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La Société canadienne
de météorologie et
d'océanographie

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"at the service of its members
au service de ses membres"

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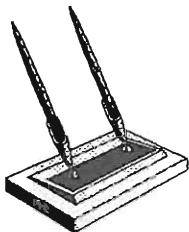
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....from the President's Desk

CMOS friends and colleagues:



The almanac has heralded the passing of summer yet here in the Maritimes the clear sunny days, the warm evenings and the warm lakes and bays make it difficult to return fully to the office and the work that awaits.

This has certainly been an interesting summer throughout Canada and the northern hemisphere with floods and droughts, heat waves and early frosts. Perhaps in a decade's time we will have a better understanding of these patterns and be able to predict their appearance a few months in advance so that our society can better prepare.

The CMOS office has successfully cut its links with the Canadian Association of Physicists and is doing all of its own administration with its own software. Your new executive is quickly learning the multiple tasks that need to be completed in order that the Society can complete its year successfully.

Much of what this Society accomplishes is done by individuals working on committees. Many of these committees need new members to fill vacancies. Now that we have better membership records, we will be phoning a number of you looking for your help. I hope that you consider these requests positively.

Edmonton has been busy over the summer preparing for the 2004 Congress. Read their call for papers in this issue, visit their web-site and begin planning now how your work and that of your colleagues can be featured in the various symposia.

Hope to see as many of you in Edmonton as were in Ottawa and Rimouski!

Allyn Clarke
President / Président
CMOS / SCMO

CMOS exists for the advancement of meteorology and oceanography in Canada.

Le but de la SCMO est de stimuler l'intérêt pour la météorologie et l'océanographie au Canada.

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Cette publication est produite sous la responsabilité de la Société canadienne de météorologie et d'océanographie. À moins d'avis contraire, les opinions exprimées sont celles des auteurs et ne reflètent pas nécessairement celles de la Société.

Letters to the Editor

29 September 2003

I am enclosing [a copy of] my recent report on "Trends and Changes in Extreme Weather Events". Also enclosed are two articles from two newspapers published in the last three weeks.

I received the August issue of *CMOS Bulletin SCMO* last week. There is a lot of interesting material and I would like to congratulate you once again for doing a great job!

If the next issue [of *CMOS Bulletin SCMO*] has space, you may want to include the summary of my extreme weather report. You can cite the website given inside for readers to browse the [full] report.

Keep up the good work.

Madhav Khandekar
Unionville, Ontario.

Response from the *CMOS Bulletin SCMO* Editor

A copy of the report entitled "Trends and Changes in Extreme Weather Events: An assessment with focus on Alberta and Canadian Prairies" is being kept in the library at the CMOS Office in Ottawa. The summary is being published in this issue of the *CMOS Bulletin SCMO* at page 125. The website is indicated along with the summary. Paper copy of the report may be obtained from:

Information Centre, Alberta Environment
Main Floor, Great West Life Building
9920 - 108th Street, Edmonton, Alberta T5K 2M4
e-mail: env.infocent@gov.ab.ca

1 October 2003

In his letter (Vol.31, No.4, p.90) to you dated 27 May, 2003, Madhav Khandekar speculates that the readership of the *CMOS Bulletin SCMO* has increased far ahead of our Journal, *Atmosphere-Ocean*. He is partially right; our print-runs for the Bulletin have been fairly stable or increased slightly to 1000 copies over the last few years, but we have decreased the print-runs for A-O from about 650 in the mid- 90s to 500.

The readership of the Bulletin is essentially the same as the membership of the Society, although there are also institutional subscribers. After the wave of funding cutbacks in governments throughout Canada and the US in the mid 90s we noted a decrease in both membership and subscriptions to A-O. I am pleased to note that membership is now increasing again, whereas subscriptions to A-O (printed) are continuing to decrease. On the other hand, we now have more than 300 registered users of the (free) on-line version of A-O. Furthermore, more than half of the A-O subscribers are libraries and

research institutions, where there may be more than one user. So I cannot confirm or negate Madhav's claim concerning the true readership of either publication.

As the Director of Publications, I would very much like (as would Madhav) to find out why people decide to start or stop their membership or their journal subscriptions, but it is almost impossible to gain any solid information to substantiate a formal statement on these questions.

Richard Asselin
Director of Publications

6 October 2003

When I read the CMOS policy statement on Kyoto (*CMOS Bulletin SCMO*, Vol.31, No.4, p.119) my first reaction was one of disappointment and the feeling that CMOS (the organization) had compromised its scientific objectivity. These emotions are a reflection of how I view the CMOS policy position on an essentially political matter and my belief that it could be perceived to be aimed specifically at quieting any global warming prediction skeptics loitering among its membership. As such, the policy infringes on a key element of the scientific discovery process, i.e. the ongoing debate among members of the science community about the significance of published scientific results and of new concepts that are at the theoretical stage of development.

By the time I had made my way down to position #5 of the statement, I realized just how loosely the CMOS Kyoto policy perspective had been framed (then I remembered that the statement was really the reflection of a consensus by some "special committee"- operating under the watchful eye of the CMOS Executive?). For example, the first part of #5 states that "the world's success in dealing with climate change can only be achieved through an informed population." If that conclusion is taken as fact, then can someone please tell me how the human species has managed to "muddle through" the relatively extreme NATURAL climate changes of the last several hundred thousand years? After all, is it not really climate change that has modulated civilization's dynamic over the centuries and shaped the world as we know it today? Perhaps the public's failure to accept the need for "proactive measures" is founded on a more collectively-wiser understanding that sees adaptation (as practised by hundreds of our predecessor generations) as a more efficient approach to a process that will continue to evolve along essentially unpredictable pathways? Is it possible that there are still some issues for which the currently popular "precautionary principle" is simply not appropriate? In my opinion – at this stage of the experiment - global climate mitigation is still very much a part of that suite of problems.

Charles Schafer, Member
Halifax Centre

(next page)

Response from the Executive

I am not sure what sort of response or action you are seeking with this letter. Since it is [also] addressed to the Editor of the CMOS *Bulletin SCMO*, can we assume that you are submitting it for publication in the ongoing debate on this issue?

When it comes to possible action by the Executive, I am not sure that you are arguing that you don't believe that a scientific society should ever issue policy statements on scientific issues that impact society or that you believe that we were wrong in principle or fact in the framing of this particular policy statement.

The procedures by which CMOS drafts and issues policy statements are set down in the By-Laws. The By-Laws are mute about how the idea that a policy statement is needed should arise, but it assigns the responsibility for the drafting of such statements to the Scientific Committee. Policy Statements are then approved by CMOS Council before being official CMOS policy. The proposal to draft a statement on Kyoto and Climate Change was made to Council by our Edmonton Chapter and the Scientific Committee was asked to proceed from there.

Most scientific societies which include members working in climate science have issued policy statements on climate change which include a statement that the remaining scientific uncertainty should not be used by societies as an excuse to postpone beginning to deal with greenhouse gas emissions and to begin planning adaptation measures. These societies include the American Geophysical Union and the American Meteorological Society. Sixteen national science academies including the Royal Society of London and the Royal Society of Canada jointly published a declaration in 2001 endorsing both the IPCC and the Kyoto processes and urging governments to begin to take action.

I see scientific societies fulfilling two roles with regard to the interface between science and society. First, the scientific society must rigorously defend the opportunities for scientists to investigate scientific questions even when such investigations are examining strongly-held ideas within both the scientific and larger communities. Second, the scientific society must help deliver scientific results to society by assessing the current state of knowledge and providing reports that integrate and synthesize the results of a broad body of science.

With regard to your rhetorical question about how human societies have managed to muddle through climate change in the past, the simple answer is sometimes well and sometimes badly. Historians and archaeologists are increasingly looking at climate change as the cause of the collapse and disappearance of ancient civilizations throughout the globe. Modern developed societies attempt to use science, technology and organization to protect their populations from the worse impacts of disease, famine and natural disaster. We expect the same desire by

governments to reduce the impact of future climate change.

*Allyn Clarke
President, CMOS*

Books in search of a Reviewer Livres en quête d'un critique

Emissions Scenarios, Intergovernmental Panel on Climate Change, Cambridge University Press, Paper Cover, 0-521-80493-0, 2000, \$44.95US.



Climate Change 2001, Synthesis Report, Contribution of Working Groups I, II, and III to the Third Assessment Report of the Intergovernmental Panel on Climate Change, by Robert T. Watson, Editor, April 2002, Cambridge University Press, Paperback Cover, 0-521-01507-3, \$40.00US.

The State of The Nations's Ecosystems, Measuring the Lands, Waters and Living Resources of the United States, The H. Heinz III Center for Science, Economics and the Environment, Cambridge University Press, Paperback Cover, 0-521-52572-1, \$25.00US.

Oil and Hydrocarbon Spills III: Modelling, Analysis and Control, Editor: C.A. Brebbia, Wessex Institute of Technology, Hardback Cover, 1-85312-922-4, \$245.00US.

The High-Latitude Ionosphere and its Effects on Radio Propagation, by Robert Hunsucker and John Hargreaves, Cambridge University Press, Hardback Cover, 0-521-33083-1, \$140.00US.

Exploration of the Solar System by Infrared Remote Sensing, by R.A. Hanel, B.J. Conrath, D.E. Jennings, R.E. Samuelson, Cambridge University Press, Hardback Cover, 0-521-81897-4, \$120.00US.

Handbook of Atmospheric Science, Principles and Applications, Edited by C.N. Hewitt and Andrea Jackson, Blackwell Publishing Ltd, Hardback Cover, 0-632-05286-4, \$300.00US.

Dynamics of the Atmosphere, A course in theoretical meteorology, Wilford Zdunkowski and Andreas Bott, Cambridge University Press, Paperback Cover, March 2003, 0-521-00666-8, \$60.00US.

Coasts: Form, Process and Evolution, Colin D. Woodroffe, Cambridge University Press, Paperback Cover, 0-521-01183-3, \$50.00US.

Global Change and Local Places: Estimating, Understanding and Reducing Greenhouse Gases, Association of American Geographers - GCLP Research Group, Cambridge University Press, July 2003, Hardback Cover, 0-521-80950-9, \$75.00US.

Lightning: Physics and Effects, Vladimir A. Rakov and Martin A. Uman, Cambridge University Press, March 2003, Hardback Cover, 0-521-58327-6, \$200.00US.

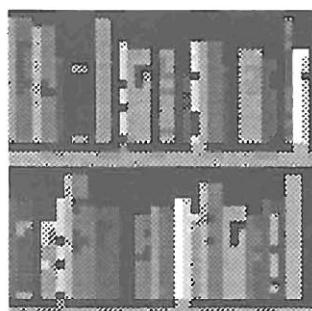
Climate: Into the 21st Century, Edited by William Burroughs, Cambridge University Press, August 2003, Hardback Cover, 0-521-79202-9, \$35.00US.

If you are interested in reviewing one of these books for the *CMOS Bulletin SCMO*, please contact the Editor at the e-mail address provided below. Of course, when completed, the book is yours. The instructions to be followed when reviewing a book for the *CMOS Bulletin SCMO* will be provided with the book. Thank you for your collaboration.

