposed meteorological fields such as isobars and precipitation type. RAINSAT displays infrared temperature, visible brightness from satellite observations. From these two fields and climatological considerations, RAINSAT estimates the probability of precipitation.

In the long term, the data will be analyzed by the investigators to increase our knowledge of the structure of Atlantic storms, the process leading their intensification and the response of the coastal ocean to them. This increased knowledge should lead to improved forecasting methods and increased safety for the public.

CMOS LOGO

The CMOS LOGO is clearly meteorological and oceanographic, but lacks Canadian identity. The addition of a maple leaf to our logo, as on the Tully Medal, is illustrated at the head of this issue of this Newsletter. The Executive intends to propose adoption of this revised Logo at the 1986 Annual General Meeting. Comments from members may be sent to the Executive Director at Suite 805, 151 Slater St., Ottawa, Ont., K1P 5H3.

NATURAL AND MAN-MADE HAZARDS

The Université du Québec à Rimouski will host the above named International Symposium from August 3 - 9, 1986. The Symposium is being sponsored by the Tsunami Society, CMOS is a co-sponsor in name only.

The objectives of the International Symposium are to promote the advancement of the hazards sciences, to perceive and exploit those aspects that are similar for some of the various hazards, to review the newest developments in a few selected fields, and also to outline new directions for future research. The hazardous aspects of the following topics will be included in the Symposium.

AIR

- Tropical and extra-tropical cyclones
- thunderstorms, squall lines, lightning, hail, rainfall, snow, acid rain, nuclear winter, carbon dioxide effects, climatic changes, clear air turbulence, air pollution, visibility, fog

WATER

- Tsunamis, storm, surges, wind waves, edge waves, swell, abnormal water levels, tides and tidal bores, hydraulic jumps, flash floods, water spouts, ice flows, icebergs, icing on marine structures, ice jams in rivers, ice ride-up on shore, man-made storage of water resources and their environmental effects, water pollution.

LAND

- Earthquakes, land slides, snow avalanches, floods and droughts, soil erosion, deforestation and desertification.

Those wishing to be on the mailing list for registration and housing information should contact:

DR. MOHAMMED EL-SABH
DEPARTMENT D'OCEANOGRAPHIE
UNIVERSITE DU QUEBEC A RIMOUSKI
310, AVENUE DES URSULINES
RIMOUSKI (QUEBEC)
B5L 3A1

TEL (418) 724-1755
SEC (418) 724-1770

IUGG IN VANCOUVER IN AUGUST 1987

THE 19TH GENERAL ASSEMBLY OF THE INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS (IUGG) WILL BE HELD AT THE UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER, DURING THE PERIOD 9-22 AUGUST 1987. THE INTERNATIONAL ASSOCIATIONS OF METEOROLOGY AND ATMOSPHERIC PHYSICS (IAMAP), PHYSICAL SCIENCES OF THE OCEANS (IAPSO) AND HYDROLOGICAL SCIENCES (IAHS), AS PARTS OF IUGG, WILL BE PARTICIPATING. THERE WILL BE MANY SESSIONS OF INTEREST TO METEOROLOGISTS, OCEANOGRAPHERS AND HYDROLOGISTS. TO RECEIVE FURTHER INFORMATION ON THE IUGG ASSEMBLY, WRITE TO:

IUGG XIX GENERAL ASSEMBLY
#801-750 JERVIS STREET
VANCOUVER
B.C.
V6E 2A9

DR. G.J. YOUNG ELECTED TO UNESCO BODY

It was announced in Ottawa November 22, 1986 that Dr. G.J. Young has been elected as Canada's representative on the International Hydrological Programme (IHP). Dr. Young is presently acting as Chief of Research Planning and Coordination with the Research Coordination and Planning Branch of Inland Waters Directorate in Ottawa.

CANADIAN EAST COAST WORKSHOP ON SEA ICE

Graham Symonds

This meeting, co-sponsored by CMOS and the Office for Energy Research and Development (OERD), was held at the Bedford Institute of Oceanography, January 7-9, 1986. Over 100 participants from Canada, the United States and Europe attended. Topics included ice climatology, ice and ice-ocean modelling, formation, movement and deformation of sea ice, icebergs, remote sensing and operational forecasting. In the final session, brief presentations of future research needs and proposals were made by a number of speakers from university, government and industry.

Several presentations through the modelling session highlighted the need for realistic ocean models coupled to large scale ice models if we hope to simulate the seasonal distribution of sea ice. The computing effort required is a constraint on these modelling efforts, and the model presented by A.J. Semtner (NCAR) showed considerable promise in significantly reducing the computing time, while retaining considerable detail in both space and time of atmosphere-ice-ocean interaction. R. Colony (U. of W.) disputed the usefulness of large scale strain derived from an ice displacement field. Two fundamental problems are, the ice velocity field is not differentiable, and ice deformation is an irreversible process. The implication is large scale strain may not be able to provide useful information on ice deformation which, for example, is used to derive thickness distributions affecting large scale heat exchange. A number of papers from both government and industry highlighted the usefulness of remote sensing for both research and operational needs and pointed to the need for considerable effort to realize the full potential of future remote sensing products over the next decade.

A proceedings containing abstracts and manuscripts is to be published in the technical report series of Hydrography and Ocean Sciences and should be available late in the Spring, 1986.

I would like to take this opportunity to thank all those who attended and helped make the meeting a success. Special thanks go to Ingrid Peterson, David Hendsbee and BIO staff who assisted in preparations before and during the meeting.

AES/OSS/CMOS LECTURE TOUR, 1986-87

CMOS members, committees and other groups are invited to submit suggestions for the 1986-87 AES/OSS/CMOS Lecture Tour to the CMOS Corresponding Secretary (Dr. John Loder, Atlantic Oceanographic Laboratory, Bedford Institute of Oceanography, P.O. Box 1006, Dartmouth, N.S. B2Y 4A2; 902/426-4960). It is anticipated that the tour will take place during the fall of 1986 or winter of 1987, and will include visits to the twelve Centres and the New Brunswick Chapter of CMOS. Suggestions regarding the tour speaker or speakers, lecture topics and other aspects of the tour are welcomed. The annual AES/OSS/CMOS Lecture Tour is funded by the Atmospheric Environment Service of the Department of Environment, and Ocean Science and Surveys of the Department of Fisheries and Oceans, and is organized by CMOS.

CMOS MEMBERSHIP

The Canadian Meteorological and Oceanographic Society (CMOS) exists for the advancement of Meteorology and Oceanography (including Limnology). Membership in the Society is open to persons and organizations sharing these interests. There are 3 types of membership - Regular Member, Student Member, and Corporate Member. For 1986 the dues and subscription fees are shown below.

CMOS is a dynamic force in the Canadian meteorological and oceanographic community. An active scientific committee continually monitors trends and activities in the fields of meteorology and oceanography and recommends action. Other committees are concerned with education, professionalism, publications, and awards to individuals or groups who have made outstanding contributions to meteorology and oceanography. CMOS publishes the scientific journals "Atmosphere Ocean" and "Climatological Bulletin", the popular weather and oceanographic magazine "Chinook", as well as this Newsletter. Membership in CMOS entitles one to reduced subscription rates to these publications, as well as special registration fees for most CMOS-sponsored congresses and workshops. Positive results of the Society are felt by the community as a whole, as well as individuals within the community.

In order to continue these activities, the Society needs the participation of as large a proportion of the meteorological/oceanographic community as possible. Please help the Society grow by passing the membership application form to a colleague.

MEMBERSHIP AND SUBSCRIPTION FEES FOR 1986 COTISATIONS ET ABONNEMENTS ANNUELLES (1986)

MEMBERSHIP FEES/COTISATIONS DES MEMBRES

Regular/Régulier	\$25.00
Student/Étudiant	\$20.00
Corporate/Corporation (min.)	\$125.00

ATMOSPHERE-OCEAN/ATMOSPHERE-OCEAN

Members/Membres	\$20.00
Non-Members/Non-Membres	\$30.00
Institutions	\$55.00

CLIMATOLOGICAL BULLETIN

Members and Students/Membres et Étudiants	\$12.00
Non-Members/Non-Membres	\$15.00
Institutions	\$15.00

CHINOOK

Members and Students/Membres et Étudiants	\$10.00
Non-Members/Non-Membres	\$12.00
Institutions	\$15.00

Note: 1. Regular Membership includes Newsletter.
2. Student Membership includes Newsletter and Atmosphere-Ocean.
3. Corporate Members receive all regular publications.

Note: 1. Membre Régulier inclus Le Bulletin
2. Membre Étudiant inclus Le Bulletin et Atmosphere-Océan.
3. Tous les périodiques sont envoyés aux membres corporatifs

La Société Canadienne Météorologique et Océanographique

La Société Canadienne Météorologique et Océanographique (SCMO) existe pour l'avancement de ces deux disciplines scientifiques (qui inclut entre autre la Limnologie). L'adhésion à cette Société vise les personnes ou organisations qui partagent ces intérêts. La Société reconnaît trois catégories d'adhésion - membre régulier, membre étudiant et membre corporatif - dont les frais de souscription sont mentionnés ci-bas.

La SCMO demeure une force dynamique dans la communauté météorologique et océanographique canadienne. Un comité scientifique actif poursuit un sondage des activités et de l'évolution de ces deux disciplines pour y porter action et/ou recommandations. D'autres comités se concernent du professionnalisme, de l'éducation, des publications et des octroies aux individus ou groupes qui contribuent d'une façon exceptionnelle soit à la Météorologie ou à l'Océanographie. La SCMO publie les périodiques scientifiques; "Atmosphère-Océan", et "Bulletin Climatologique", la revue populaire, "Chinook" ainsi que le présent Bulletin de Nouvelles. L'adhésion à la SCMO permet une souscription à prix réduit de ses publications ainsi que des frais d'enregistrement réduits pour colloques et ateliers sous le patronage de la Société. Des résultats positifs se font sentir de la part de la communauté et de ses membres.

Pour porter bonne fin à ces activités, la Société exige la participation du plus grand nombre possible de la communauté météorologique et océanographique. Veuillez à ceci en distribuant la présente forme de souscription parmi vos collègues.

MEMBERSHIP APPLICATION FORM - DEMANDE D'ADHESION

Title/Titre _____
Name/Nom _____
Address/Adresse _____

Postal Code/Code Postal _____
Telephone/Téléphone (res./maison) _____
(bus./travail) _____
Occupation/Emploi _____

Membership Category - Catégorie de Membre (please check) (cochez s.v.p.)

Regular Student Corporate
Régulier Étudiant Corporation

Primary Field of Interest - Sphere d'Intérêt Principal

Meteorology - Météorologie _____
Oceanography - Océanographie _____

Special Interest Group - Groupe d'Intérêt Spécial

Hydrology - Hydrologie _____
Air Pollution - Pollution de l'air _____
Agriculture and Forest - Agriculture et forêt _____
Operational Meteorology - Météorologie d'exploitation _____
Floating Ice - Glace dérivante _____

Subscriptions - Abonnement aux Périodiques

Atmosphere-Ocean - Atmosphère-Océan _____
Climatological Bulletin _____
Chinook _____

Mail Completed Form and Cheque to:

Faire parvenir la demande d'adhésion complétée et chèque à:
CMOS - SCMO
Suite B05
151 Slater St.
OTTAWA, Canada
K1P 5H3

Note: Applications received after Oct. 1 are applied to the following year unless otherwise requested.