Si vous êtes intéressés à faire la critique d'un de ces livres pour le *CMOS Bulletin SCMO*, prière de contacter le rédacteur-en-chef à l'adresse électronique mentionnée ci-dessus. Bien entendu, le livre vous appartient lorsque vous avez terminé la critique. Les instructions qui doivent être suivies lors de la critique d'un livre dans le *CMOS Bulletin SCMO* vous parviendront avec le livre. Merci pour votre collaboration.

Paul-André Bolduc
Editor / Rédacteur-en-chef
CMOS Bulletin SCMO
paulandre.bolduc@sympatico.ca

Books being reviewed Livres en circulation pour critique



Radiative Transfer in the Atmosphere and Ocean, by Gary R. Thomas and Knut Stamnes, March 2002, Cambridge University Press, Paperback Cover, 0-521-89061-6, \$45.00US. Reviewer: Chris McLinden, ARQX, Air Quality Research Branch, MSC, Toronto, ON.

Land Use, Land-Use Change and Forestry, Intergovernmental Panel on Climate Change, Cambridge University Press, Paper Cover, 0-521-80495-7, 2000, \$29.95US. Reviewer: Richard Fleming, Great Lakes Forestry Centre, Sault Ste Marie, ON.

Ecological Climatology, Concepts and Applications, by Gordon Bonan, August 2002, Cambridge University Press, Paperback Cover, 0-521-80476-0, \$150.00US. Reviewer: Brad deYoung, Physics and Physical Oceanography, Memorial University, St. John's, NL.

Inverse Problems in Atmospheric Constituent Transport, by Ian G. Enting, August 2002, Cambridge University Press, Hardback Cover, 0-521-81210-0, \$100.00US. Reviewer: Dr. Irene Rubinstein, Toronto, ON.

Inverse Modeling of the Ocean and Atmosphere, by Andrew F. Bennett, July 2002, Cambridge University Press, Hardback Cover, 0-521-81373-5, \$80.10US. Reviewer: Dr. Irene Rubinstein, Toronto, ON.

Environmental Change, Climate and Health: Issues and Research Methods, edited by Pim Martens and Anthony J. McMichael, Cambridge University Press, Hardback Cover, 0-521-78236-8, \$90.00US. Reviewer: Sharon Jeffers, Service Météorologique du Canada, Montréal, QC.

Atmospheric Pollution: History, Science and Regulation, by Mark Z. Jacobson, Cambridge University Press, Hardback Cover, 0-521-81171-6, \$110.00US. Reviewer: Claude Lelièvre, Enviromet International Inc., Montréal, QC.

Ecohydrology: Darwinian Expression of Vegetation Form and Function, Peter S. Eagleson, Cambridge University Press, Hardback Cover, 0-521-77245-1, \$110.00US. Reviewer: Nigel Roulet, Department of Geography, McGill University, Montréal, QC.

Meteors in the Earth's Atmosphere: Meteoroids, and Cosmic Dust and their Interactions with the Earth's Upper Atmosphere, Edited by Edmond Murad and Iwan P. Williams, Cambridge University Press, Hardback Cover, 0-521-80431-0, \$80.00US. Reviewer: Chris Wielki, Winnipeg, MB.

Scattering, Absorption and Emission of Light by Small Particles, by Michael I. Mishchenko, Larry D. Travis and Andrew A. Lacis, June 2002, Cambridge University Press, Hardback Cover, 0-521-78252-x, \$90.00US. Reviewer: Syd Peel, Meteorological Research Branch, Meteorological Service of Canada, Downsview, ON.

Polar Lows: Mesoscale Weather Systems in the Polar Regions, Edited by Erik A. Rasmussen and John Turner, Cambridge University Press, Hardback Cover, 0-521-62430-4, \$120.00US. Reviewer: André April, Québec, QC.

Innovative Energy Strategies for CO₂ Stabilization, by Robert G. Watts, Cambridge University Press, Hardback Cover, 0-521-80725-5, \$80.00US. Reviewer: Tracy Garner, Toronto, ON.

ARTICLES

Trends and Changes in Extreme Weather Events: An assessment with focus on Alberta and Canadian Prairies by Madhav Khandekar

Summary

This report examines recent studies on trends and changes in extreme weather events in Canada and assesses these studies in the context of global warming. The assessment suggests that extreme weather events (hot spells, extreme precipitation events, thunderstorms/tornadoes and ice storms) do not show an increasing trend anywhere in Canada, or over the Canadian prairies at this point in time. On the Canadian prairies, extreme cold spells and winter blizzards are definitely on the decline during the past 40 years. In the higher latitudes of the northeast, from Baffin Bay to Labrador, extreme cold spells have increased in the last 50 years. The total precipitation has increased everywhere in Canada but this increase is mainly due to an increase in low-to-moderate-intensity events. The Canadian prairies have experienced drought conditions during the mid-1980s and more recently during 1998/99 and in 2001. These drought patterns appear to be primarily governed by the phase of ENSO (El Niño-Southern Oscillation) cycle. Canada as a whole is not getting hotter, but less cold. Canada as a whole is getting a little wetter. On the Canadian prairies, low intensity precipitation events have increased in the last 50 years, and for Alberta, summer precipitation has increased by about 10 per cent. Thunderstorms and tornadoes are not increasing on the prairies at this point in time.

There is a considerable variability (and uncertainty) in many of the climate model projections of extreme weather occurrences, particularly in regard to the timing of the occurrences. Based on the careful evaluation of available studies, it appears that the likelihood of increased incidences of extreme weather events during the next ten to twenty years over any region of Canada is very small at this time.

The present database in Canada, with respect to several extreme weather events like thunderstorms (with or without tornadoes), severe windstorms, hail and lightning is not adequate for assessment of long-term trends and changes. Many of these extreme weather events have been monitored and suitably archived only during the last 25 years or so. A few studies reported recently suggest that some of the extreme weather events like severe tornadoes and windstorms may have declined in frequency, following the dust bowl years of the 1920s and 1930s over the Canadian prairies. In higher latitudes, the Canadian database on extreme precipitation and stream flow is also inadequate for long-term analysis. There is a definite need to critically assess the available data and develop special techniques for assessing long-term trends in many of the extreme weather elements.

Please note that the full report can be found at the following website address:

<http://www3.gov.ab.ca/env/climate/docs/TrendsAndChangesInExtremeWeatherEvents-April2003.pdf>

SPARC 3rd General Assembly

1 - 6 August 2004, Victoria, British Columbia, Canada

Deadline for Abstracts Submission is January 31, 2004

The General Assembly will cover all the topics of relevance to SPARC, including:

- + Stratospheric climate and indicators of climate change;
- + Transport and mixing in the stratosphere and between stratosphere and troposphere;
- + Gravity-wave processes and their parameterization;
- + Chemistry, radiation, aerosols and dynamics in the upper troposphere/lower stratosphere;
- + Chemistry-climate modelling of the stratosphere.
- + Stratospheric data assimilation;
- + Stratospheric and upper tropospheric water vapour;

A particular emphasis for this General Assembly will be chemistry-climate coupling.

Stratospheric Processes And their Role in Climate (World Climate Research Programme)

SPARC 2004 Official Web Site: <http://sparc.seos.uvic.ca>

HOW PREDICTABLE IS EL NIÑO ? SCIENCE DOES HAVE LIMITATIONS

by A. V. Fedorov¹, S. L. Harper¹, S. G. Philander¹, B. Winter¹, and A. Wittenberg¹

Why are different El Niño episodes so different and so difficult to predict? The answer may involve atmospheric noise -- bursts of wind and other transient atmospheric events that are nearly impossible to predict but have an important effect on the overall intensity and perhaps the length of El Niño events.

A group of scientists at Princeton University analyzed computer models of past El Niño events and concluded that the effects of noise may fundamentally limit how precisely El Niño events can be predicted. El Niño and its complementary event La Niña are alternating warm and cold phases of the tropical ocean waters. Together they are known as the Southern Oscillation and have a profound effect on weather throughout the Pacific rim.

"We have a relatively solid understanding of the Southern Oscillation, including El Niño and La Niña," said Alexey Fedorov, a researcher at Princeton University and author of the study appearing in a recent issue of the *Bulletin of the American Meteorological Society*. "But it's the smaller atmospheric disturbances, such as wind bursts, that sometimes challenge the computer models and make the predictability of El Niño events inevitably limited, especially when it comes to intensity of an event."

Wind bursts and other atmospheric noise occur over timescales of days or weeks, while the average period of the Southern Oscillation is 3-5 years. For example, the occurrence of an El Niño event in 1997 was predictable based on the information about the phase of the Southern Oscillation, but the amplitude of the event could not have been anticipated. As many scientists have argued, rapid succession of several westerly wind bursts, which are relatively rare phenomena, helped change the dynamics of the 1997 El Niño, which was the strongest in the 20th century.

In the case of daily weather forecasting, the initial conditions used in the complex numerical model calculations have a tremendous impact on the model outcome or forecast. Just a minor error in the initial conditions, say temperature or precipitation, can result in a wrong forecast.

For the models that run El Niño predictions, errors in initial conditions are important in predicting the event. However, how the atmospheric disturbances interact with the Southern Oscillation is another crucial factor, added

Fedorov. "In the absence of noise, El Niño would be perfectly predictable because the Southern Oscillation would be perfectly periodic while its amplitude slowly weakens," said the Princeton scientist. "Noise maintains the oscillation and makes it irregular."

If this is indeed the case, then predictions ought to be probabilistic, according to the researchers. The group believes running an ensemble or combination of numerical models all using the same starting conditions but each superimposed with different atmospheric noise will show a range of outcomes.

Source: American Meteorological Society (AMS) web site:
<http://www.ametsoc.org/AMS>

Reference:

Fedorov, A.V., Harper, S.L., Philander, S.G., Winter, B., Wittenberg, A., *How Predictable is El Niño?*, Bulletin of the American Meteorological Society: Vol. 84, No. 7, pp. 911-919.

Next Issue CMOS Bulletin SCMO

Next issue of the *CMOS Bulletin SCMO* will be published in December 2003. Please send your articles, notes, workshop reports or news items at the earliest to the address given on page ii. We have an **URGENT** need for your articles.

Prochain numéro du CMOS Bulletin SCMO

Le prochain numéro du *CMOS Bulletin SCMO* paraîtra en décembre 2003. Prière de nous faire parvenir au plus tôt vos articles, notes, rapports d'atelier ou nouvelles à l'adresse indiquée à la page ii. Nous avons un besoin **URGENT** d'articles.

¹ Atmospheric and Oceanic Sciences Program, Department of Geosciences, Princeton University, Princeton, New Jersey, USA.

CMOS in 2003/2004 and its FUTURE

BACKGROUND

CMOS has a distinguished history. It began modestly in 1939 when a group of meteorologists obtained a charter from the Royal Meteorological Society to establish a Canadian Branch. By 1967, it had grown in size to the point when its members agreed to form a uniquely Canadian organization, the Canadian Meteorological Society. Ten years later, in 1977, the oceanography community joined the organization and it became known as the Canadian Meteorological and Oceanographic Society. CMOS has been a major unifying force in bringing meteorologists and oceanographers together ever since.