Note: Les demandes d'adhésion reçues après le 1er oct. sont pour l'année suivante à moins qu'elle soit requise pour l'année en cours.

NEW CMOS MEMBERS APPROVED
AT
EXECUTIVE MEETING 5th DEC. 1985

NAME	ADDRESS	CENTRE
Miss Eve Christian (Student)	Mont St-Hilaire, Quebec	Montreal
Mr. Bevan D. Lawson (Meteorologist)	Winnipeg, Manitoba	Winnipeg
Mr. Diep N. Trat (Student)	Halifax, N.S.	Halifax
Mr. Bruno Grenier (Student)	Regina, Sask.	Saskatchewan
Mr. John B. Merrick (Meteorologist)	Bedford, N.S.	Halifax
Miss Karine Langley (Student)	St. John's, Nfld	Newfoundland
Mr. Arvids Silis (Student)	Guelph, Ontario	Toronto
Mr. Owen S. Lange (Meteorologist)	North Vancouver,	B.C. Mainland
Dr. John C. Lewis (Associate Professor)	St. John's, Nfld.	Newfoundland
Mr. John W. Sowden (Meteorologist Retired)	Nepean, Ontario	Ottawa
Mr. Ed Becker (Meteorologist)	Kinburn, Ontario	Ottawa
Dr. R. Allyn (Oceanographer)	Dartmouth, N.S.	Halifax
Mr. Michel Desgagne (Student)	Montreal, Quebec	Montreal
Mr. Jean Gagnon (Oceanographer)	Ottawa, Ontario	Ottawa
Mr. H.P. Schmid (Student)	Vancouver, B.C.	B.C. Mainland
Mr. William Smyth (Student)	Toronto, Ontario	Toronto
Mr. K. G. Anderson (Engineer)	Dartmouth, N.S.	Halifax
Mr. Nikolaos Balaskas (Marine Climatologist)	Downsview, Ontario	Toronto
Mr. Barry Julien (Meteorologist)	Edmonton, Alberta	Alberta
R.M. Young Company (Corporate Member)	Traverse City, MI, U.S.A.	
Mr. Scott M. Robeson (Student)	Vancouver, B.C.	B.C. Mainland
Dr. John Derek Wilson (Assistant Professor)	Edmonton, Alberta	Alberta

NEW CMOS MEMBERS APPROVED
AT
JANUARY 10, EXECUTIVE MEETING

NAME	ADDRESS	CENTRE
Mr. James E. Ploc (Meteorologist)	Edmonton, Alberta	Alberta
M. Gilles Simard (Etudiant)	Montreal, Quebec	Montreal
Dr. Ertugrul Alp (Engineer)	Downsview, Ontario	Toronto
M. Bernard Marsan (Student)	Rimouski, Quebec	Rimouski
M. Marc Pelletier (Oceanographe)	St. Romuald, Quebec	Quebec
Ms. Nicole Benchimol	Vancouver, B.C.	B.C. Mainland
Dr. Vit Klemes (Research Scientist)	Ottawa, Ontario	Ottawa
Mr. Avar Mann (Meteorologist)	Edmonton, Alberta	Alberta
Mr. Mitchell M. Sisak (Environmental Consultant)	Montreal, Quebec	Montreal
Mr. Richard Verret (Meteorologiste)	Ste-Dorothee, Laval	Montreal
Dr. Richard K. Dewey (Student)	Sidney, B.C.	Vancouver Island
Maj. Barrie Towill (Ocean Acoustics)	Dartmouth, N.S.	Halifax
Ms. Teresa Canavan (Meteorologist)	Halifax, N.S.	Halifax
M. Gerald N. Griffin (Etudiant)	Quebec, Quebec	Quebec
Dr. William Hendershot (Asst. Professor)	Ste. Anne-de-Bellevue Quebec	Montreal
M. Luc Roseberry (Etudiant)	Rimouski, Quebec	Rimouski
Mr. Jerry A. Williams (Certified Consulting Meteorologist)	San Jose California	
Mr. Michael Foreman (Numerical Modeller)	Sidney, B.C.	Vancouver Island
Mr. Hlynur Sigtryggsson (Meteorologist)	Reykjavik, Iceland	
Mr. Greg Warbanski (Environmental Supervisor)	St. John's, Nfld.	Newfoundland
Mr. Eugene V. Guy (Researcher)	St. John's, Nfld.	Newfoundland

Mr. Yon-Huang Jin (Student)	St. John's, Nfld.	Newfoundland
Mr. Dermott P. Kearney (Student)	St. John's, Nfld.	Newfoundland
Dr. Savithri Narayanan (Physical Oceanographer)	St. John's, Nfld.	Newfoundland
Dr. Brian R. Seymour (Professor)	Vancouver, B.C.	B.C. Mainland
Dr. A.S.J. Swamidas (Assoc. Professor)	St. John's, Nfld	Newfoundland

NEW CMOS MEMBERS APPROVED
AT
EXECUTIVE MEETING 10 - 11 FEB. 1986

NAME	ADDRESS	CENTRE
Mr. M. Denis Proulx (Student)	Rimouski, Quebec	Rimouski
Mr. Christian J. Doyle (Student)	Edmonton, Alberta	Alberta
Dr. James Rossiter (President)	Toronto, Ontario	Toronto
Mr. Alain Armellin (Etudiant)	Rimouski, Quebec	Rimouski
Mr. G.R. Davis (Student)	Oxford, England	
Ms. Monique Leclerc (Student)	Guelph, Ontario	Toronto
Miss Lorraine Veilleux (Etudiante)	Montreal, Quebec	Montreal
Mr. Eugene B. Colbourne (Student)	St. John's, Nfld.	Newfoundland
Mr. Austen M. Oake (Oceanographer)	Halifax, N.S.	Halifax
Mr. Wayne Richardson (Engineer/Scientist)	Ottawa, Ontario	Ottawa

THIRD CANADIAN CONFERENCE ON MARINE GEOTECHNICAL ENGINEERING
ST. JOHN'S, NEWFOUNDLAND
JUNE 11-13, 1986

The Conference objective is to provide a forum for technical information exchange on offshore geotechnology. As well as technical sessions and keynote speakers, poster sessions and technical exhibits will also be included.

The Conference will include sessions devoted to the following themes:

- I and II - Canadian East Coast
- III - Foundation Behaviour
- IV - In-Situ Measurements
- V - Canadian Beaufort Sea
- VI - Beaufort Sea Structures
- VII - Ice/Seabed Interaction
- VIII - Seabed Stability
- IX - Foundation Analysis
- X - Site Investigation
- XI - Soil Properties I
- XII - Soil Properties II
- XIII - Geotechnical Codes and Regulations - Panel Discussion

For further information on the Conference please write to:

Third Canadian Conference on Marine Geotechnical Engineering
C-CORE
Memorial University of Newfoundland
St. John's
Newfoundland
A1B 3X5
(709) 737-8354

CALL FOR PAPERS
CLIMATE AND WATER MANAGEMENT - A CRITICAL ERA
AUGUST 4-7, 1986



THE HUMAN CONSEQUENCES OF 1985'S CLIMATE
AUGUST 11-12, 1986

INN ON THE PLAZA
ASHEVILLE, NORTH CAROLINA

SPONSORED BY:
NATIONAL CLIMATIC DATA CENTER • AMERICAN METEOROLOGICAL SOCIETY
CO-SPONSORED BY:
NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION
NMC/Climate Analysis Center • Assessment and Information Service Center
NWS/Office of Hydrology
U.S. GEOLOGICAL SURVEY • AMERICAN ASSOCIATION OF STATE CLIMATOLOGISTS
INTERSTATE CONFERENCE ON WATER PROBLEMS • TENNESSEE VALLEY AUTHORITY

CLIMATE AND WATER MANAGEMENT - A CRITICAL ERA
August 4-7, 1986

This conference will emphasize the increasingly critical role, use, and requirements of climatological data in water management decisions and policies. Its goal is to share knowledge and provide information that will help determine if the climatological probability envelope is consistent with water management decisions and policies. This conference will be divided into four sections: Urban, Rural, Regional (NW,SW,NC), Regional (SC,NE,SE). Papers are solicited for each section on the topics listed below. Other papers will be selected on overall relevance.

- | | | |
|---------------------|----------------------------|------------------------------|
| • Human Consumption | • Wetlands | • Industrial Usage |
| • Agriculture | • Water Quality | • Acid Rain |
| • Transportation | • Recreation | • Surface Water Availability |
| • Energy | • Groundwater Availability | |
- Abstracts due February 1, 1986 - Notification of Acceptance March 15, 1986
Final Papers Due May 1, 1986

THE HUMAN CONSEQUENCES OF 1985'S CLIMATE
August 11-12, 1986

This first annual conference, document and explore the human and economic response to climate/weather variability at different scales of time, space, and severity over the past year to eighteen months. Papers are solicited that summarize the general weather conditions revealing, where possible, the human responses to these weather conditions.

- | Climate | Scales | Typical Responses |
|-----------------------|------------|-----------------------|
| • Anomalies | • National | • Evacuations |
| • Unusual Phenomena | • Regional | • Early Harvest |
| • Climate Variability | • State | • Reduced Consumption |
| • Extreme Events | • Local | • New Building Codes |
- Abstracts due February 1, 1986 - Notification of Acceptance March 15, 1986
Final Papers Due May 1, 1986

SEND ABSTRACTS BY FEBRUARY 1, 1986 TO:
National Climatic Data Center
Attention: Water Management or Human Consequences Program
Federal Building
Asheville, North Carolina 28801
Page Charges will be Assessed to Defray Cost of Printing

NEWSLETTER SUBMISSIONS

The following summarizes the publishing schedule for future issues of the Newsletter. The editor would appreciate receiving material in ELITE type print, 12 pitch, and set in columns of 13 cm width where possible.

REVISED DEADLINE FOR SUBMISSIONS	VOLUME AND ISSUE
FEB. 28, 1986	APRIL VOL 14 NO.2 (ANNUAL REVIEW)
JUNE 20, 1986	JUNE VOL 14 NO.3
AUG. 15, 1986	AUGUST VOL 14 NO.4*
SEP. 19, 1986	SEPTEMBER VOL 14 NO.5
DEC. 12, 1986	DECEMBER VOL 14 NO.6

* VOL 14 No.4 will include a membership list.