CMOS was conceived in an era dominated by government and academia and developed through a strong focus on the physical atmosphere-ocean system. It has greatly expanded this focus over the years to include most aspects of meteorology and oceanography, including research, operations, services and a strong professional role related to private sector applications.

1. AIM OF CMOS

CMOS exists for the advancement of meteorology and oceanography in Canada.

CMOS covers most issues of concern to government, academic and private sector interests, including but not restricted to:

- Atmospheric sciences, including air quality and chemistry;
- Physical, chemical and biological oceanography;
- Cryospheric sciences related to meteorology and oceanography;
- Operational meteorology and oceanography, nowcasting, forecasting and hindcasting; and
- Interactions at boundaries, from a meteorology and oceanographic perspective, including air/sea interactions, land surface interactions (atmosphere/land, coastal oceanography, and ocean/sediments), atmosphere/health interactions, and oceanic influences on marine life.

While CMOS has interests in most aspects of the ocean, it has not concerned itself with marine life *per se* (e.g. fisheries) except in so far as studying ocean processes that directly affect marine life is concerned.

CMOS is also concerned with sister studies in hydrology, limnology and paleoclimate. Hydrology is the scientific

study of the waters of the Earth, especially in relation to the cycle of water in the atmosphere, streams, lakes, oceans, and on and below the land surface. Paleo interests examine records (ice, sediment, tree rings, etc.) aimed at reconstructing past climates in order to understand, model and predict the climate system.

It is also clear that CMOS is more than a "learned society", with a focus not only on its relevant sciences but also on its professional activities.

- There is a strong applications component to our field, beyond historic operational forecasting and research interests.
- There is now a significant private sector associated with meteorology and oceanography.
- There are strong associations with fields such as computing, engineering and communication.
- There is a large body of weathercasters now endorsed by the Society.

Over the last 10 years there has been a considerable expansion of the Society and its activities, including interactions with other Societies. These developments have evolved in concert with the evolution of the Society towards more professional management. To move ahead, it is crucial that CMOS maintain its strong roots while broadening its scope.

As a Canadian Society with this vision, it is also critical that CMOS

- be recognized as a strong voice in meteorology and oceanography in Canada, and be seen as such internationally.

Note from the Editor

CMOS members are invited to forward their comments on this paper to the Executive Director's office before the end of the calendar year in order to prepare amendments to the constitution and By-laws. Send your comments at the earliest to cmos@meds-sdmm.dfo-mpo.gc.ca

CMOS is already achieving the above two functions to a considerable degree. For example, nationally, CMOS has strongly supported research and operations. It has and still is supporting the private sector, and it was instrumental in developing and maintaining the Canadian Foundation for Climate and Atmospheric Sciences. Internationally for

example, its refereed journal (*Atmosphere-Ocean*) has been ranked 10th of all journals in the world dealing with oceanography. However, much more can and should be done.

It is important to realize that many members of CMOS are also members of other societies in other countries such as the American Meteorological Society, the American Geophysical Union, and the Royal Meteorological Society of the United Kingdom. These societies are much larger than CMOS and have far greater resources. Nonetheless, CMOS is the only one that focuses on Canadian issues. The effectiveness of CMOS is strengthened through its members who belong to such bodies and can apply their international experiences and activities to the Canadian scene.

To be able to achieve and maintain its aim, CMOS must continue to attract a substantial fraction of the community engaged in meteorological and oceanographic affairs in Canada.

2. CMOS ACTIVITIES

To achieve its aim, CMOS has purposely established itself as the representative body of the oceanographic and meteorological communities in Canada. It has done this through numerous communication, coordination, education and advocacy activities.

Current activities that are offered by CMOS to the atmospheric and oceanographic communities are:

- An Annual Congress (where some 450 papers/posters are presented);
- A refereed journal (*Atmosphere-Ocean* is published 4 times/year);
- A professional hard copy Bulletin, mailed to all Members 6 times/year;
- A comprehensive web site, at www.cmos.ca;
- An Annual General Meeting (AGM) open to all Members and other interested individuals;
- Outreach educational material such as Project Atmosphere Canada, and a major Teachers' Day at Congresses;
- Organizing and supporting a national Tour Speaker program;
- "Lobbying" of government and funding agencies;
- Sponsorship of conferences;
- Provision of scholarships and awards;

- Student travel bursaries;
- Supporting regional youth science fairs;
- Position statements regarding critical scientific issues;
- 'CMOS initiated' documents;
- Organization of working groups and reports on behalf of other organizations;
- Documents initiated by others but produced in part through CMOS sponsorship;
- Management of Canadian National Committees (CNCs) for oceanographic and climate research programs (SCOR) and ocean engineering (ECOR), and for some programs of the Intergovernmental Oceanographic Commission (IOC) of UNESCO;
- Provision of display opportunities for "exhibitors";
- Developing and administering standards of professionalism;
- Accreditation of consultants;
- Endorsement of weathercasters; and
- Provision of "symbols" of CMOS history and continuity.

In addressing the above activities - all need to be maintained, some need to be strengthened, and additional proactive initiatives need to be developed. Future actions include:

- Consideration of associate and/or *ex-officio* affiliations with other organizations that have similar interests to CMOS;
- Encouragement to CMOS Centres for the planning and organization of regional workshops by offering financial assistance; as is the case for CMOS Congresses;
- Consideration of joint conferences with other Societies, bearing in mind cost-sharing of profits and losses;
- Enhancement of our role in the area of professional standards;
- Improvement of our communication and public outreach initiatives; and
- Hosting national and international working and study groups.

In general, CMOS has been relatively passive with respect to the organization of regional and/or focused workshops. It has normally sponsored a few of these per year but it has not done so in a proactive manner. Undertakings of this nature will be aggressively pursued to become a normal function of CMOS Centres.

To broaden the scope of CMOS, it should consider working with other groups that are able to offer additional or special services that would enhance CMOS interests. Such interests could take the form of a unique new advance in technology, modelling or advancement in associated sciences. In return CMOS could offer its well-recognized experience in the development and application of standards as is the case for the CMOS consulting and broadcast fields.

3. THE ORGANIZATIONAL STRUCTURE OF CMOS

The CMOS Executive and Council represent the core structure of the Society.

- The Executive Committee consists of the President, Past-President, Vice-President, Treasurer, Corresponding Secretary and Recording Secretary. The CMOS Executive Director and the Director of CMOS Publications are *ex-officio* members of the Executive Committee;
- The Council consists of the Executive, Chairpersons of Centres/Chapters and Committees, as well as elected Councillors-at-Large (normally three, but it is proposed that they could number up to five in any one year). Councillors-at-Large have not been members of the Executive Committee to date, but they will be made so in order to expand the role of the Executive in preparing reports, studies, analyses for Council and the Society;
- Executive Director's Office;
- Centres/Chapters are: Vancouver Island, BC Lower Mainland, BC Interior Mainland (Kelowna), Alberta (Edmonton), Saskatchewan, Winnipeg, Toronto, Ottawa, Montréal, Québec City, Rimouski, Fredericton, Halifax and St. John's;
- Many Committees (see Attachment I);
- Volunteers; and
- The Annual General Meeting (AGM) is the vehicle to report progress, raise possible new initiatives, review the CMOS budget and audit of CMOS finances, elect officers, and propose changes to the CMOS Constitution and By-Laws as appropriate.

The present organizational structure has served CMOS well, but changes are suggested. There is a consensus that the two titles 'Centres and Chapters' are redundant and only one should be used. Also, several of the larger Centres such as Vancouver, Toronto, and Montréal could be sub-divided to facilitate some meetings. The observation that has been made in these locales is one of little interest in organizing yet another seminar. Thus a smaller unit, such as a single university or establishment could deal with special topics or activities of their interest under a CMOS banner.

The responsibilities of the current Executive Members and Executive Office are reasonably shared. However, with the expanding growth in CMOS, the President and Executive Director are shouldering more responsibilities than ever before. It is now common for 100 or more e-mails a week to be sent to the Executive Director alone; the President now has additional responsibilities in regard to the Canadian Foundation for Climate and Atmospheric Sciences.

Now with the Executive Director's office assuming responsibility for all CMOS business affairs, some of which were previously contracted out, CMOS has engaged a business manager to run the financial affairs of the Society. The purchase of new data base software also gives this office more capability in maintaining up-to-date memberships, subscription records and representation on committees. The direction and policy of CMOS still remain as functions of the CMOS Council and Executive, and ultimately the AGM.

There is a need to strengthen the Executive Committee with members that have no specifically assigned responsibilities but who can undertake investigative tasks as assigned to them by the Executive. CMOS Councillors-at-Large should take on this role. At the present time Councillors-at-Large have no role, except to provide wise counsel and ensure a wider representation of the community at Council meetings. There is already a very large Council, around 30 or so, so it is hard to justify the position of Councillor-at-Large merely on the basis of wider representation on Council. Councillors-at-Large will be mandated with specific short-term duties and be required to report on progress regularly at Executive and/or Council meetings. Envisioned roles include such issues as to represent and provide continuity for Annual Congresses, prepare guidelines for the preparation of regional workshops, assess the pros and cons of conference partnerships and conduct in-depth studies and reviews on issues of concern to the Society. Attachment II provides a discussion of these possibilities.

The lack of involvement of the Operational Meteorological community within CMOS has been an ongoing issue. Despite the fact CMOS has debated this issue for years, there has been no progress in drawing these potential members into the Society. Members of that group will be invited to identify their specific interests and activities they

would want to see from CMOS.

At one time "Special Interest Groups" were quite active in CMOS; their life depended on the enthusiasm of the organizing chairperson. Once he or she departed the scene, the follow-up failed to carry the Group forward. Since no new Special Interest Group has emerged in the past ten years, their continued representation in the By-laws will be deleted.

In addition, CMOS will consider whether it can do more to address student needs. An *ad hoc* group will be formed to address this issue and to recommend what, if any, activity beyond those currently being undertaken is worthy of consideration. Organizers of Congresses will be encouraged to add an informal student session at an Annual Congress to discuss issues such as job opportunities, stipends and tuition, and provide a venue for students to meet and greet potential employers in government, business and universities.

4. CMOS HUMAN AND FINANCIAL RESOURCES

CMOS has been reasonably successful in finding volunteers to serve as chairpersons of Centres but not quite so in selecting committee chairpersons. For the latter the committees themselves have been asked to name their respective chair replacements. This policy has not proven to be very effective; all too often committees have carried on without a chair. Ultimately the Executive is obliged to find a chair and if not, someone on the Executive fills that vacancy. To say the least, this does not answer the problem. A better solution is to mandate a Councillor-at-Large to track committee memberships and seek out potential replacements as suggested in Attachment II.

CMOS needs volunteers to take leadership roles within the Society and to step forward to help out with a myriad of tasks. CMOS can only function in this manner. To help achieve this, it is critical that:

- CMOS finds interesting, challenging and satisfying work for volunteers; and
- CMOS finds improved ways of 'thanking' its volunteers.