NOTICE TO ALL MEMBERS

In accordance with By-Law 10, Meetings, of the Canadian Meteorological and Oceanographic Society, I am giving notice that the Annual General Meeting will be held on Wednesday, June 4, 1986 at 7:30 P.M. in the ADHUM Board-room at the University of Regina, Regina, Saskatchewan. This meeting will include those items listed under By-Law 10(d) which reads:

"A General Meeting, to be called the Annual General Meeting, shall be held each year, on a day and at an hour to be determined by Council, to receive the reports of Council, the auditor or auditors, and the ballot counters, to establish the fees for the next calendar year, to discuss and determine such questions as may be proposed relative to the affairs of the Society, to appoint an auditor or auditors for the ensuing year, and to install the Council elected for the ensuing year."

The agenda for the Annual General Meeting will be published in the Annual Review which will be mailed to all members before the AGM.

John W. Loder
Corresponding Secretary
902/426-4960

NOTICE TO ALL MEMBERS

In accordance with By-Law 4(c) of the Canadian Meteorological and Oceanographic Society, I am providing you with:

- A) The list of members of the current Council;
- B) The list of nominations for 1986/87 made by the Nominating Committee;
- C) A copy of By-Law 4(d).

The Council of the Canadian Meteorological and Oceanographic Society for 1985/86 consists of:

President	Dr. Stuart D. Smith
Vice-President	Mr. William S. Appleby
Treasurer	Mr. J.M. Raymond St-Pierre
Corresponding Secretary	Dr. John W. Loder
Recording Secretary	Dr. H. Jean Thiebaut
Past President	Dr. Neil J. Campbell
Councillors-at-large	Mr. Ronald F. Hopkinson
	Mr. Robert Jones
	Dr. Edward P. Lozowski
Local Centre Chairmen	Elected locally

The nominations for Council for 1986/87 are: Mises en Candidature pour le Conseil pour 1986-1987:

President	Mr. William S. Appleby
Vice-President	Dr. H. Jean Thiebaut
Treasurer	Mr. J.M. Raymond St-Pierre
Corresponding Secretary	Dr. Donald J. Lawrence
Recording Secretary	Dr. Rod Shaw
Councillors-at-large	Mr. James G. Bruce
	Dr. Mohammed El-Sabbh
	Dr. Brian G. Sanderson
Past President	Dr. Stuart D. Smith, (already elected)
Local Centre Chairmen	Elected locally

The nomination for auditor is: Touche Ross & Co.

AVIS A TOUS LES MEMBRES

Conformément au Règlement 10 de la Société de météorologie et d'océanographie, je donne l'avis que l'Assemblée générale annuelle aura lieu mercredi, le 4 juin 1986 à l'Université du Regina à Regina (Saskatchewan), dans la Chambre du conseil ADHUM, à 19h 30. Cette assemblée examinera les points contenus dans l'Article 10(d) qui se lit:

"Une Assemblée générale, appelée l'Assemblée générale annuelle, est tenue chaque année, au jour et à l'heure déterminés par le Conseil d'administration, afin d'approuver le procès verbal de l'Assemblée générale annuelle précédente, de prendre connaissance des rapports du Conseil d'administration, du (des) vérificateur(s) et des scrutateurs, de fixer les montants des cotisations pour la prochaine année civile, de discuter et de prendre des décisions sur les questions concernant les affaires de la Société, de choisir un (des) vérificateur(s) pour l'année suivante, et de procéder à l'investiture des administrateurs élus pour l'année suivante."

L'ordre du jour pour l'Assemblée générale annuelle sera publié dans la Revue générale qui sera posté à tous les membres avant l'AGA.

Selon les termes de l'Article 4(c) des Règlements de la Société de météorologie et d'océanographie, je vous fais parvenir:

- A) La liste des membres du Conseil en cours;
- B) La liste des mises en candidature pour 1986-1987 telle que rédigée par le Comité des mises en candidature;
- C) Une copie de l'Article 4(d).

Le Conseil de la Société canadienne de météorologie et d'océanographie pour 1985-1986 se compose comme suit:

Président
Vice-Président
Trésorier
Secrétaire correspondant
Secrétaire d'Assemblée
Président sortant
Conseillers

Présidents Régionaux
(élu localement)

Président
Vice-Président
Trésorier
Secrétaire correspondant
Secrétaire d'Assemblée
Conseillers

Président sortant

Présidents régionaux
(élu localement)

Vérificateur

By-Law 4(d)

Nominations (in addition to those made by the Nominating Committee) will be accepted by the Recording Secretary up to the last day of March, provided -

- I) That the nominee is eligible for the office for which he is nominated;
- II) That the nominee acknowledges his willingness to accept office if elected by signing the nomination, and
- III) That the nomination is signed by four members.

Nominations should be sent to the Recording Secretary at the following address:

Canadian Meteorological and Oceanographic Society
Attn: Recording Secretary
151 Slater, Suite 805
Ottawa, Ontario
K1P 5H3

If the deadline is unlikely to be met by mail, please contact the Corresponding Secretary by telephone.

John W. Loder
Corresponding Secretary/Secrétaire correspondant
(902) 426-4960

NOTICE TO ALL MEMBERS

Re: Proposed CMOS Constitution and By-Laws

In accordance with Article 5(a) and By-Law 1(a) of the CMOS Constitution and By-Laws, I hereby give notice that CMOS Council will be making a motion to the 1986 Annual General Meeting that the existing CMOS Constitution and By-Laws be repealed and that a new CMOS Constitution and new By-Laws be enacted.

The English version of the proposed new Constitution and By-Laws is included in this Newsletter, and the French version will be available from the CMOS Executive Director (Mr. Uri Schwarz, CMOS, 151 Slater Street, Suite 805, Ottawa, Ontario, Canada K1P 5H3) after April 15, 1986 and at the Annual General Meeting.

The proposed new Constitution and By-Laws were approved by CMOS Council at its 10-11 February 1986 meeting, and are the culmination of the effort of CMOS Executive and Council, and several committees and working groups over the past three years. An earlier draft version of the proposed Constitution and By-Laws was published in the CMOS Newsletter - in English in the July 1985 issue (Vol. 13, No. 3) and in French in the August 1985 issue (Vol. 13, No. 4). The major objectives of this considerable effort have been to bring the Constitution and By-Laws up to date and in line with the Society's Corporate status and with current practices and procedures, and to make the document less bureaucratic, easier to read, and more useful to the Society and its members.

John W. Loder
Corresponding Secretary

Article 4(d)

Les mises en candidature (en plus de celles proposées par le Comité des mises en candidature) seront acceptées par le Secrétaire d'Assemblée jusqu'au dernier jour de mars, pourvu -

- I) Que le candidat soit éligible au poste pour lequel il est présenté,
- II) Que le candidat confirme son intention d'accepter le poste advenant son élection en signant l'acte de mise en candidature, et
- III) Que l'acte de mise en candidature soit signé.

Les mises en candidature devraient être envoyées au Secrétaire d'Assemblée à l'adresse suivante:

Canadian Meteorological and Oceanographic Society
Attn: Recording Secretary
151 Slater, Suite 805
Ottawa, Ontario
K1P 5H3

Si vous craignez que le courrier ne puisse nous atteindre avant la date de l'échéance, veuillez contacter le Secrétaire correspondant par téléphone.

AVIS A TOUS LES MEMBRES

Sujet: Constitution et règlements proposés pour la SCMO

Conformément à l'article 5(a) et au règlement 1(a) de la Constitution et règlements de SCMO, j'annonce par la présente que le Conseil présentera une motion à l'assemblée générale annuelle afin que la présente Constitution et les règlements de SCMO soient abolis et qu'une nouvelle Constitution et de nouveaux règlements soient adoptés.

La version anglaise de la nouvelle Constitution et des règlements proposés est incluse dans le présent bulletin alors que la version française sera disponible à partir du 15 avril 1986 (Directeur de l'exécutif de la SCMO, M. Uri Schwarz, CMOS, 151 Slater Street, Suite 805, Ottawa, Ontario, Canada K1P 5H3) ou à l'assemblée annuelle.

La nouvelle Constitution et les règlements proposés ont déjà été approuvés lors de l'assemblée des 10-11 février 1986 et sont le résultat des efforts conjugués de l'exécutif et du Conseil de la SCMO ainsi que des invités et divers groupes de travail au cours des trois dernières années. Un premier jet de la version proposée pour la Constitution et des nouveaux règlements a été publié dans le bulletin SCMO en anglais dans le numéro de juillet 1985 (Vol 13, No 3) et en français dans le numéro d'août 1985 (Vol 13, No 4). Les objectifs premiers de cet effort majeur ont été non seulement la mise à jour de la constitution et des règlements, mais leur alignement sur le statut corporatif de la Société, ses procédures et pratiques courantes; ceci afin de rendre le document moins bureaucratique, plus facile à lire et plus utile à la société et tous ses membres.

John Loder
Secrétaire à la correspondance

C O N S T I T U T I O N

THE CANADIAN METEOROLOGICAL AND OCEANOGRAPHIC SOCIETY

ARTICLE 1 - Name and Seal

The name of the Society is the Canadian Meteorological and Oceanographic Society - La Société canadienne de météorologie et d'océanographie. Its corporate seal is the impression stamped at the head of this Constitution.

ARTICLE 2 - Aim

The Society exists for the advancement of meteorology and oceanography in Canada.

ARTICLE 3 - Membership

Membership is open to persons and organizations having an interest in meteorology or oceanography.

ARTICLE 4 - The Executive and Council

The Executive of the Society consists of the President, the Vice-President, the Treasurer, the Corresponding Secretary, and the Recording Secretary. It also includes the Executive Director and Publications Business Manager who are ex-officio and without voting privileges. The Council of the Society consists of the Executive, the immediate Past President, the Councillors-at-Large, and the Chairmen of the Centres.

ARTICLE 5 - Changes to the Constitution or By-Laws

- a) A notice of motion for changes (enactments, repeals, or amendments) to the Constitution or By-Laws shall be delivered in writing over the signatures of at least five members to the Corresponding Secretary, or shall be proposed by Council. The proposed changes, together with the reasons therefore, shall be published in the Newsletter or mailed to all members.
- b) Members shall vote on the proposed changes either by mail ballot or at a general meeting as decided by Council. In the case of a vote at a general meeting, the changes shall be sent to members at least two months prior to the meeting. Mail ballots shall include a notice that only ballots received by the Corresponding Secretary before a specified counting date will be counted. The counting date shall be at least two months after the mailing of ballots.
- c) The adoption of a proposed change to the Constitution shall require the affirmative votes of at least two-thirds of all members voting.
- d) The adoption of a proposed change to the By-Laws shall require the affirmative votes of a simple majority of all members voting.
- e) Any such changes to the Constitution or By-laws shall not be enforced or acted upon until the approval of the Minister of Consumer and Corporate Affairs has been obtained.

ARTICLE 6 - Non-Profit Status

The Society does not have as its purpose financial gain for its members and any profits or other accretions to the organization shall be used in promoting the advancement of meteorology and oceanography. In the event of the dissolution or winding up of the Society, all its remaining assets, after payment of liabilities, shall be distributed to one or more organizations in Canada having cognate or similar interests.

B Y - L A W S

THE CANADIAN METEOROLOGICAL AND OCEANOGRAPHIC SOCIETY

BY-LAW 1 - Membership

- a) In accordance with Article 3 of the Constitution, the membership of the Society consists of:
 - Regular Members
 - Corporate Members
 - Student Members
 - Life Members
- b) Regular membership is open to individuals.
- c) Corporate membership is open to companies and other organizations. Each Corporate Member will be entitled to receive all publications of the Society. Each Corporate Member shall nominate one person who shall act on behalf of the organization in all dealings with the Society.
- d) Student membership is open to full-time students.
- e) Life membership may be granted to members of the Society who have provided exceptional longtime service and support to the Society. A life membership is proposed by Council, and must be approved by the Annual General Meeting. Life members are not expected to pay fees and shall receive Society publications of their choice.
- f) Each member in good standing, in whatever category, shall have the right to exercise one vote.
- g) Applications for membership are submitted to the Executive or Council for approval. Council has the power to reject applications or remove members for cause.
- h) Members of the Society are normally assigned to a Centre or Chapter, provided a Centre or Chapter is located within a reasonable distance of the member's address.
- i) Any member may resign from the Society by submitting to the Society a written resignation.

BY-LAW 2 - Annual Membership and Subscription Fees

- a) The membership fee for each calendar year shall be established at the preceding Annual General Meeting.
- b) The annual membership fee is due on January 1.
- c) Any member whose annual membership fee is not received by March 31 shall cease to be a member.
- d) Membership applications received after October 1 are presumed to be for the following year, unless otherwise indicated.
- e) Annual subscription fees for Society publications are established by Council.

BY-LAW 3 - Publications

- a) The Society shall publish a Newsletter and an Annual Review to be received by all members.
- b) The Society shall also publish ATMOSPHERE-OCEAN, CLIMATOLOGICAL BULLETIN and CHINOOK on a subscription basis.
- c) The Society shall publish other publications as required by Council, such as a program of Abstracts for the Annual Congress.
- d) Membership of the Publications Management Committee shall consist of the Publications Business Manager and the Editors of the Society's journals and periodicals.
- e) Council shall establish an Editorial Board for each of the Society's journals and periodicals. The membership, terms of office, responsibilities and authorities of each Editorial Board shall be approved by Council.

BY-LAW 4 - Centres

- a) Upon receipt of a written request from at least twenty members, Council may, at its discretion, create a Centre for the reading of papers, the holding of lectures and discussions on subjects related to meteorology or oceanography and the discussion of Society business. Council shall have the power to dissolve a Centre at any time if the Centre ceases to meet its responsibilities as outlined in this By-Law.
- b) The officers of a Centre shall include, but not be limited to a Chairman, a Secretary and a Treasurer. The officers shall be members of the Society in good standing, elected annually by a simple majority vote of those members present at a Centre meeting.
- c) Notices of meetings of a Centre shall be sent to all members assigned to the Centre.
- d) By February 1 of each year, the Chairman of each Centre shall submit to the Corresponding Secretary, a written report on the Centre's activities and finances during the previous calendar year.
- e) Council shall award annual subventions to permit the Centres to carry on activities related to the Society's aim.
- f) At no time shall the total liabilities of a Centre exceed its total assets.

BY-LAW 5 - Chapters

- a) In locations where the number of members does not permit the creation of a Centre, Council may, upon receiving a written request of five members, create a Chapter for the purpose of reading papers, holding lectures or discussions on subjects of meteorological or oceanographic interest and the discussion of Society business. Council may dissolve a Chapter at any time if it fails to adhere to the responsibilities outlined in this By-Law.
- b) A Chapter shall elect a representative who shall submit to the Corresponding Secretary, by February 1 of each year, a report on the activities and finances of the Chapter during the previous fiscal year.

BY-LAW 6 - Special Interest Groups

- a) Upon the receipt of a written request from at least twenty-five members, Council may, at its discretion, create a Special Interest Group and approve terms of reference. A Special Interest Group will consist of members of the Society not necessarily co-located, who are interested in a particular area of meteorology or oceanography, and who desire to join together. Council shall have the power to dissolve a Special Interest Group at any time if the Group ceases to meet its responsibilities as outlined in this By-Law. Any member of the Society may affiliate with a Special Interest Group.
- b) Officers of the Special Interest Group shall include, but not be limited to, a Chairman, Vice-Chairman, and Secretary-Treasurer. Officers serve a maximum of three years. The officers shall be members of the Society in good standing elected by a simple majority of the respondents to a mail ballot sent out to all members of the Group. The officers of a Special Interest Group may be removed from office in accordance with By-Law 12.
- c) Special Interest Groups organize scientific meetings in their area of interest. They shall assist the Congress Program Chairman, as required, in soliciting papers in the Group's area of interest. They shall also respond to requests by Council for advice in their area of interest and shall report on their activities via the Newsletter at least once a year in addition to (d) below.
- d) By February 1 of each year, the Chairman of each Special Interest Group shall submit to the Corresponding Secretary, a written report on the Group's activities and finances during the previous calendar year.
- e) Council may, at its discretion, award a subvention to assist a Special Interest Group in carrying out activities related to the Society's aim.
- f) A Special Interest Group Chairman may request the Society to levy a Special Interest Group membership fee.
- g) At no time shall the total liabilities of a Special Interest Group exceed its total assets.

BY-LAW 7 - National Meetings

- a) The national meetings of the Society shall be as follows:
 1. Annual Congresses for discussions, lectures, or the presentation of papers on matters of meteorological and oceanographic interest.
 2. An Annual General Meeting, usually held coincident with Congress, to discuss Society business.
 3. Special General Meetings to discuss urgent Society business.
- b) Notice of the location, date and hour of the Annual General Meeting shall be given to members at least 90 days in advance. The Annual General Meeting shall be held at a place and time determined by Council.
- c) The business of the Annual General Meeting shall be:
 1. To receive and consider the reports of Council, the auditor, the ballot counters, the Committees, the Centres, the Chapters, the Editorial Boards and the Special Interest Groups.
 2. To approve the annual budget of the Society.
 3. To establish the membership fees for the next calendar year.
 4. To discuss and determine such other questions as may be proposed relating to the affairs of the Society.
 5. To install new officers for the ensuing year.
- d) Council shall have the power to call a Special General Meeting to consider and decide on any urgent Society business.
- e) Notice of Special General Meetings shall be given to members at least 30 days in advance. The notice shall state the nature of the business to be transacted.
- f) Any measure proposed to Council in writing by five or more members shall be considered, according to Council's discretion, at either a Special General Meeting or at the next Annual General Meeting.
- g) Twenty members shall form a quorum at any Annual or Special General Meeting of the Society.

BY-LAW 8 - Annual Congress

- a) The Annual CMOS Congress is normally hosted by a Centre and the location is usually rotated to different geographical areas of the country.
- b) The Congress shall be conducted in accordance with guidelines approved by Council.
- c) The location of the Annual Congress shall be approved by the Annual General Meeting at least two years in advance.
- d) Council shall appoint the Chairmen of the Local Arrangements and Scientific Program Committees. The members of the Local Arrangements Committee are appointed by the host Centre in consultation with the Committee Chairman, and the members of the Scientific Program Committee are nominated by its Chairman for appointment by Council.
- e) The Corresponding Secretary is the point of contact of Council with the Chairmen of the Local Arrangements and Scientific Program Committees.

BY-LAW 9 - Prizes and Awards

- a) Prizes and awards are given by the Society to recognize scientific achievement and promote interest in meteorology and oceanography among scientists and the public.
- b) All prizes and awards are approved by Council after receiving the report of the Prizes and Awards Committee.
- c) A list of the Society's prizes and awards and their terms of reference comprise Appendix I to these By-Laws. Changes in the prizes and awards, or their terms of reference, shall be dealt with in the same way as changes to the Constitution and By-Laws. (see Article 5 of the Constitution)
- d) The Corresponding Secretary will publish, before the end of the calendar year, in the Newsletter and in any other appropriate publication of the Society, a call for nominations for the Society's prizes and awards.

BY-LAW 10 - Election of Council

- a) The elected officers to Council are the President, the Vice-President, the Treasurer, the Corresponding Secretary, the Recording Secretary, and the Council at Large. Only members in good standing are eligible to hold office in the Society.
- b) Elected officers to Council shall serve their term from the end of the Annual General Meeting at which they were elected to the end of the following Annual General Meeting. The President and Vice-President shall not hold the same office for more than two consecutive terms. Other members of Council shall not hold the same office for more than four consecutive terms.
- c) By February 1, a Nominating Committee, appointed by Council, shall prepare a list of nominations for the elected officers of Council. There shall be at least one nomination for each office. The nominees shall acknowledge their willingness to accept office if elected. In preparing its report, the Nominating Committee shall take into consideration the scientific, regional, and linguistic diversity of the Society, and the need for appropriate representation.
- d) By March 1, the Corresponding Secretary shall send, either by inclusion in the Newsletter or by letter, to each member of the Society:
 1. A list of members of the current Council.
 2. A list of nominations made by the Nominating Committee.
 3. Notification that nominations for Council will be received in accordance with By-Law 10(e).
- e) Nominations in writing from the membership will be accepted by the Recording Secretary up to 75 days before the Annual General Meeting, provided:
 - (i) that the nominee is eligible for the office for which he is nominated,
 - (ii) that the nominee acknowledges, by signing the nomination his willingness to accept office if elected, and
 - (iii) that the nomination is signed by four members, in addition to the nominee and the member making the nomination.

- f) An election of officers to Council will be held at the Annual General meeting. If there is more than one nomination for any office, voting will be held at the Annual General Meeting.
- g) The Recording Secretary and a scrutineer appointed by Council shall count the votes at the Annual General Meeting. Winner(s) will be decided by a simple majority. In the event of a tie, a coin will be tossed.
- h) The duties of the elected officers to Council are given in Appendix II to these By-Laws.
- i) In the event of the death or resignation of an Officer of the Society, the Nominating Committee shall nominate an interim replacement for appointment by Council.

BY-LAW 11 - Appointed Officers

- a) Council shall appoint an Executive Director and a Publications Business Manager.
- b) The duties of the Executive Director and Publications Business Manager are given in Appendix II to these By-Laws.

BY-LAW 12 - Removal of Officers

Officers of the Society may be removed from office for due cause by a two-thirds majority vote of eligible members present at a duly convened meeting of the body which elected or appointed them.

BY-LAW 13 - Remuneration of Officers

- a) Officers of the Society, excepting the Executive Director and Publications Business Manager, shall not be remunerated for their services, but they may be reimbursed for expenses, incurred on behalf of the Society, and approved by the Executive.
- b) Council will from time to time determine suitable honoraria for the Executive Director and the Publications Business Manager, and regulations concerning the reimbursement for those expenses incurred on behalf of the Society and approved by the Executive.