CMOS also needs funds to carry out its goals. Funds are needed for:

- Travel support;
- Telecommunications;
- Lobbying; and
- Budget for Committees.

Specific funding increases above that currently being used include:

- Additional funds for supporting the CMOS Executive Director's Office;
- Funds for Committees for more telecommunications and meetings;
- More travel support for lobbying efforts;
- Contracts to underwrite working groups; and
- Specialized meetings and workshops.

A Fund Raising Policy Paper and Implementation Plan is needed to provide guidance on how the Society could and should raise funds, whether it be for charitable purposes or for general revenue.

5. CONCLUDING REMARKS AND RECOMMENDATION

CMOS is the only society in Canada concerned with the atmosphere and ocean, including interactions with hydrology and fresh water bodies. CMOS has a long and proud history of success.

To move ahead in these challenging and exciting times, CMOS must improve and discuss its future, in the context of this document. The CMOS Executive and the CMOS Councillors-at-Large will finalize this document with the help of others and once approved by the Executive and Council present it to the AGM for adoption along with any necessary changes to the CMOS Constitution and By-Laws. In the meantime, many of the issues and principles that are outlined in this vision paper will be acted upon in the short-term in so far as is feasible, to meet some of the identified needs.

Prepared and edited by *Neil J. Campbell*.

With contributions by *Ronald Stewart, Richard Stoddart, Dan Kelley* and others.

Ottawa, September 26, 2003.

ATTACHMENT I

CMOS COMMITTEES

The following committees are listed according to their main core activity:

I. INCOMING MEMBERS

Membership Committee:

1. To encourage potential members to join CMOS.
2. To support the CMOS Executive and Council on membership matters as required.

II. EDUCATION

School and Public Education Committee:

1. To enhance and promote school and public education in Canada.
2. To support the CMOS Executive and Council on school and public education matters.

University and Professional Education Committee:

1. To enhance and promote university and professional education in Canada.
2. To support the CMOS Executive and Council on university and professional education.

Publications Coordinating Committee:

1. To set policies on the content, style, format and related matters pertaining to CMOS publications.
2. To support the CMOS Executive and Council on publication matters as required.

III. SPECIAL INTEREST COMMITTEES

Scientific Committee:

1. To serve as the focus for scientific issues of importance to the Society.
2. To identify and promote research issues of importance to the Canadian research community in meteorology and oceanography.
3. To work with the other CMOS committees as appropriate to present scientific issues to government and public.
4. To adjudicate the CMOS/Weather Research House Scholarship applicants for the award of this scholarship.
5. To support the CMOS Executive and Council on scientific matters as required.

The Private Sector Committee:

1. To serve as the focus for private sector issues of importance to the Society.
2. To advocate, as necessary, for and on behalf of the private sector in meteorology and oceanography, in the context of societal activities and initiatives.
3. To support the CMOS Executive and Council on private sector matters as required.

IV. SELECTIONS

Nominating Committee:

1. To nominate the upcoming year's slate of Executive members.
2. To support the CMOS Executive and Council on executive matters as required.

Prizes and Awards Committee:

1. To select candidates for prizes and awards for presentation at the annual CMOS Congress.
2. To support the CMOS Executive and Council on matters of prizes and awards as required.

Fellows Committee:

1. To select new Fellows for CMOS to be announced at the annual CMOS Congress.
2. To support the CMOS Executive and Council on matters dealing with Fellows as required.

V. STANDARDS

Weathercaster Endorsement Committee:

1. To ensure that the qualifications of Canadian weathercasters endorsed by the Society are credible.
2. To foster the establishment and maintenance of a high level of professional conduct in the presentation of weather to the public.
3. To support the CMOS Executive and Council on broadcast matters as required.

Accreditation Committee:

1. To ensure that a basic level of qualifications has been achieved and recognized in meteorology or oceanography for anyone engaged in meteorological/oceanographic consulting.
2. To foster the establishment and maintenance of a high level of professional competency and mature and ethical counsel in the fields of consulting meteorology/oceanography.
3. To support the CMOS Executive and Council on accreditation matters as required.

VI. ADVOCACY

External Relations Committee:

1. To represent the interests of CMOS and present such views to other groups or bodies.
2. To act as an advisory group to the Executive and Council on CMOS discussions with others on matters linked to Canadian meteorological and oceanographic research and science.
3. To support the CMOS Executive and Council on external relations matters as required.

ATTACHMENT II

POTENTIAL RESPONSIBILITIES OF COUNCILLORS-AT-LARGE

The Executive Director and staff in the Executive Director's office are already undertaking many of the following suggestions to some degree. These suggestions are intended to spread the workload burden and to provide specific mandates for Councillors-at-Large. The following is a shopping list, outlining a wide range of possibilities. The following list of possibilities need not be implemented in any given year. The CMOS Executive will use its discretion to decide on the interest and priority to assign the following responsibilities to Councillors-at-Large on an annual basis.

1. Liaison outside of CMOS

A designated Councillor-at-Large would follow, liaise and report on the interests of related organizations, such as CFCAS, Royal Society, CGU, PAGSE, ICSU and others. Emphasis would be on the undertaking of joint ventures, coordinated assessments and policies spanning related groups, and identification of outreach opportunities. Liaison with such bodies need not be assigned to just one Councillor-at-Large; there are sufficient differences amongst such bodies to justify the interest and attention of several individuals.

2. Liaison within CMOS

Many agencies have standing committees on administrative matters to review and recommend actions on an ongoing basis. At present CMOS relies on busy Council meetings and AGMs to have such issues discussed on a broad basis. Several standing committees, to mirror those of sister agencies, are possible in CMOS, as such issues as finance and investment, publications, communications, and possibly others.

2a. A Finance and Investment Committee, consisting of the CMOS Treasurer, the CMOS Business Manager and a Councillor-at-Large would: analyse revenue and expenditure trends, assess overheads and needed support costs, assess investments and liabilities, identify new initiatives that may require fund-raising activities, review bids from prospective CMOS auditors, etc.

2b. A Publications Committee already exists for CMOS, but it only meets annually. A Publications Committee, consisting of the CMOS Publications Director, the CMOS Webmaster, the CMOS Bulletin Editor, the A/O Editors, and a Councillor-at-Large would act as a sounding board for change/enhancement/review of all visible CMOS publication efforts, including possible new initiatives.

2c. A Communications Committee would be formed consisting of the CMOS Executive Director, the CMOS Publications Director and a Councillor-at-Large. Also included could be the Chair of the LAC for the Congress-of-the-year, and the Chair of the Scientific Committee. CMOS undertakes a number of high profile activities that could be publicized through press releases and other outreach activities. We need to advertise, or we will never be become known or consulted. Press releases on CMOS policy statements, or reactions to government initiatives on program reductions or enhancements, major award winners, elected fellows, tour speaker events are all examples of what would be done to enhance the image of CMOS. The preparation of pamphlets on CMOS and its initiatives, posters, PR material, etc. would be considered by a Communications Committee.

3. Strategic Planning

Analysis and preparation of specific position papers (CMOS vision paper), review and amendment of bylaws, assessment of how local centres are prospering or not and how they might be helped, etc., could be subcontracted to one or more Councillors-at-Large, under the guidance of the Executive Director.

4. Congress Scientific Programs

Council traditionally has very little input to the scientific programs of Congresses. Council selects venues and approves LAC Chairs for Congresses. There tends to be some continuity from Congress to Congress in the way of theme sessions since there is obvious interest in having a successful program, often based on the immediate experiences of the most recent Congress. A Councillor-at-Large, mandated with a view to thinking 3-5 years in advance, could pave the way for the design of future Congresses. There are many programs that have planning horizons in a 3-5 year range, as is the case for most of the CFCAS and NSERC network grants. If the seed is planted early by a Councillor-at-Large or by some other appropriate CMOS mechanism, other relevant organizing bodies might be persuaded to hold wind-up or interim sessions at a CMOS Congress. Also, some continuity is required within Council for important issues that have been started but need an advocate if they are to grow and prosper for future Congresses, such as teachers' day, women in meteorology and oceanography, etc. Intervention of this nature at Council deliberations could ensure thinking of long-range activities that would maximize future contributions and benefits to the Society. Local scientific program committees will be appreciative of any extra thinking and suggestions with respect to their specific programs.

5. Special Issues of A-O

Special issues of A-O on particular themes (Northwater, MAGS, etc.) are a boon to Canadian science. They synthesize research results in one place. They highlight accomplishments and provide a scientific accounting of efforts expended. They are flagship volumes for Principal Investigators (PI) and for CMOS. These special issues usually occur because of the interest of a particular PI, or A-O editor who has thought ahead – however, these opportunities can, and often do, go elsewhere for publication of results. A Councillor-at-Large, or some other CMOS mechanism such as a specific mandate of a Publications Committee, could be planning ahead on a 3-5 year time horizon to encourage major Canadian programs or subsets of international programs, to publish their results in special issues of A-O. As for the case of long-range planning for Congresses, CMOS should have a long-term view and proactive approach to ensuring a suite of special issues for future publications.

6. Representation on CMOS Committees

A Councillor-at-Large could be charged to review, with the Chairs of all committees, the membership representation on all CMOS committees with the aim of having the adequacy of numbers, terms of office, rotation, etc. regularized. CMOS would then have a proactive mechanism that would ensure the necessary representation and chairmanships on all committees. Some CMOS committees already undertake this function rather well, while others do not. A Councillor-at-Large would see that all appointments are handled uniformly across all committees, and would ensure one non-committee member (a Councillor-at-Large) to be part of the membership selection process.

La SCMO en 2003/2004 et son Avenir

HISTORIQUE

L'histoire de la SCMO est exceptionnelle. Elle commence modestement en 1939 lorsqu'un groupe de météorologues obtient une charte de la "Royal Meteorological Society" afin de fonder une succursale canadienne. En 1967, elle était devenue si importante que ses membres décident de créer une organisation unique canadienne, la Société météorologique du Canada. Dix ans plus tard, en 1977, la communauté océanographique se joint à l'organisation qui devient la Société canadienne de météorologie et d'océanographie. Depuis, la SCMO est une force unificatrice importante entre météorologues et océanographes.

La SCMO a été fondée à une époque dominée par les institutions gouvernementales et académiques et s'est développée grâce à l'accent porté sur le système physique atmosphère-océan. Au cours des années, l'accent s'est grandement élargi afin d'inclure la plupart des aspects de la météorologie et de l'océanographie, dont la recherche, les opérations, les services et un solide rôle professionnel relié au secteur privé.

1. BUT DE LA SCMO

La SCMO vise à faire avancer la météorologie et l'océanographie au Canada.

La SCMO couvre la plupart des préoccupations des secteurs gouvernementaux et académiques, ainsi que les intérêts du secteur privé, y compris mais sans s'y limiter:

- Aux sciences de l'atmosphère, y compris la

qualité de l'air et la chimie;

- À l'océanographie physique, chimique et biologique;
- Aux sciences cryosphériques reliées à la météorologie et à l'océanographie;
- À l'océanographie et la météorologie opérationnelles, la prévision immédiate, la prévision du temps et la prévision a posteriori;
- Aux interactions aux frontières, de la perspective de la météorologie et de l'océanographie, y compris aux interactions air/mer, aux interactions terrestres (atmosphère/continent, océanographie côtière et océan/sédiments), aux interactions atmosphère/santé et aux influences océaniques sur la vie marine.