BY-LAW 14 - Council

- a) Council is responsible for the overall direction of the Society.
- b) Council shall meet at least twice annually at the call of the President or at the request of any three members of Council.
- c) Four voting members plus the President or Vice-President shall form a quorum at any meeting of Council.
- d) Council may meet and transact business by telephone conference call or other means, when members are unable to assemble in one place.
- e) Council shall appoint members and chairmen of Committees except as specified in By-Law 16(a)), and Editors and Editorial Boards, and shall prescribe their terms of reference.
- f) Council shall ensure that proper and sufficient accounts are kept of the funds, receipts and expenditures of the Society.

- g) Council shall have the power to disburse and invest the funds of the Society in ways which it deems to be in the best interests of the Society.

- h) Councillors who hold more than one office concurrently are entitled to only one vote at Council.

BY-LAW 15 - The Executive

- a) The Executive of the Society is the executive arm of Council, reporting to Council and conducting the affairs of the Society within the limits of the powers conferred on it by Council.
- b) The Executive normally consists of members of one or more Centres or Chapters in close proximity, and it resides in one location for three or four years. The Executive meets as often as it deems necessary. An affirmative vote of a majority of the members present shall be required for the resolution of any question. In the event of a tie, the Chairman who does not normally vote, shall cast the deciding vote.
- c) Two voting members plus the President or Vice-President shall form a quorum at any Executive meeting.
- d) Between Council meetings, the Executive is responsible for ensuring that every reasonable action is taken to accomplish the aims of the Society subject to the policy decisions made by Council. Specifically the Executive has responsibility for:
 1. Execution of the day-to-day business of the Society.
 2. The finances of the Society within the limits set by the Annual General Meeting on the approval of the annual budget.
 3. Implementation of the decisions of Council as directed.
 4. Other matters specifically delegated by the Council to the Executive.

BY-LAW 16 - Committees, Editorial Boards and Working Groups

- a) The Committees appointed by the Council are: the Accreditation Committee,* The Nominating Committee, the Prizes and Awards Committee, the Education Committee for Meteorology, the Professionalism Committee, and the Scientific Committee. The chairman of the Membership Committee is appointed by Council and each Centre appoints one member. Ad hoc committees are appointed by Council, as required.
- b) The term of membership on a committee will generally not exceed three consecutive years. Exceptions may be made for a member of a committee appointed to the chair after one or more years' service on the committee. A chairman may complete a three-year term in that office.
- c) The editorial boards appointed by the Council are: Atmosphere-Ocean Editorial Board, Chinook Editorial Board, and Climatological Bulletin Editorial Board. The Editor of the CMOS Newsletter and the Editor of the Annual Review are appointed by the Council.
- d) Working Groups may be established by Council, the Executive, a Committee or an Editorial Board for a fixed period of time to complete an assigned task.

* Subject to the creation of this committee by the AGM

BY-LAW 17 - Finances

- a) The fiscal year of the Society shall coincide with the calendar year.
- b) The Treasurer shall prepare the accounts of the Society for external audit at the end of the fiscal year. The accounts, the budget and the auditor's report shall be presented at each Annual General Meeting.

BY-LAW 18 - Auditor

- a) On the recommendation of Council, the Annual General Meeting shall approve the appointment of an auditor for the current fiscal year.

APPENDIX I TO BY-LAWS

CANADIAN METEOROLOGICAL AND OCEANOGRAPHIC SOCIETY PRIZES AND AWARDS

a) The President's Prize

The President's Prize may be awarded each year to a member or members of the Society for a recent paper of special merit in the fields of meteorology or oceanography. The paper must have been accepted for publication in ATMOSPHERE-OCEAN, the CLIMATOLOGICAL BULLETIN or a refereed journal.

b) The J.P. Tully Medal in Oceanography

The J.P. Tully Medal in Oceanography may be awarded each year to a person whose scientific contributions have had a significant impact on Canadian oceanography.

c) The Dr. Andrew Thomson Prize in Applied Meteorology

The Dr. Andrew Thomson Prize in Applied Meteorology may be awarded each year to a member or members of the Society for an outstanding contribution to the application of meteorology in Canada.

d) The Prize in Applied Oceanography

The Prize in Applied Oceanography may be awarded each year to a member or members of the Society for an outstanding contribution to the application of oceanography in Canada.

e) The Rube Hornstein Prize in Operational Meteorology

The Rube Hornstein Prize in Operational Meteorology may be awarded each year 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 has already been incorporated into the day-to-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.

f) The Graduate Student Prizes

One or more graduate student prizes may be awarded each year for contributions of special merit by graduate students registered at a Canadian university or by Canadian graduate students registered at a foreign university.

g) Citations

One or more Citations may be awarded each year to an individual, group or organization which has, in the previous year, made some outstanding contribution towards promoting public awareness of meteorology or oceanography in Canada.

h) Other Awards

The Society may create other awards to recognize scientific achievement and promote interest in meteorology or oceanography.

APPENDIX II TO BY-LAWS

DUTIES OF ELECTED AND APPOINTED OFFICERS OF THE SOCIETY

The duties of the Executive members shall be as follows:

a) The President

1. The President is responsible for the overall management of the Society's affairs and may delegate responsibility and authority for specific duties in accordance with the needs of the Society.
2. The President, or his delegate, shall represent or speak officially for the Society on all occasions of major import where a representative of the Society is required.
3. The President shall take the chair at meetings of the Executive and Council and at all General Meetings of the Society.
4. The President shall not vote on any question brought before any meeting when he is in the chair, except that, should a deciding vote be necessary, he shall cast that vote.

b) The Vice-President

1. The Vice-President shall assume all of the duties of the President in the absence of the latter.
2. The Vice-President will normally be nominated as a candidate for President in the succeeding year.
3. The Vice-President shall assume particular responsibility for the direction of the Centres, Chapters and Special Interest Groups.

c) The Treasurer

1. The Treasurer shall, on behalf of the Society, open and maintain such bank accounts as may be necessary for the investment and day-to-day handling of Society funds.
2. The Treasurer shall maintain books of accounts of all financial transactions of the Society in a manner agreeable to the Auditor and approved by Council.
3. The Treasurer shall have the authority to disburse the funds of the Society up to a limit for single payments specified by Council from time to time. Disbursements exceeding this limit shall require a decision of the Executive duly recorded at a meeting of the Executive.

4. The Treasurer shall be responsible for the collection of all accounts due to the Society.
5. The Treasurer shall prepare the accounts of the Society for audit, and shall make available to the auditor such books and documents relating to the Society as the latter may require in accordance with By-Law 17(b).
6. The Treasurer shall prepare the annual budget for consideration by Council.
7. The Treasurer shall prepare the necessary financial statements and Revenue Canada information returns for the Society.
8. The Treasurer shall recommend an auditor to Council.

d) The Recording Secretary

1. The Recording Secretary shall record the action items and maintain the minutes of the proceedings of Council and Executive meetings, and of all General Meetings of the Society.
2. The Recording Secretary shall be responsible for the preparation and distribution of agendas for meetings and for the distribution of relevant minutes of preceding meetings at least one week in advance of Executive and Council meetings.
3. The Recording Secretary shall submit the agenda and minutes of general meetings at the call of the Editor of the Annual Review.
4. The Recording Secretary shall carry out the duties of the Corresponding Secretary in the absence of the latter.
5. The Recording Secretary shall be responsible for Council elections in accordance with By-Laws 10(f) and 10(g).

e) The Corresponding Secretary

1. The Corresponding Secretary shall be responsible for the general correspondence of the Society and shall arrange for the maintenance of an up-to-date membership list and for the notification of members concerning upcoming deadlines, in accordance with By-Laws 4(d), 6(d), 7(b), 7(e) and 10(d).
2. The Corresponding Secretary shall be the point of contact of the Executive and Council with Congress organizers in accordance with By-Law 8(e).
3. The Corresponding Secretary shall carry out the duties of the Recording Secretary in the absence of the latter.

The duties of the Appointed Officers shall be as follows:

a) The Executive Director

1. The Executive Director shall conduct such business and correspondence of the Society as may be directed by Council or by the President.
2. The Executive Director shall be responsible for the proper functioning of the CMOS headquarters office.
3. The Executive Director shall serve as an ex-officio non-voting member of all Committees established by Council.

4. The Executive Director shall prepare and keep current the files and documents of the Society as established by recorded Council action.
5. The Executive Director shall have the custody of the Corporate Seal of the Society and, when required, shall certify documents issued by the Society.

b) The Publications Business Manager

1. The Publications Business Manager shall manage all business aspects of the Society's Publications.
2. The Publications Business Manager shall chair the Publications Management Committee.

INTRODUCTION TO GUIDELINES FOR ACCREDITATION OF CONSULTANTS

Background

Requests have been made to CMOS to establish an accreditation system for consultants. The request originated from Canadian consultants who did not want to have to apply to foreign societies for accreditation and from consulting firms who are bidding on foreign contracts and would like a form of recognition by a society from their country and from the Atmospheric Environment Service which would like to encourage a more active private sector in meteorology. Canadian companies have at times found themselves at a disadvantage when competing with firms from other countries which provided a form of recognition or accreditation. References have been made to the American Meteorological Society's certification of meteorologists.

With the above in mind, the CMOS Executive requested the Committee on Professionalism to develop a set of guidelines for accreditation of consultants. An initial draft of the guidelines was distributed to about fifteen consultants in the fields of meteorology and oceanography. Most of the feedback was favourable to the proposed guidelines.

At the 1984 CMOS Congress in Halifax, the CMOS Committee on Professionalism met to discuss the draft guidelines. Based on the discussions during the meeting, the draft was revised and subsequently submitted to the CMOS Council which approved the draft and recommended that some changes be made to it before distribution to CMOS Centres for review. These suggested changes were incorporated into a second draft. A further meeting was held at the 1985 CMOS Congress in Montreal and a third draft was developed. This draft was reviewed by the Committee on Professionalism and a fourth draft was submitted to CMOS Council in October 1985 for approval. Additional revisions by Council resulted in a fifth draft. The latest draft, number six, reflects further work by the Professionalism Committee early in 1986.

Approach

The purpose of accreditation is to provide recognition to Consultants that they are a "CMOS Accredited Consultant" and as such have been found to meet a minimum set of requirements outlined in the guidelines. The requirements address three areas:

- (i) adequate professional training (appropriate undergraduate/post-graduate degree);
- (ii) specialized on-the-job training;
- (iii) appropriate experience at the working level.

These requirements will ensure that a "CMOS Accredited Consultant" possesses a set of objective qualifications. They are not meant to assess the competency or quality of work of the applicant. Normally, an assessment of the competence or quality of work of a consultant would be expected to be made by a potential client by evaluating characteristics such as the quality of the proposal, past performance, management ability and experience in the area considered.

In addition, considering the broad range of specialties in the fields of meteorology and oceanography, the accreditation does not specifically qualify a consultant to undertake any specific work in these general fields.

ACCREDITATION OF CONSULTANTS

The CMOS Guidelines for Accreditation of Consultants which appear in this issue are the culmination of several years of work by the Professionalism Committee and by the Executive. These have been reviewed by Council and their implementation at the 1986 Annual General Meeting is strongly recommended to the membership. A growing need for Accreditation has been expressed by representatives of industry, who have hitherto found themselves at a disadvantage in bidding for international contracts. Representatives of government have also expressed the need for establishment of a list of Accredited Consultants meeting objective standards, since a growing number of meteorological and oceanographic studies from the private sector are entering into government regulatory and decision-making processes.

The Professionalism Committee has prepared a plan which will provide, on a voluntary basis, Accreditation which establishes that an individual consultant meets established standards of education and experience. The plan is simple enough that it will not place an undue burden on the resources of the Society, nor on the finances of the applicants. There is a diversity of opinion among members about how and if an Accreditation plan should be established, and there will certainly have to be adjustments made over the years to ensure that CMOS Accreditation continues to meet the needs of the meteorological and oceanographic professions. The need for Accreditation is real and immediate, and no other organization has the expertise to effectively and credibly offer such a plan. If approved by the membership, the Society will immediately be in a position to receive applications to be reviewed by an Accreditation Committee.

The Guidelines for Accreditation are being translated into French, and the French version will be available from the Executive Director (Mr. Uri Schwarz, CMOS, 151 Slater St., Ottawa, Ontario, K1P 5H3) and at the Annual General Meeting.

Stuart D. Smith
President

IMPLEMENTATION OF THE ACCREDITATION SYSTEM

Upon concurrence of CMOS members, the proposed accreditation system will be started. It should be noted by CMOS members that those working in the fields of meteorology and oceanography will not be required by CMOS to obtain accreditation in order to undertake consultation in these fields. Not having accreditation does not imply that a person cannot work as a consultant in meteorology and/or oceanography. The accreditation merely informs the public and potential clients that a person has met the minimum set of CMOS requirements stated in the attached Guidelines.

Following are the steps proposed to implement a CMOS accreditation system:

1. Approval of draft six of the Guidelines and this implementation mechanism by CMOS Council in February 1986.
2. Guidelines and implementation mechanisms will be published in a CMOS Newsletter following the February Council meeting accompanied by notice that they will be discussed and voted upon at the 1986 Annual General Meeting.
3. The Professionalism Committee, upon approval of the Guidelines and implementation mechanism, would recommend up to five CMOS members to sit on an Accreditation Committee, referred to in the attached Guidelines. The Professionalism Committee would meet during the Regina Congress, on the day following the Annual General meeting, to undertake as a main business item, selection of nominees to the Accreditation Committee. The persons selected would be CMOS members representing the disciplines of meteorology and oceanography and would meet the criteria for accreditation stated in the Guidelines. Once approved by Council, these first Accreditation Committee members will be eligible for accreditation status.
4. The Accreditation Committee, once constituted, would proceed to receive and consider applications for accreditation in accordance with the approved Guidelines. The Accreditation Committee's administrative arrangements would be co-ordinated through the CMOS Council and CMOS Executive.
5. The Accreditation Committee would, in addition, nominate a chairman for approval by Council.

CMOS GUIDELINES FOR ACCREDITATION OF CONSULTANTS

General

1. The application of meteorological and oceanographic knowledge in the private sector rests largely with consultants who contract with clients to provide expertise which the client does not possess. The accreditation of consultants by a peer review committee has been established to ensure that a basic level of qualifications has been achieved and recognized in meteorology or in oceanography. It does not assess or guarantee the quality of work which could be performed by any particular accredited consultant.
2. Accreditation will be on a calendar-year basis. An accreditation document will be issued upon approval by the Accreditation Committee, and the applicant's name will be published in a CMOS Directory of Consultants or at least once per year in the CMOS Newsletter. Accreditation will be valid from the date of approval for the current calendar year: if approved after October 1 will also be valid for the following calendar year. The accreditation may be renewed annually thereafter provided a consultant continues to meet the accreditation criteria.

3. If the application is rejected by the Committee, the applicant has thirty days to appeal the decision to the Committee. If the appeal is rejected, the applicant may seek an evaluation from the CMOS Council who will have the final authority.
4. The accreditation may be withdrawn if in the opinion of the CMOS Accreditation Committee, a consultant has provided false information in the application.

Criteria

5. The following are the set of requirements for accreditation:
 - (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;
 - (i) post-graduate degree from a recognized university in the natural or applied sciences or mathematics, specializing in one or more branches of meteorology, oceanography or a related field; or
 - (ii) three years of on-the-job meteorological, oceanographic or related 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 fields of specialization included in this document.
6. Exceptions to the above criteria will be considered by the Accreditation Committee in unusual circumstances.

Application Form

7. The purpose of the attached application form is to allow the Accreditation Committee to determine whether the minimum requirements have been met. An applicant may be required to attend an interview for further clarification of qualifications. The applicant will normally be notified whether or not the requirements have been met within three months of receipt of the application form.
8. Certified copies of all relevant degrees and diplomas should accompany the application. In addition, a letter of reference is normally required from the supervisor of the advanced degree or of the job-related training, pointing out the areas of specialization.
9. The section on related work experience should provide information on the technical nature of the assignments, the nature of involvement of the applicant, the degree of personal responsibility for project decision-making, and the complexity and diversity of the work.
10. The applicant must submit written substantiation of recent professional work in the fields of meteorology and oceanography. For example, a maximum of five of the applicant's most recently published papers, project reports, or other written documentation relevant to his or her field of practice should be listed. A copy of one of the above should be included with the application.

APPLICATION FOR CERTIFICATION
AS A CMOS ACCREDITED CONSULTANT

11. It is recognized that in certain situations, some of the work undertaken may be considered confidential. In such cases, applicants are encouraged to refer to non-confidential work. However, if only confidential work provides examples of the type of work done, the Accreditation Committee may consult the appropriate clients involved. Should an applicant provide confidential material with the application, the original will be returned and all copies will be destroyed following the Committee's review.
12. Memberships in appropriate professional or technical associations or societies should be given and participation on committees relevant to the specialization should be noted. Special awards, patents or other recognition in meteorology or oceanography should also be included.
13. Two references from individuals for whom the applicant has provided satisfactory meteorological or oceanographic services within the past five years should be provided.
14. The applicant may list a maximum of five areas of specialization for which he or she will be offering consulting services. The areas of specialization are listed following the Application Form.

Fees*

15. A fee of \$150.00 in the form of a cheque, made out to the Canadian Meteorological and Oceanographic Society, should be included with the application form.
16. A refund of \$75.00 will be made if the application is unsuccessful.
17. Renewal notification will be sent to accredited consultants at the end of each calendar year.
18. The annual renewal fee shall be \$30.00 for members and \$50.00 for non-members.
19. If an individual fails to renew accreditation during the calendar year following the year of expiration, complete reapplication for accreditation will be necessary.

* The fee structure will be determined by Council and will be reviewed from time-to-time.

1. Identification

Name: _____ Position Title: _____

Company Name: _____

Office Address: _____

(postal code)

Office Telephone: _____

Home Address: _____

(postal code)

Home Telephone: _____

2. Education

a) University - Location - Degree - Year Completed - Specialization

1)

2)

3)

4)

b) Undergraduate and graduate thesis titles:

Supervisor:

1)

2)

3)

4)

c) Other relevant training courses:

1)

2)

3)

4)

3. Relevant Work Experience During the Last Five Years
(employer, address, phone number, duration, nature of work)

1) Present Employer:

2) Previous Employer:

4. Scientific and Technical or Other Professional Output (List up to five journal publications and technical reports and dates published)

1)

2)

3)

4)

5)

(Note: A brief description should be provided on each of the items noted above.)

5. Professional Recognitions

1) Memberships:

2) Licences:

3) Patents:

4) Awards:

5) Others:

(for more than two employers in the past five years, please add information on a separate page)

6. References

(provide name, position, address, phone number of two references who may be contacted by the Committee)

1)

2)

7. Areas of Specialization (see list in Part IV)

1)

2)

3)

4)

5)

8. Declaration

I certify that the statements made by me in the application and attachments are true and complete.

I hereby apply to become a "CMOS Accredited Consultant".

Signature: _____ Date: _____

AREAS OF SPECIALIZATION*

1. Meteorology

- 1.1 Agrometeorology
- 1.2 Applied
- 1.3 Aviation
- 1.4 Boundary Layer
- 1.5 Cloud Physics and/or Chemistry
- 1.6 Electrical Phenomena
- 1.7 Forensic
- 1.8 Forest
- 1.9 General
- 1.10 Hydrometeorology
- 1.11 Ice Forecasting
- 1.12 Instrumentation
- 1.13 Long Range Transport of Air Pollutants (Acid Rain)
- 1.14 Marine
- 1.15 Numerical
- 1.16 Operational
- 1.17 Precipitation Physics and/or Chemistry
- 1.18 Radar
- 1.19 Remote Sensing
- 1.20 Research and Development
- 1.21 Solar Energy
- 1.22 Storms (Tropical, Extra-tropical, Blizzards, Dust, Convective, Tornadoes)
- 1.23 Synoptic
- 1.24 Training
- 1.25 Weather Broadcasting (Radio, Television)
- 1.26 Wind Energy

2. Climatology

- 2.1 Applied
- 2.2 Climate Change
- 2.3 Data Management
- 2.4 General
- 2.5 Ice
- 2.6 Marine
- 2.7 Research

3. Oceanography

- | | |
|---|---|
| 3.1 Acoustic | 3.10 Physical |
| 3.2 Air-Sea Interaction | 3.11 Pollution |
| 3.3 Biological | 3.12 Remote Sensing |
| 3.4 Chemical | 3.13 Research and Development |
| 3.5 Circulation | 3.14 Sea Ice or Icebergs |
| 3.6 Coastal | 3.15 Synoptic and Descriptive |
| 3.7 Fluid Dynamics | 3.16 Theoretical |
| 3.8 Geological Processes | 3.17 Tides and Surges |
| (Beaches, Turbidity, Sedimentation, etc.) | 3.18 Training |
| 3.9 Instrumentation | 3.19 Wave Energy (Internal and Surface) |
| | 3.20 Waves |

* List will be expanded as required.



20th ANNUAL CMOS CONGRESS

June 3 to 6, 1986

UNIVERSITY OF REGINA
Regina, Saskatchewan

The Saskatchewan Centre of the Canadian Meteorological and Oceanographic Society and the Associate Committee on Hydrology of the National Research Council will host the Twentieth Annual CMOS Congress/Canadian Hydrology Symposium: 86 from June 3 to 6, 1986 at the University of Regina.

This joint conference recognizes the growing concern, both in Canada and around the world, over society's susceptibility to drought as a natural phenomenon. Although drought has affected civilizations throughout recorded history, there is growing evidence that man's activities could cause a climate change resulting in a possible increase in the frequency and severity of drought in some regions of the world.

This conference will concentrate on the meteorology, climatology and hydrology of droughts with emphasis on the physical processes and linkages between them.