Même si les intérêts de la SCMO englobent la plupart des domaines de l'océan, cette dernière a choisi de ne pas s'intéresser à la vie marine en soi (p. ex. aux pêcheries), sauf en ce qui concerne l'étude des processus océaniques qui affectent directement la vie marine.

Les membres de la SCMO sont invités à faire parvenir leurs commentaires au bureau du directeur exécutif avant la fin de l'année civile afin de préparer les modifications à la Constitution et aux règlements. Envoyez vos commentaires au plus tôt à l'adresse électronique: cmos@meds-sdmm.dfo-mpo.gc.ca

La SCMO s'intéresse aussi aux études connexes de l'hydrologie, la limnologie et la paléoclimatologie. L'hydrologie est l'étude scientifique des eaux de la Terre, en particulier en relation au cycle de l'eau dans l'atmosphère, aux ruisseaux, lacs et océans, ainsi qu'à l'eau sur ou sous la surface terrestre. La paléoclimatologie reconstitue le climat du passé en examinant des données (glace, sédiment, cercles des arbres, etc.) afin de comprendre, modéliser et prévoir le système climatique.

Il est évident que la SCMO est bien plus qu'une «société savante» et qu'elle se préoccupe non seulement des sciences connexes, mais aussi de ses activités professionnelles.

- Il existe une forte composante d'applications à notre domaine, au-delà de la prévision opérationnelle historique et des intérêts en recherche.
- Il existe maintenant un imposant secteur privé associé à la météorologie et à l'océanographie.
- Des liens serrés ont été tissés avec des domaines comme l'informatique, le génie et les communications.
- La Société compte maintenant un bon groupe de présentateurs météo agréés.

Au cours des dix dernières années, la Société et ses activités se sont étendues afin d'inclure des activités avec d'autres Sociétés. L'avènement de ces changements s'est fait de concert avec l'évolution de la Société vers une gestion plus professionnelle. Pour aller de l'avant, il est essentiel que la SCMO maintienne de solides racines tout en élargissant ses horizons.

En tant que Société canadienne avec ce genre de vision, il est aussi essentiel que la SCMO:

- Soit reconnue en tant que voix importante de la météorologie et de l'océanographie au Canada, de même qu'à l'échelle internationale.

La SCMO réalise déjà ces deux fonctions à un certain degré. Par exemple, à l'échelle nationale, la SCMO a fortement appuyé la recherche et les opérations. Il a appuyé, et le fait toujours, le secteur privé et a contribué au développement et au maintien de la Fondation canadienne pour les sciences du climat et de l'atmosphère. À l'échelle internationale, sa revue scientifique (*Atmosphere-Ocean*) a été classée au 10^e rang de toutes les revues océanographiques au monde. Toutefois, nous pouvons et devons accomplir beaucoup plus.

Il est important de réaliser que de nombreux membres de la SCMO sont aussi membres de sociétés dans d'autres pays comme la "American Meteorological Society", la "American Geophysical Union" et la "Royal Meteorological

Society" du Royaume-Uni. Ces sociétés sont beaucoup plus importantes que la SCMO et possèdent bien plus de ressources. Pourtant, la SCMO est la seule qui se concentre sur les problèmes canadiens. L'efficacité de la SCMO est renforcé par ses membres qui appartiennent à d'autres organismes et peuvent mettre en application leurs expériences et activités internationales au Canada.

Pour arriver à atteindre et à maintenir son but, la SCMO doit continuer à attirer une partie de la communauté engagée envers la météorologie et l'océanographie au Canada.

2. ACTIVITÉS DE LA SCMO

Pour atteindre son but, la SCMO s'est elle-même positionnée comme l'organisme représentatif des communautés océanographique et météorologique au Canada. Elle y est parvenue par de nombreuses activités éducatives, de coordination, de défense des intérêts et communication.

Voici les activités offertes présentement par la SCMO aux communautés atmosphérique et océanographique:

- Un congrès annuel (quelque 450 présentations et affiches);
- Une revue scientifique (*Atmosphere-Ocean* est publiée quatre fois par année);
- Un bulletin professionnel en version papier posté à tous les membres six fois par année;
- Un site Web exhaustif au www.scmo.ca;
- Une assemblée générale annuelle (AGA) ouverte à tous les membres et autres personnes intéressées;
- Documentation de sensibilisations comme le Projet Atmosphère Canada et une importante Journée des enseignants lors des congrès;
- Organisation et appui au programme national de conférenciers itinérants;
- «Lobbying» auprès des organismes gouvernementaux et de financement;
- Parrainage de conférences;
- Remise de bourses d'études et de prix;
- Bourses de voyage pour étudiants;
- Appui aux expo-sciences régionales pour la jeunesse;

- Énoncés de position sur d'importants problèmes scientifiques;
- Documents 'initiés par la SCMO';
- Organisation de groupes de travail et de rapports pour le compte d'autres organismes;
- Documents initiés par d'autres, mais produits en partie grâce à une contribution de la SCMO;
 - Gestion des Comités nationaux canadiens (CNC) pour les programmes de recherche océanique et climatologique (SCOR) et de recherche en ingénierie océanique (ECOR), ainsi que pour des programmes de la Commission océanographique intergouvernementale (COI) de l'UNESCO;
 - Possibilité d'occasions d'affichage pour les exposants;
 - Rédaction et gestion des normes professionnelles;
 - Accréditation des experts-conseils;
 - Agrémentation des présentateurs météo;
 - «Symboles» de l'histoire et de la continuité de la SCMO.

Nous réalisons toutes les activités citées ci-dessus; toutefois, toutes doivent être maintenues, certaines doivent être renforcées et des mesures proactives additionnelles doivent être développées. Les actions futures comprennent, entre autres:

- Considérer des affiliations d'associé et/ou de membre d'office avec d'autres organisations qui ont des intérêts similaires à la SCMO;
- Encourager les Centres de la SCMO à planifier et à organiser des ateliers régionaux en offrant de l'aide financière;
- Considérer la possibilité de conférences conjointes avec d'autres sociétés, en tenant compte du partage des profits et des pertes;
- Améliorer notre rôle dans le domaine des normes professionnelles;
- Améliorer nos initiatives de sensibilisation au public et nos communications;
- Être l'hôte de groupes d'études ou de travail nationaux et internationaux;

En général, la SCMO a été assez passive lorsqu'il s'agit

d'organiser des ateliers de travail thématiques et/ou régionaux. La Société commandite quelques-uns de ces événements chaque année, mais sans en être d'abord prévenue. Nous serons activement à la recherche de ce type de projets afin qu'ils fassent partie intégrante des Centres de la SCMO.

Afin d'élargir son étendue, la SCMO devrait étudier la possibilité de travailler avec d'autres groupes qui peuvent offrir des services spécifiques ou additionnels qui amélioreraient les intérêts de la SCMO. Ces intérêts pourraient impliquer une nouveauté technologique unique, en modélisation ou dans une science associée. En retour, la SCMO pourrait offrir son expérience éprouvée dans le développement et l'application de normes, comme c'est le cas pour les domaines de la consultation et de la diffusion.

3. STRUCTURE ORGANISATIONNELLE DE LA SCMO

Le Conseil et l'Exécutif de la SCMO représentent la structure de base de la Société.

- Le comité exécutif est composé du président, du président sortant, du vice-président, du trésorier, du secrétaire-correspondant et du secrétaire d'assemblée. Le directeur exécutif de la SCMO et le directeur des publications de la SCMO sont des membres d'office du comité exécutif;
- Le Conseil est composé des membres de l'Exécutif, des présidents des Centres/Secteurs et des Comités, ainsi que des conseillers généraux élus (d'habitude trois, mais il est proposé que ce chiffre soit augmenté jusqu'à cinq par année). À ce jour, les conseillers généraux n'ont jamais été membres du comité exécutif, mais ils le deviendront afin d'élargir le rôle de l'Exécutif dans la préparation de rapports, d'études et d'analyses pour le Conseil et la Société;
- Bureau du directeur exécutif;
- Les Centres/Secteurs sont: Vancouver Island, BC Lower Mainland, BC Interior Mainland (Kelowna), Alberta (Edmonton), Saskatchewan, Winnipeg, Toronto, Ottawa, Montréal, Québec, Rimouski, Fredericton, Halifax et St. John's;
- Nombre de comités (voir Annexe I);
- Bénévoles;
- L'assemblée générale annuelle (AGA) est le véhicule qui permet de rapporter les progrès, proposer de nouvelles initiatives, revoir le budget et vérifier les finances de la SCMO, élire de nouveaux membres à la direction et proposer des changements à la constitution et aux règlements de la SCMO.

La présente structure organisationnelle a bien servi la SCMO, mais des changements sont suggérés. On s'entend pour dire que les deux titres 'Centres et Secteurs' sont redondants et qu'un seul devrait être utilisé. Aussi, certains des plus grands Centres comme Vancouver, Toronto et Montréal pourraient être sous-divisés afin de faciliter certaines rencontres. Dans ces Centres, on a noté un manque d'intérêt quant à l'organisation d'un autre séminaire. Ainsi, si l'organisation était plus petite, comme une seule université ou un seul établissement, elle pourrait organiser des activités ou des rencontres spécifiques d'intérêt sous la bannière de la SCMO.

Les responsabilités des membres actuels de l'Exécutif et du bureau exécutif sont bien partagées. Toutefois, en raison de l'expansion de la SCMO, le président et le directeur exécutif ont endossé plus de responsabilités que jamais auparavant. Il est maintenant courant pour le directeur exécutif de recevoir 100 courriels et plus par semaine et le président assume maintenant plus de responsabilités quant à la Fondation canadienne pour les sciences du climat et de l'atmosphère.

Puisque le bureau du directeur exécutif assume maintenant toutes les responsabilités de la gestion des affaires de la SCMO, dont certaines étaient données en sous-traitance, la SCMO a engagé un administrateur de bureau afin de gérer les finances de la Société. L'achat d'un nouveau logiciel de base de données permet aussi au bureau de mieux maintenir à jour les dossiers des membres, des abonnements et de la représentation aux comités. La direction et les politiques de la SCMO demeurent toujours des fonctions du Conseil et de l'Exécutif de la SCMO, et, en bout de ligne, de l'AGA.

Il est nécessaire de renforcer le comité exécutif avec des membres qui n'ont aucunes responsabilités spécifiques d'assignées, mais qui peuvent entreprendre des études approfondies lorsqu'elles leur sont assignées par l'Exécutif. Les conseillers généraux de la SCMO devraient assumer ce rôle. Présentement, ces derniers n'ont aucun rôle particulier, sauf celui de fournir leur expertise et d'assurer une plus grande représentation de la communauté lors des réunions du Conseil. La taille du Conseil est suffisamment grande, environ 30 membres, alors il est difficile de justifier le poste de conseiller général que par une plus grande représentation au Conseil. Les conseillers généraux seront mandatés pour des tâches spécifiques à court terme et devront régulièrement faire rapport des progrès lors des réunions de l'Exécutif et/ou du Conseil. Des rôles potentiels comprennent: assurer une représentation et une continuité lors des Congrès annuels, préparer les lignes directrices lors de la mise en place d'ateliers régionaux, peser le pour et le contre de partenariats de conférences et mener des études et des révisions approfondies sur des sujets d'intérêt à la Société. (L'Annexe II fournit une discussion de ces possibilités.)