SCIENTIFIC PROGRAM

Invited speakers to both the CMOS Congress and CHS: 86 will address the theme, Drought: The Impending Crisis? The concurrent sessions of CHS: 86 will deal with climatology, surface waters, ground water and the hydrology of droughts. The CMOS program will complement CHS: 86 with sessions on oceanographic circulations and global circulation of atmosphere in relation to drought.

Other regular CMOS sessions will consider a variety of topics in meteorology and oceanography.

EXHIBITS

Concurrently with the joint conference, an exhibition will be held. As the number of booths is limited, exhibitors are required to contact the exhibits convenors, Jeff Whiting (306) 933-5423 or Ross Herrington (306) 780-5337 in order to arrange for reservations as soon as possible. The exhibit fee is \$500.00 Can.

A centrally located industrial exhibition area will feature the latest technological advances of interest to the hydrological, meteorological and oceanographic community. On February 1, 1986, the registered exhibits included:

Campbell Scientific Canada Corp.
Bristol Aerospace Ltd.
Aanderaa Instruments Ltd.
GENEC Inc.
Belfort Instrument Co.

REGISTRATION

Early registration should be made before May 1, 1985. The early registration fee is \$100.00; after May 1 registration fees will be \$115.00. Senior and student fees are \$25.00.

Use the accompanying registration form in this newsletter.

NOTE: No credit cards please.

20^e CONGRES ANNUEL DE LA SCMO
3 au 6 juin 1986

L'UNIVERSITE DE REGINA
Regina, Saskatchewan

LA SECHERESSE: LA CRISE EST-ELLE IMMINENTE?

Le Centre de la Saskatchewan de la Société canadienne de Météorologie et d'Océanographie et le Comité associé d'Hydrologie du Conseil national de Recherches seront les hôtes du Vingtième congrès annuel de la SCMO et du Symposium canadien d'Hydrologie: 86, qui aura lieu du 3 au 6 juin 1986, à l'Université de Regina.

La conférence mixte a un très grand intérêt ici au Canada et à travers le monde entier envers les conditions et les problèmes de sécheresse et reconnaît la susceptibilité concernant la sécheresse qui est un phénomène naturel. Tout à travers l'histoire, nous avons vu plusieurs civilisations qui ont été affectées par une sécheresse quelconque, et nous réalisons que les activités humaines peuvent causer des changements climatiques et ainsi accroître la fréquence et la sévérité de sécheresses dans certaines régions à travers le monde.

Cette conférence sera dévouée à la météorologie, la climatologie et aux phénomènes hydrologiques qui mettent en évidence les processus physiques ainsi que les rapports qui existent entre eux.

PROGRAMME SCIENTIFIQUE

Les conférenciers invités au congrès mixte du SCMO et du CHS:86 adresseront le thème "La Sécheresse: La Crise est-elle imminente? Les sessions du CHS: 86 qui suivront auront comme point saillant des théories concernant la climatologie, les eaux de ruissellement, les eaux souterraines, ainsi que l'hydrologie des états de sécheresse. Le programme du SCMO aura en surplus des sessions sur les circulations océanographiques et atmosphériques ainsi que sur la corrélation qui existe entre ceux-ci et la sécheresse.

De nombreux sujets en météorologie et en océanographie sont inclus dans les autres sessions régulières du SCMO.

EXPOSITION COMMERCIALE

Pendant la conférence mixte, il y aura une exposition commerciale. Comme le nombre d'expositions est limité, nous demandons aux intéressés de bien vouloir communiquer avec un des responsables, Jeff Whiting (306) 933-5423 ou Ross Herrington (306) 780-5337, afin de réserver le plus tôt possible. Le coût pour présenter une exposition est de 500 \$ canadien chacun.

Une exposition industrielle centralisée mettra en valeur les dernières réalisations techniques, réalisations qui ne manqueront pas d'intéresser la communauté hydrologique, météorologique et océanographique.

Présentement, nous avons recruté les expositions suivantes:

Campbell Scientific Canada Corp.
Bristol Aerospace Ltd.
Aanderaa Instruments Ltd.
GENEC Inc.
Belfort Instrument Co.

SOCIAL

A wine and cheese reception will be held on the evening of June 3 along with registration.

An entertaining social program and an interesting spouse's program will complement the technical activities. The conference banquet will be held on June 5 at the Sheraton Centre. The banquet speaker will be novelist, playwright and raconteur W.O. Mitchell. Mr. Mitchell is currently a writer-in-residence at the University of Windsor. Having grown up in Saskatchewan during the drought of the 1930's, the toll of droughts in human terms is a living experience to Mr. Mitchell. One of his best known works of pen is the novel *Who Has Seen the Wind*.

The cost of the banquet is covered in the registration fees, except for senior and student registrants. Additional banquet tickets are available at a cost of \$30.00.

A luncheon at the university on June 4 is partially sponsored by the city of Regina. Tickets are not included in the registration.

The Hydrology Special Interest Group will hold a dinner meeting on June 4 from 5:30 to 7:30 p.m. at the university. Attendance is limited to 50.

At registration time, information will be made available for those participants who want to enjoy the historical and cultural locations of Regina and area.

TRANSPORTATION

Air Canada is participating in the conference as official carrier. To make airline reservations, call Air Canada's Convention Central at 1-800-361-7585 and identify yourself and the conference. Up to 20% off the regular economy fare can be realized and still travel in Connaisseur class. Certain advance purchase conditions apply. Substantial savings on car rentals can also be realized.

AIR CANADA CONVENTION CENTRAL



Delegates landing at the Regina Airport will be able to take taxis or hotel limousines for about \$7.00 to any of the hotel or university destinations.

There is convenient city transit bus service from hotel locations to the University of Regina. Bus schedules will be provided upon receipt of registration.

ACCOMMODATION

NOTE: There are several other conferences taking place in Regina during the week of June 1 to 6, 1986. Register early to avoid difficulties or disappointment.

Accommodations have been reserved in a number of Regina locations:

INSCRIPTION

Il en coûtera 100 \$ aux participants qui s'inscriront au congrès avant le 1er mai 1986 et 115 \$ après cette date. Les personnes du troisième âge et les étudiants devront déboursier 25 \$.

Pour vous inscrire, veuillez utiliser le formulaire dans cette annonce.

A NOTER: Les cartes de crédit ne seront pas acceptées.

PROGRAMME SOCIAL

Un "vins et fromages" aura lieu dans la soirée du 3 juin en même temps que l'inscription.

Un programme de divertissement social et un programme d'activités intéressantes, mis sur pied à l'intention des conjointes des congressistes viendront compléter les activités techniques. Le banquet aura lieu le 5 juin au Centre Sheraton. Le conférencier au banquet sera monsieur W.O. Mitchell, romancier, dramaturge et raconteur. Monsieur Mitchell est auteur résidant de l'Université de Windsor. Ayant grandi en Saskatchewan durant la sécheresse des années 1930, monsieur Mitchell connaît bien les conséquences des sécheresses sur le plan humain. L'une de ses œuvres les mieux connues est le roman intitulé: *Who Has Seen the Wind*.

Le coût du banquet est compris dans les frais d'inscription sauf pour les personnes du troisième âge et les étudiants. Les participants pourront se procurer des billets additionnels pour le banquet pour la somme de 30 \$.

Le 4 juin, un casse-croûte à l'Université de Regina sera partiellement subventionné par la ville de Regina. Les billets pour ce buffet ne sont PAS inclus au coût d'inscription.

Le Groupe d'Intérêt spécial de l'Hydrologie vous invite à un dîner/réunion le 4 juin de 1730 à 1930 à l'Université de Regina. 50 couverts seulement.

Lors de l'inscription, des renseignements seront mis à la disposition des participants qui aimeraient visiter les lieux à valeur historique et culturelle de Regina et des environs.

TRANSPORT

Air Canada participe au Symposium en qualité de transporteur aérien officiel de l'événement. Pour réservations, veuillez téléphoner au central téléphonique des congrès d'Air Canada en composant le 1-800-361-7585, et veuillez vous identifier ainsi que le nom de la conférence à laquelle vous participerez. Vous pourrez économiser jusqu'à 20% du prix régulier pour la classe économique et bénéficier du service "Connaisseur". Certaines conditions d'achat à l'avance sont applicables. Vous pourrez aussi réaliser des économies importantes pour la location de voitures.

CENTRALE DE CONGRÈS AIR CANADA



Conference Location

University of Regina Residences, College West or Luther College, June 3-6, 1986, at a cost of \$24.00 single or \$17.00 per person double occupancy (plus, once only \$1.00 administration fee). Deposit of one night's accommodation is required (refundable only before May 1, 1986); registration before May 1, 1986.

To register at university residences, please contact:

Dr. A. Paul
Dept. of Geography
University of Regina
Regina, Saskatchewan
S4S 0A2
(306) 584-4223

Downtown Locations

Sheraton Centre
1818 Victoria Avenue
Regina, Saskatchewan
S4P 0R1
(306) 569-1666

Dates: June 1-6, 1986

Cost: \$59.00 single occupancy

Registration Deadline: May 1, 1986

Westwater Inn
1717 Victoria Avenue
Regina, Saskatchewan
S4P 0P9
(306) 757-0663

Dates: June 1-6, 1986

Cost: \$45.75 single or double occupancy

Registration Deadline: May 1, 1986

South Albert Street Locations

Landmark Inn
4150 Albert Street
Regina, Saskatchewan
S4S 3R8
(306) 586-5363

Free limousine from airport available.

Dates: June 2-6, 1986

Cost: \$47.00 single or

\$26.00 per person double occupancy

Registration Deadline: May 1, 1986

Sandman Inn
4025 Albert Street
Regina, Saskatchewan
S4S 3R6
(306) 586-2663

Dates: June 2-6, 1986

Cost: \$39.00 single occupancy, hotel section

\$35.00 single occupancy, motel section

Registration Deadline: April 1, 1986

IMPORTANT: Hotel reservations must be made directly with the hotels. Identify yourself as a CMOS Congress participant.

CONFERENCE SCHEDULE

MONDAY, June 2

ACH Meetings

TUESDAY, June 3

CMOS Committees

CMOS Special Interest Groups

CMOS Council

ACH Meetings

1930 - 2200 Registration and Reception

Les délégués arrivant à l'aéroport de Regina pourront, moyennant environ 7 \$, profiter du service de taxis ou de limousines d'hôtel pour se rendre à n'importe quel hôtel ou à l'Université.

Pour ceux qui désirent prendre l'autobus de leur hôtel à l'Université de Regina, ceci peut se faire très facilement. Veuillez demander pour un horraire d'autobus lorsque vous aurez reçu votre confirmation.

HEBERGEMENT

NOTE: Au cours du premier au 6 juin 1986, il y a plusieurs autres conférences qui auront lieu à Regina. Veuillez donc vous inscrire le plus tôt possible afin d'éviter des difficultés ou d'être désappointé.

Des chambres ont été réservées à plusieurs endroits à Regina:

Résidences de l'Université de Regina (lieu de la conférence): College West ou Luther College; du 3 au 6 juin 1986: 24 \$ pour une chambre simple ou 17 \$ par personne pour une chambre double (en plus d,1 \$ pour frais d'inscription qui sera chargé une fois seulement). Les réservations doivent être faites avant le 1er mai 1986. Un dépôt du prix d'une nuit de réservation de la chambre d'hôtel est requis (ce dépôt est remboursable seulement avant le premier mai 1986).

Pour réserver une chambre à la résidence de l'Université, veuillez contacter:

Le Dr. A. Paul
Dépt. de Géographie
Université de Regina
Regina, Saskatchewan
S4S 0A2
(306) 584-4223

Pour réservations au centre ville, veuillez contacter les hôtels suivants:

Centre Sheraton
1818, avenue Victoria
Regina, Saskatchewan
S4P 0R1
(306) 569-1666

Dates: du 1er au 6 juin 1986

Coût: 59,00\$ simple

Date limite: le 1er mai 1986

Westwater Inn
1717, avenue Victoria
Regina, Saskatchewan
S4P 0P9
(306) 757-0663

Dates: du 1er au 6 juin 1986

Coût: 45.75\$ simple ou double

Date limite: le 1er mai 1986

Pour réservations aux hôtels situés au sud de la rue Albert:

Landmark Inn
4150, rue Albert
Regina, Saskatchewan
S4S 3R8
(306) 586-5363

Dates: du 2 au 6 juin 1986

Coût: 47.00\$ simple

26.00\$ par personne pour chambre double

Date limite: le 1er mai 1986

Le Landmark Inn offre un service de limousine de l'aéroport.

WEDNESDAY, June 4

0800 - 0900 Registration
0900 - 0920 Welcome
0920 - 1000 Joint Plenary Session - Climatology of Drought
1000 - 1030 Coffee
1030 - 1200 Concurrent Plenary Sessions
1200 - 1330 Luncheon
1330 - 1500 Concurrent Sessions
1500 - 1530 Coffee
1530 - 1700 Concurrent Sessions
1730 - 1930 HYSIG Dinner Meeting

1930 - 2230 CMOS Annual General Meeting

THURSDAY, June 5

0900 - 1000 Concurrent Sessions
1000 - 1030 Coffee
1030 - 1200 Concurrent Sessions
1200 - 1300 Lunch
1300 - 1500 Concurrent Sessions
1500 - 1530 Coffee
1530 - 1700 Concurrent Sessions
1900 - Banquet - Sheraton Centre

FRIDAY, June 6

0900 - 1000 Concurrent Sessions
1000 - 1030 Coffee
1030 - 1200 CHS: 86 Plenary Wrap-Up
1030 - 1200 CMOS Concurrent Sessions

*NOTE: The CHS: 86 program was set at the time of writing but the CMOS program has not been finalized. Times shown for CMOS sessions may be subject to change and a final schedule will appear in the CMOS Volume "Program and Abstracts".

Invited Speakers

P. Rhines, University of Washington
M. Schlesinger, Oregon State University
G. McKay, Atmospheric Environment Service (retired)
B. Godwin, Prairie Provinces Water Board
R. Farvolden, University of Waterloo

LOCAL ARRANGEMENTS COMMITTEE

COMITE ORGANISATEUR

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CMOS Atmospheric Environment Service
Co-président: Regina
SCMO (306) 780-5739

Co-Chairman: D.L. MacLeod
CHS:86 Saskatchewan Water Corporation
Co-président: Moose Jaw
SCH: 86 (306) 694-3950

Secretary A.B. Banga
Publicity Convenor: Saskatchewan Water Corporation
Responsable: Moose Jaw
secrétaire/publicité: (306) 694-3959

Treasurer and K.H. Jones
Registration Convenor: Atmospheric Environment Service
Trésorier: Regina
Responsable inscription: (306) 780-6413

Facilities Convenor: Dr. A.H. Paul
Dept. of Geogrpahy
Responsable: University of Regina
location des lieux: (306) 584-4223

Social Activities R.A. Halliday
Convenor: Inland Waters Directorate
Environment Canada
Responsable: Regina
activités sociales: (306) 780-5319

Sandman Inn
4025, rue Albert
Regina, Saskatchewan
S4S 3R6
(306) 586-2663

Dates: du 2 au 6 juin 1986
Coût: 39.00\$ simple (Hôtel)
35.00\$ simple (Motel)
Date limite: le 1er avril 1986

NOTE IMPORTANTE: Les réservations d'hôtel, motel doivent être faites directement avec l'hôtel, motel concerné. Veuillez vous identifier comme participant au congrès SCMO/CHS:86.

ORDRE DU JOUR

LUNDI, le 2 juin

Réunions du CAH

MARDI, le 3 juin

Comités du SCMO
Groupes d'intérêts spéciaux
Le Conseil du SCMO
Réunions du CAH

1930 - 2200 Inscription et réception

MERCREDI, le 4 juin

0800 - 0900 Inscription
0900 - 0920 Mot de bienvenue
0920 - 1000 Sessions plénières mixtes -
La climatologie de la sécheresse
1000 - 1030 Pause café
1030 - 1200 Sessions plénières concurrentes
1200 - 1330 Casse-croûte
1300 - 1500 Sessions concurrentes
1500 - 1530 Pause café
1530 - 1700 Sessions concurrentes
1730 - 1930 Diner et réunion pour le SCMO, Groupe d'Intérêt
spécial sur l'Hydrologie (GISH)
1930 - 2230 Réunion annuelle générale du SCMO

JEUDI, le 5 juin

0900 - 1000 Sessions concurrentes
1000 - 1030 Pause café
1030 - 1200 Sessions concurrentes
1200 - 1300 Déjeuner
1300 - 1500 Sessions concurrentes
1500 - 1530 Pause café
1530 - 1700 Sessions concurrentes
1900 - Banquet - au Centre Sheraton

VENDREDI, le 6 juin

0900 - 1000 Sessions concurrentes
1000 - 1030 Pause café
1030 - 1200 Session plénière finale du SCH: 86
1030 - 1200 Sessions concurrentes du SCMO

*A NOTER: Le programme du SCH: 86 a été approuvé mais le programme du SCMO n'est pas encore terminé. Les heures mentionnées pour les sessions du SCMO vont peut-être changer. Un schedule final sera annoncé plus tard dans le volume de "Programme et Résumés" du SCMO.

CONFERENCIERS INVITES

P. Rhines, Université de Washington
M. Schlesinger, Oregon State University
G. McKay, Service de l'Environnement atmosphérique (retiré)
B. Godwin, Prairie Provinces Water Board
R. Farvolden, Université de Waterloo

Exhibits Co-convenors: J.M. Whiting
Saskatchewan Research Council
Saskatoon
Responsables expositions: (306) 933-5423

R. Herrington
Inland Waters Directorate
Environment Canada
Regina
(306) 780-5337

Program Committee: Dr. W. Nicholaichuk
Liaison: National Hydrology Research
Responsable: Institute
Liaison avec le Comité du: Saskatoon
Programme scientifique: (306) 975-5510

SCIENTIFIC PROGRAM COMMITTEE
COMITE DU PROGRAMME SCIENTIFIQUE

Co-Chairman: Dr. G.A. McBean
CMOS: Institute of Ocean Sciences
Co-président: Sydney, B.C.
SCMO: (604) 656-8448

Co-Chairman: Prof. J. Wigham
CHS:86: Civil Engineering Department
Co-président: University of Saskatchewan
SCH: 86: Saskatoon
(306) 966-5336

THIRD INTERNATIONAL WORKSHOP
ON
ATMOSPHERIC ICING OF STRUCTURES

The Third International Workshop of Atmospheric Icing of Structures will be held in Vancouver, B.C. from May 6-8, 1986. The registration cutoff date was Dec. 31, 1985. Late registration will be accepted but you will have to make your own accommodation arrangements. Persons who register late are welcome to attend the formal functions in the Sheraton Villa Hotel as well as the Workshop itself which will be held in the Head Office of the B.C. Telephone Company at 3777 Kingsway, Burnaby. Registration fee is \$250.00 which includes; bus transportation, reception, breakfasts, lunches, one formal dinner, and a copy of the proceedings when they are published.

The objectives of the Third Workshop are as follows:

- Confirm and expand international cooperation.
- Review recent progress (Research and Experience).
- Define goals for future research.
- List tasks to be done so participants can focus attention on those tasks most compatible with their interests and area of expertise.

The Workshop will involve more than 50 papers which will be divided into 6 sessions with the following topics:

1. METEOROLOGY
2. MODELLING
3. PHYSICS OF ICING
4. ICING DATA
5. AERODYNAMICS OF ICE-COVERED STRUCTURES
6. PRACTICAL APPLICATIONS

For further information you should contact:
Mr. D.J. Armstrong
Workshop Coordinator
BC Hydro
970 Burrard Street
Vancouver, B.C.
V6Z 1Y3

PHONE 1-604-663-2938
TELEX 04-54456

NOTICE AND CALL FOR PAPERS

INTERNATIONAL WORKSHOP ON WAVE HINDCASTING AND FORECASTING
HALIFAX, NOVA SCOTIA
SEPTEMBER 23-26, 1986

An international workshop on wave hindcasting and forecasting sponsored by the Environmental Studies Revolving Fund (ESRF) will be held at the Bedford Institute of Oceanography from September 23 to 26, 1986. (ESRF is a program jointly administered by the Departments of Energy Mines and Resources, and Indian and Northern Development).

The objectives of the workshop are to:

- review relevant ESRF funded work;
- exchange information on wave hindcasting/forecasting research; and
- discuss priorities for future ESRF funding.

Papers are solicited on both the research and operational aspects of wave hindcasting and forecasting. It is expected that there will be sessions on the following topics:

- a) operational forecasting
- b) hindcasting procedures/ storm selection
- c) non-spectral properties
- d) Canadian Atlantic Storms Project (CASP)
- e) data collection/instrumentation
- f) physical modelling
- g) user requirements (in design and operations)
- h) extreme wave determination

The program will consist of invited as well as contributed papers. Space will also be available for a limited number of displays and posters.

Those wishing to present a paper should submit a title and abstract (100-300 words). Each abstract should contain the author's name, mailing address, and telephone number. Those wishing to participate in the poster session should provide a description of their display including space requirements.

Address correspondence to:

LEM Ltd.
P.O.Box 5548
St. John's, Nfld.
A1C 5W4
Attention: B.R. LeDrew
Tel. (709) 754-2923

Persons interested in attending and receiving a program brochure should write to the above address. The deadline for receipt of abstracts and display requests is 18 April 1986. Acceptance will be confirmed by 19 May, 1986. Final manuscripts must be received by 22 August 1986.

DIRECTORY OF CANADIAN PHYSICISTS

The Canadian Association of Physicists (CAP) has published the above directory which is available for a cost of \$25.00 from the following address.

CAP Office
Suite 805
151 Slater Street
Ottawa, Ontario
K1P 5H3

ATMOSPHERE-OCEAN

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