Le manque d'implication de la communauté de la météorologie opérationnelle au sein de la SCMO cause

toujours problème. Même si la SCMO a débattu le problème pendant des années, aucun progrès n'a été réalisé afin d'attirer ces membres potentiels à la Société. Les membres de ce groupe seront invités à identifier leurs intérêts et les activités spécifiques qu'ils aimeraient voir à la SCMO.

À une époque, les «groupes d'intérêts spéciaux» étaient assez actifs à la SCMO; leur survie dépendait de l'enthousiasme du président organisateur. À leur départ, le suivi n'était pas fait et le groupe cessait d'exister. Puisque aucun nouveau groupe d'intérêts spéciaux n'a été créé au cours de dix dernières années, leur représentation sera éliminée des règlements.

De plus, la SCMO étudiera si elle peut mieux servir les besoins des étudiants. Un groupe *ad hoc* sera créé afin de voir aux problèmes et de recommander des activités, au besoin, au plus de celles déjà offertes, qui méritent d'être considérées. On encouragera les organisateurs des Congrès à ajouter une session informelle pour étudiants au Congrès annuel afin de discuter des problèmes comme les perspectives d'emplois, des allocations et des frais de scolarité, et de fournir un endroit où les étudiants peuvent se rencontrer et parler à des employeurs potentiels des milieux gouvernemental, universitaire et des affaires.

4. RESSOURCES HUMAINES ET FINANCIÈRES DE LA SCMO

La SCMO a été assez fructueuse dans sa recherche de bénévoles pour combler la présidence des Centres, mais pas autant pour la présidence des comités de sélection. En ce qui concerne les comités, nous avons demandé aux comités eux-mêmes de trouver des remplaçants à la présidence. Cette politique ne s'est pas prouvée très efficace, car plusieurs comités continuent à siéger sans président. Éventuellement, l'Exécutif doit trouver un président, sinon un membre de l'Exécutif doit combler le poste. Il va sans dire que ce n'est pas la solution. Une solution plus appropriée serait de mandater un conseiller général pour effectuer le suivi des membres des comités et de trouver des remplaçants potentiels, tel que suggéré à l'Annexe II.

La SCMO recherche des bénévoles prêts à assumer des rôles de leadership à même la Société et d'offrir leur aide dans une multitude de tâches. La SCMO ne peut fonctionner que de cette manière. Pour nous aider à y parvenir, il est essentiel que:

- La SCMO trouve du travail intéressant, stimulant et satisfaisant pour les bénévoles; et
- La SCMO améliore sa façon de remercier ses bénévoles.

La SCMO requiert aussi du financement pour atteindre ses objectifs. Les sommes serviront aux secteurs suivants:

- Aide au transport;
- Télécommunications;
- Lobbying;
- Budget pour les comités.

Le financement sera augmenté plus spécifiquement pour:

- Sommes additionnelles pour appuyer le bureau du directeur exécutif de la SCMO;
- Sommes versées aux comités pour plus de télécommunications et de rencontres;
- Plus d'aide au transport pour les efforts de lobbying;
- Contrats pour soutenir des groupes de travail; et
- Rencontres et ateliers spécialisés.

Un exposé de principe sur le financement et un plan d'implantation sont requis pour guider la Société sur la façon dont elle pourrait et devrait amasser des fonds, que ce soit à des fins de bienfaisance ou comme revenu général.

5. CONCLUSION ET RECOMMANDATION

La SCMO est la seule société au Canada préoccupée par l'atmosphère et l'océan, y compris les interactions avec l'hydrologie et les masses d'eau fraîche. La SCMO est fière de sa longue histoire parsemée de succès.

Pour aller de l'avant en ces temps stimulants et remplis de défis, la SCMO doit s'améliorer et parler de son avenir, dans le contexte de ce document. L'Exécutif de la SCMO et les conseillers généraux de la SCMO finaliseront ce document avec de l'aide d'autres personnes et, lorsqu'il sera approuvé par l'Exécutif et le Conseil, le présenteront à l'AGA afin d'être adopté, avec les changements nécessaires à la Constitution et aux règlements de la SCMO. Entre-temps, on donnera suite dans le court terme à plusieurs problèmes et principes soulignés dans le document de réflexion pour autant qu'ils soient soit réalisables, afin de répondre à certains des besoins identifiés.

Préparé et révisé par **Neil J. Campbell**.

Avec des contributions de **Ronald Stewart, Richard Stoddart, Dan Kelley** et d'autres.

Le 26 septembre 2003 à Ottawa.

ANNEXE 1

COMITÉS DE LA SCMO

Les comités suivants sont énumérés selon leur principale activité:

I. NOUVEAUX MEMBRES

Comité d'adhésion:

1. Encourager les membres potentiels à se joindre à la SCMO.
2. Appuyer l'Exécutif et le Conseil de la SCMO quant aux sujets portant sur l'adhésion, au besoin.

II. ÉDUCATION

Comité d'éducation publique et scolaire:

1. Améliorer l'éducation publique et scolaire au Canada et en faire la promotion.
2. Appuyer l'Exécutif et le Conseil de la SCMO quant aux sujets portant sur l'éducation publique et scolaire.

Comité d'éducation professionnelle et universitaire:

1. Améliorer l'éducation professionnelle et universitaire au Canada et en faire la promotion.
2. Appuyer l'Exécutif et le Conseil de la SCMO quant aux sujets portant sur l'éducation professionnelle et universitaire.

Comité de coordination des publications:

1. Établir des politiques quant au contenu, au style, au format et aux autres questions portant sur les publications de la SCMO.
2. Appuyer l'Exécutif et le Conseil de la SCMO quant aux sujets portant sur la publication, au besoin.

III. COMITÉS D'INTÉRÊTS SPÉCIAUX

Comité scientifique:

1. Charger des problèmes scientifiques d'importance à la Société.
2. Identifier les problèmes reliés à la recherche qui sont importants pour la communauté de recherche canadienne en météorologie et en océanographie et en faire la promotion.
3. Travailler au besoin avec les autres comités de la SCMO afin de présenter les problèmes scientifiques au gouvernement et au public.
4. Départager les candidats à la bourse d'études SCMO/Weather Research House afin d'attribuer la bourse au récipiendaire.
5. Appuyer l'Exécutif et le Conseil de la SCMO quant aux sujets scientifiques, au besoin.

Comité du secteur privé:

1. Charger des problèmes reliés au secteur privé d'importance pour la Société.
2. Défendre les intérêts, au besoin, en faveur du secteur

privé de la météorologie et de l'océanographie, ou en leur nom, lors d'activités et d'initiatives sociétales.

3. Appuyer l'Exécutif et le Conseil de la SCMO quant aux sujets portant sur le secteur privé, au besoin.

IV. SÉLECTIONS

Comité de mise en candidature:

1. Sélectionner la liste des candidats pour membres de l'Exécutif pour la prochaine année.

2. Appuyer l'Exécutif et le Conseil de la SCMO quant aux sujets administratifs, au besoin.

Comité des prix et honneurs:

1. Sélectionner des candidats pour les prix et honneurs qui seront remis lors du Congrès annuel de la SCMO.

2. Appuyer l'Exécutif et le Conseil de la SCMO quant aux sujets portant sur les prix et honneurs, au besoin.

Comité des membres émérites:

1. Sélectionner de nouveaux membres émérites de la SCMO qui sont annoncés lors du Congrès annuel de la SCMO.

2. Appuyer l'Exécutif et le Conseil de la SCMO quant aux sujets portant sur les membres émérites, au besoin.

V. NORMES

Comité d'agrémentation des présentateurs météo:

1. S'assurer que les qualifications des présentateurs météo canadiens agréés par la Société sont valides.

2. Encourager la mise en place et le maintien d'un haut niveau d'éthique professionnelle lors de la présentation de la météo au public.

3. Appuyer l'Exécutif et le Conseil de la SCMO quant aux sujets portant sur la diffusion, au besoin.

Comité d'accréditation:

1. Assurer l'atteinte et la reconnaissance d'un niveau de base des qualifications en météorologie et en océanographie pour quiconque offrant des services de consultation météorologique/océanographique.

2. Encourager la mise en place et le maintien d'un haut niveau de compétence professionnelle et de conseils éthiques et matures dans le domaine de la consultation météorologique ou océanographique.

3. Appuyer l'Exécutif et le Conseil de la SCMO quant aux sujets portant sur l'accréditation, au besoin.

VI. DÉFENSE DES INTÉRÊTS

Comité des relations extérieures:

1. Représenter les intérêts de la SCMO et présenter cette vision aux autres groupes et associations.

2. Agir à titre de groupe consultatif pour l'Exécutif et le Conseil lors de discussions de la SCMO avec d'autres groupes sur des sujets liés à la recherche et la science météorologiques et océanographiques canadiennes.

3. Appuyer l'Exécutif et le Conseil de la SCMO quant aux sujets portant sur les relations extérieures, au besoin.

ANNEXE II

RESPONSABILITÉS POTENTIELLES DES CONSEILLERS GÉNÉRAUX

Le directeur exécutif et le personnel du bureau du directeur exécutif travaillent déjà sur plusieurs des suggestions suivantes à divers niveaux. Ces suggestions servent à distribuer la charge de travail et à donner aux conseillers généraux un mandat spécifique. La liste qui suit détaille de nombreuses possibilités, qui n'ont pas à être implantées au cours d'une année en particulier. L'Exécutif de la SCMO décidera, à sa discrétion, l'intérêt et la priorité devant être assignés à ces responsabilités qui seront attribuer aux conseillers généraux sur une base annuelle.

1. Liaison à l'extérieure de la CMOS

Un conseiller général désigné devrait suivre et rapporter les intérêts des organisations reliées, comme la FCACS, la Société royale, l'UGC, le PFST, l'ICSU et d'autres, ainsi qu'assurer des liens avec ces dernières. L'emphase devrait être sur l'élaboration de projets conjoints, les évaluations et politiques coordonnées couvrant des groupes reliés et l'identification de programmes de sensibilisation. La liaison avec ces groupes n'a pas à être assignée à un seul conseiller général; il existe suffisamment de différences entre ces groupes pour justifier l'intérêt et l'attention de plusieurs personnes.

2. Liaison à même la SCMO

Plusieurs organismes possèdent des comités permanents sur les questions administratives afin de réviser et recommander des actions, sur une base continue. Présentement, la SCMO ne discute en profondeur de ces sujets que lors des réunions du Conseil et des AGA, toujours très chargées. Il est possible de créer à la SCMO plusieurs comités permanents, ressemblant à ceux de nos sociétés sœurs, comme pour les finances et les investissements, les publications, les communications et d'autres au besoin.

2a. Un comité des finances et des investissements, composé du trésorier de la SCMO, de l'administrateur de bureau de la SCMO et d'un conseiller général, analyserait les tendances de revenus et de dépenses, évaluerait les frais généraux et les frais de soutien nécessaire, déterminerait les investissements et le passif, identifierait de nouvelles initiatives qui nécessiteraient des campagnes de financement, réviserait les soumissions de vérificateurs potentiels pour la SCMO, etc.

2b. Il existe déjà à la SCMO un comité des publications, mais il ne se rencontre qu'une seule fois par année. Un comité des publications, composé du directeur des publications de la SCMO, du webmestre de la SCMO, du rédacteur

du Bulletin de la SCMO, des rédacteurs de A/O et d'un conseiller général, agirait à titre de comité de rétroaction concernant les changements/améliorations/révisions à apporter à toutes les publications de la SCMO, y compris de possibles nouvelles initiatives.

2c. Un comité des communications serait composé du directeur exécutif de la SCMO, du directeur des publications de la SCMO et d'un conseiller général. Il serait aussi composé du président du comité organisateur local du Congrès de cette année là et du président du comité scientifique. La SCMO entreprend un grand nombre d'activités importantes qui pourraient être publicisées par des communiqués de presse et d'autres activités de sensibilisation. Nous devons publier, sinon nous ne nous ferons jamais connaître et ne serons jamais consultés. Des communiqués de presse portant, entre autres, sur les énoncés de politique de la SCMO ou notre réaction aux initiatives gouvernementales au sujet des réductions ou améliorations aux programmes, les récipiendaires de grands prix, la nomination de membres émérites, la tournée du conférencier itinérant permettraient de rehausser l'image de la SCMO. Un comité des communications serait chargé d'évaluer la préparation de dépliants sur la SCMO et ses initiatives, d'affiches, de documentation de relations publiques, etc.

3. Planification stratégique

Il pourrait être possible de donner aux conseillers généraux, sous l'orientation du directeur exécutif, la fonction d'analyser et préparer des déclarations de principe spécifiques (document de réflexion de la SCMO), de réviser et la modifier des règlements, d'évaluer la prospérité ou non de nos centres locaux et la façon de les aider.

4. Programmes scientifiques des Congrès

Habituellement, le Conseil contribue peu aux programmes scientifiques des Congrès. Le Conseil choisit l'emplacement des Congrès et approuve les présidents des comités organisateurs locaux. D'un Congrès à l'autre, une certaine continuité s'installe dans les thèmes des sessions, en raison de l'intérêt évident pour la réussite du programme, souvent Un conseiller général, mandaté pour établir la vision des Congrès trois à cinq années à l'avance, pourrait préparer le terrain pour l'organisation des futurs Congrès. Il existe de nombreux programmes dont les plans s'échelonnent sur trois à cinq ans, comme c'est le cas pour la plupart des subventions de réseau de la FCSCA et du CRSNG. Si le conseiller général ou tout autre mécanisme approprié de la SCMO pavait le chemin tôt dans le processus, il pourrait persuader d'autres organisations de tenir des séances intérimaires ou de conclusion lors d'un Congrès de la SCMO. De plus, une certaine continuité est

requise à même le Conseil concernant les sujets d'importance qui ont été initiés, mais qui doivent être davantage appuyer pour qu'ils prennent leur envol et prospèrent lors des futurs Congrès, comme la journée des enseignants, les femmes en météorologie et en océanographie, etc. Ce genre d'intervention lors des délibérations du Conseil permettrait de prévoir des activités à long terme qui maximiseraient les contributions et les bénéfices futurs de la Société. Les comités locaux du programme scientifique apprécieraient grandement toutes suggestions et planification supplémentaire en ce qui concerne leurs programmes spécifiques.

5. Numéros spéciaux de A/O

Les numéros spéciaux de A/O sur des thèmes spécifiques (eaux du Nord, MAGS, etc.) sont grandement bénéfiques pour la science au Canada. Ils permettent de mettre en rapport dans un même numéro les résultats des recherches. Ils mettent en relief les réalisations et comptabilisent tous les efforts consacrés aux recherches. Ce sont des volumes de prestige pour l'information publique et la SCMO. On publie habituellement ces numéros spéciaux en raison de l'intérêt porté à un sujet d'information publique ou de la prévoyance d'un éditeur de A/O; toutefois, ces résultats sont parfois, et souvent malheureusement, publiées ailleurs. Un conseiller général, ou tout autre mécanisme de la SCMO tel qu'un mandat spécifique accordé au comité des publications, pourrait planifier trois à cinq années à l'avance afin d'encourager les grands programmes canadiens ou les sous-groupes de programmes internationaux, à publier leurs résultats dans les numéros spéciaux de A/O. Comme c'est le cas pour la planification à long terme des Congrès, la SCMO devrait avoir une approche proactive et une vision à long terme afin d'assurer que les numéros spéciaux seront publiés dans l'avenir.

6. Représentation aux comités de la SCMO.

Un conseiller général serait en charge d'assurer, en collaboration avec les présidents de tous les comités, la représentation des membres dans tous les comités de la SCMO afin de régulariser leur nombre, ainsi que leur mandat, la rotation, etc. Ainsi, la SCMO aurait un mécanisme proactif qui permettrait d'assurer la représentation et la présidence nécessaires dans tous les comités. Certains comités de la SCMO s'occupent présentement adéquatement de cette tâche, tandis que d'autres ne le font pas. Un conseiller général devrait s'assurer que toutes les mises en candidatures sont traitées uniformément dans tous les comités et qu'un non-membre du comité (un conseiller général) fait partie du processus de sélection des membres..

Hurricane Juan – A personal story

by Susan Woodbury², ACM

There are thousands of Halifax Hurricane Juan stories – this is one of them.

Hurricane Juan hit Halifax Sunday night, September 28th, two days before the planned closure of the Seimac Limited Meteorology Division (see *CMOS Bulletin SCMO*, Vol.31, No.5, p.142), a weather office established 13 years ago and that I have managed ever since. A double whammy for me! Even though I followed the progress of the hurricane on a daily basis and should have known better, I wasn't prepared personally for what happened.

I fell asleep early Sunday evening and woke to hear my son closing the windows in the attic. The rain was beating down, and the noise of the wind was like a freight train howling past that kept coming and coming and coming. Against my stated objections, he decided to go outside to put the car in the garage. The power went out. He cleared a path for the car and manoeuvered it into the garage while battling the force of the wind. Fifteen minutes later a big branch fell right where the car had been! My anxiety for my son's safety was replaced by relief at the car's rescue.

While my 27-year-old daughter slept through the entire event, my son and I stayed awake. Terrorized, we roamed the house with flashlights while listening to CBC's minute-by-minute reports on a battery-operated radio. The sky was lit by the explosions of transformers. Around 2:30 am, the house shook and we heard a loud crash. We could see traffic (yes, even that late) manoeuvering around something on the road. We could just make out that the top of one of the 75-foot blue spruces at the front of the house had wedged in a large maple tree with the power lines pulled taught amidst them.

While discussing the storm at midnight with Seimac's duty forecaster, I learned that when the power had gone off the backup generator had not sprung to life. He promised NOT go outside to investigate. (Good decision!) At 2 am, when the wind had lessened somewhat, he made the dangerous trek around the building to find that the generator battery had blown up!

It is nerve wracking, to say the least, to be a weather supplier without power during a storm with the knowledge that clients are relying on your service more than ever. We had prided ourselves in emergency preparedness. But even the Environment Canada Maritimes Weather Centre, which is on the 19th floor of an office tower overlooking the harbour, had to evacuate the building for

a couple of hours during the height of the storm. Fortunately, we obtained the cooperation of our long-standing colleagues at AMEC Earth and Environmental, a private sector weather company in Newfoundland, for hourly updates and briefings until the power was restored on Monday. Seimac continued to serve its customers by phone.

The eye of the storm passed in the wee hours of the morning. By dawn the storm had abated -- the silence deafening.

Monday, September 29th dawned with heavy showers but no wind. Our phone was dead. Fallen trees made it impossible to get to work although I desperately wanted to assess the damage there. My son walked around the neighbourhood clicking pictures with his camera. Mature trees crisscrossed all the way down the neighbouring street with power lines draped around them. A block away, a power pole was split by the weight of a century old maple tree. All around the city, thousands of majestic trees are uprooted, some leaning against houses or crushing cars.

Monday afternoon, our street took on a carnival atmosphere. Although a state of emergency was in effect to allow emergency vehicles the right of way, general traffic was very heavy. The sun came out making it hot and muggy. People walked up and down the street with their kids, dogs and strollers. Many stopped to take pictures of our tree or to comment on it.

We stayed close to the house all day although I did make one attempt to get to work. I drove only a couple of blocks. Overwhelmed by the danger and the damage, I immediately returned home. The landmarks of my youth had been uprooted.

Hurricane Juan was the worst storm to hit Nova Scotia and Prince Edward Island in forty years!

The food in the fridge started to get warm. We drank milk, ate what would spoil first and played Scrabble. At suppertime our neighbour cooked some of our food on the BBQ, and I fed eight people by candlelight!

² Seimac's former Meteorology Division Manager and Chair of the CMOS Private Sector Committee.

I returned to work early Tuesday morning. It was 17°C and sunny with a feeling of fall in the air. The atmosphere was surreal. The windows of the Seimac building were covered with tree debris - it looked like the leaves were shredded and plastered on the windows and sides of the building. Damage at work luckily turned out to be comparatively minor, except for the generator.

With power restored, it was business as usual. Except that this was the last day of Seimac Limited's weather forecasting service: the company had made a corporate decision to exit the meteorological business. Providing nineteen years of service with the same company in this day and age is a major accomplishment, I know. With these changes in my professional life and the ruined neighbourhoods, I felt bereft.

[Hurricane Juan left behind] trees ripped out at the roots, roads blocked by debris, roofs extracted, parks destroyed, buildings damaged and pleasure boats tossed up onto the shore like bathtub toys. About 300,000 people lost power, and many didn't regain it for days. Two people died when their vehicles were crushed by falling trees, and a mother and her two children perished in a fire [...] that may have been started by a lit candle. The Coast Guard's search for two fishermen missing near the coast of Caraquet, N.B., was called off....

Chris Lambie, Halifax, Time Magazine, October 13, 2003, p.16

As the days wore on, still the power stayed off at home. We removed the food from the freezer and discarded most of it. Thankfully home insurance will cover the replacement cost. Thursday afternoon the cable company restored phone service. We ate dinners with family who had power. After dark we wended our way home through the darkened streets of the downtown core and carefully avoided downed trees and power lines that were still littering the road. Stars in the night sky shone as brightly as in the countryside, unimpeded by the usual lights of the city.

Saturday, the newspaper headline exclaimed: "Juan-time Sunday shopping - No restrictions this weekend due to 'public emergency'." Good news for those with power, but we still didn't have it. Frustration with the limited coverage of the antenna on my cell phone hit a nerve, so I purchased a hardware upgrade. After six days the house had become very drafty because of cool nighttime temperatures. Doing crossword puzzles by flashlight lost its appeal.

On Sunday the action outside our house began at 7:30 am when tree pruners finally arrived. By 10 am the fallen trees were gone and the power lines were back in position. That afternoon I hired a logger to climb the broken spruce tree and cut it down. When I counted the tree rings, I discovered the spruce had been 72 years old! At 5:20 pm we had power --- seven hours short of one full week in the dark!

It is amazing how much we depend on power and how fast we reacclimate ourselves to its existence. TV, fish tank, washer, dryer, dishwasher, computer, and phone were in heavy use just one hour after reconnection.

On Monday, October 6th, many thousands of people were still without power. Our personal drama drew to a close with the removal of tree branches from the side of the road by the military.

Lessons learned: I intend to learn how to prepare for natural disasters, purchase the proper supplies and teach my family emergency preparedness. On a professional level, Environment Canada must be commended that weather forecasts and warnings were accurate and were disseminated in plenty of time. However, apart from the Weather Network, the media and emergency preparedness organizations could have provided much more background information to reach the whole community and teach how to prepare for this natural disaster. It is my hope that the entire meteorological community, both public and private sectors, will develop outreach tools to train the media, emergency organizations and the general public in the interpretation of meteorological products that impact on their daily lives. Being prepared isn't just a Scout motto. I am committed to building better partnerships among the appropriate organizations so that we all can be better prepared to weather the force of nature.



Pictured is Cliff Coveyduc (left) of "NS YES" receiving a cheque for \$300.00 from CMOS Halifax Centre Chairperson Teresa Canavan.

CMOS helps send off young scientists to the nationals

Science Fairs have come a long way. In late April the Bedford Institute of Oceanography (BIO) was the place to be as Nova Scotia regional science fair winners gathered to display their projects in preparation for the national competition. The projects were creative, innovative, scientific and just downright amazing. Topics included improving X-RAYS for terrorist detection at airports (from a grade 9 student who had no formal physics training yet) to creative solutions for eliminating toxic waste.

The group of young future scientists made up Team Nova Scotia and they were busy getting ready to represent the province in the Canada-Wide Science Fair held in Calgary, Alberta. The Halifax Centre of CMOS provided \$300.00 to help host the event at BIO and to help the team in its efforts at the national level.

The event was held by the Nova Scotia Youth Experiences in Science Foundation (NS YES), a non-profit organization, whose mission is to initiate, promote, and support science experiences for Nova Scotia youth and to celebrate the accomplishments of its young scientists.

*Trevor Adams
CMOS Halifax Centre Member*

Notice – Seimac Limited

Effective September 30, 2003, Seimac Limited closed its Meteorology Division and its 24/7 weather office, and, as a result, Seimac Weather Source is no longer providing meteorological services. This action has been precipitated by the change in ownership of Seimac Limited a couple of years ago and a decision to concentrate on core business areas in rugged, remote, reliable radio development and manufacture.

Seimac has been pleased to provide support to a number of CMOS initiatives, committees and scholarships.

One of Seimac's senior meteorologists, Malcolm (Mac) MacLeod, has started his own company called Scotia Weather Services Incorporated. This company has purchased the assets of the Seimac Meteorology Division and will be operating from the weather office effective October 1, 2003 on the Seimac premises at 271 Brownlow Avenue, Dartmouth, NS B3B 1W6. Some of Seimac's meteorological team will be working for Scotia Weather Services. Seimac is pleased that Mr. MacLeod has opted to establish his own company and supports his entrepreneurial efforts.

Seimac's former Meteorology Division Manager, Susan Woodbury, will continue to chair the CMOS Private Sector Committee.

Searching for a "Weather Columnist"

A little background on this request - The Canadian weather column in "Weatherwise" magazine has been going for maybe 30 years. Morley Thomas wrote the piece in the early years. I took it over for nearly a decade and in recent years it has been passed from Tom Gullett to Malcolm Geast and most recently to Gary Beaney (there may have been others). In passing the responsibility around over the years, consideration was given to ending the column, but the editors said readers of "Weatherwise" enjoyed the regular feature. When Gary wanted to give it up, I endeavoured to find a replacement volunteer, so far without success. I still feel a retired meteorologist-climatologist would be the way of continuing the effort. Through this note, I will ask CMOS if they might be able to find someone who would enjoy the challenge. The writer gets a by-line, and probably a free copy of "Weatherwise". It might be a way that CMOS could get some acknowledgement in Weatherwise.

*David Phillips
Climatologist,
Downsview, Ontario.*

Report on Attendance at the AMS/NOAA "Project Atmosphere Workshop 2003"

Project Atmosphere is a yearly Workshop for Geography teachers who teach Meteorology as part of their curriculum. The American Meteorological Society, which holds the Workshop, has been inviting CMOS for a number of years to send a Canadian Geography teacher as a participant. The teacher is selected and financially assisted jointly by CMOS and the Canadian Council for Geographic Education.



Jim Pederson with two teachers from South Africa, Princess and Rozelle

Participating in the ten day "Project Atmosphere" held at the U.S. National Weather Training Center in Kansas City from July 19 to August 1 was an incredible experience. To learn first hand from the leading weather experts at NOAA and the AMS was certainly a privilege.

The schedule for the project was a grueling one; classes started at 7:45 AM and ended at 4:30 PM with one hour for lunch. There was no such thing as down time in that schedule, every minute was utilized to the utmost. During the project we learned everything you could ever want to know about weather, and then some. Not only did we learn the nitty-gritty about weather but we also worked through lessons that we could use to teach weather to fellow teachers and to our students. The variety and quantity of lesson plans and aids that we left with was immense.

Since the main goal of the project is for participants to assist fellow teachers in the teaching of weather, the materials and experience we gained will allow us to encourage and facilitate the teaching of weather by more teachers. Weather can be intimidating to teach due to the complexity and vast amount of material involved; the materials provided do a marvelous job of demystifying and simplifying the core concepts. The materials developed are geared to the USA; however, the CMOS has adapted the modules for Canadian content. In many cases the Canadian modules have improved upon the original modules. This assessment of the CMOS materials comes from Dr. Ira Geer, the Education Program Director of the American Meteorological Society and Workshop Co-Director.

As one of twenty-two participants (two from South Africa, myself from Canada and the other nineteen from various locations in the USA), I was able to compare experiences and share ideas with educators from a variety of

backgrounds. This was arguably the most valuable aspect of the project as it has rekindled the desire to do more in furthering the teaching of weather in our schools. The wealth of knowledge, strategies, experiences, and insights that we shared would be impossible to document. The combination of physical materials, experience gained, contacts made, and networking have combined to make the thirteen days of "Project Atmosphere" the most valuable educational fortnight in my twenty-five years of teaching.

I would like to thank CMOS for their support in making my participation in "Project Atmosphere" possible. It was the experience of a lifetime! If I can be of assistance to others, in any capacity, I would be pleased to do so.

*Jim Pedersson
Kamloops, B.C.*

The CMOS Tour Speaker Program

Events in recent years suggest that a review and re-discussion of the CMOS Tour Speaker program would be useful. There is continuing difficulty in finding suitable speakers, and the level of interest in some Centres has not met expectations. The former may reflect the increased workload of active government scientists: this group has generally been the source of speakers. Interested members are invited to contact the CMOS executive with their views and suggestions for the future of the program. Discussion within Centre/Chapter meetings could also be fruitful.

The Tour Speaker Program is one of CMOS's most longstanding and well-regarded programs, which provides an all-Society component to the activity year of the Society's Centres. The Society is fortunate in enjoying a long sequence of distinguished speakers, and to receive external support for the associated traveling expenses. The current format includes an alternation in annual topics between the fields of meteorology and oceanography. It is considered desirable that presentations be in both official languages (three centres are considered to be French-language). For practical considerations – essentially the availability of speakers – some presentations have been in English with French-language overheads.

Over the last two years the CMOS Executive took some steps to improve the program. There is now provision for an honorarium for the speaker, intended primarily for retired members. The view remains that the cost of the speaker's time is to be born by his/her employer – usually the Government of Canada. The Society will also provide more formal recognition of the Speaker's contribution, likely in the form of a medal, as well as listing on the Society's website.

Some possible issues for your thoughts:

- What is the target audience for the Tour Speaker? Is it a meeting of Centre members, or is it a Society publicity event, targeting students?
- Is the annual alternation between oceanography / meteorology appropriate?
- Is the honorarium approach sufficient and appropriate?
- Currently, the model is that the Speaker visits every Centre/Chapter. However, this leads to "chasing" centres for a response; and at least one centre has expressed little interest in oceanographic topics.

■ Is the delivery appropriate? As it stands, the model used is one presentation in a small centre, and also one in a large Centre such as Toronto, whose members are dispersed over a very large area.

■ In a university or research centre environment, seminars are quite frequent events. Should there be consideration of what is a "saturated environment"?

Please direct your input to the CMOS Corresponding Secretary, Ms. Bridget Thomas, preferably by e-mail at bridget.thomas@ec.gc.ca

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(* Credit must be attributed)

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Invitation à présenter des communications
38^e Congrès annuel de la SCMO
Edmonton, Alberta, Canada
du 31 mai au 3 juin 2004

La dimension humaine de la météo et du climat

Le Centre de l'Alberta de la Société canadienne de météorologie et d'océanographie (SCMO) sera l'hôte du 38^e Congrès annuel de la SCMO qui se tiendra à l'Hôtel *Fantasyland* d'Edmonton, Alberta, Canada du 31 mai au 3 juin 2004. Les sciences sont plus que jamais axées sur les impacts du changement anthropique à la météo et au climat - par conséquent le thème central du Congrès 2004 portera sur "La dimension humaine de la météo et du climat".

Nous désirons tout particulièrement recevoir des articles reliés au thème du Congrès. Cependant, nous vous invitons à soumettre des articles dans les domaines-clefs tels que : *le changement climatique ; la météorologie aéronautique ; les processus des latitudes septentrionales ; le temps violent et les conditions météorologiques dangereuses ; les océans dans les régions septentrionales (Arctique, Atlantique et Pacifique) et leurs liaisons ; les questions reliées à la sécheresse et à l'eau ; et la télédétection et les nouvelles technologies.* Plusieurs ateliers sont planifiés conjointement avec le 38^e Congrès et éventuellement on souhaite en ajouter sur les programmes MAGS (Étude GEWEX sur le bassin du Mackenzie) et CWRP (Programme canadien de recherche en météorologie). Il y aura aussi des séances traditionnelles de la SCMO reliées à d'autres domaines de la météorologie et de l'océanographie, et on s'attend encore une fois de tenir au Congrès la Journée des enseignants.

Nous vous demandons de planifier votre présence au Congrès de la SCMO, étant donné que celui-ci demeure de façon primordiale notre rencontre annuelle à la fois pour les chercheurs, les météorologistes opérationnels et les océanographes, auxquels se joignent des hydrologistes.

La date limite pour soumettre les résumés est **vendredi le 27 février 2004**. Ils doivent être de 400 mots ou moins, incluant le titre, l'auteur ou les auteurs, l'affiliation, la ville et l'adresse électronique de l'auteur principal (sans diagramme). On doit acheminer les résumés par voie électronique en anglais ou en français au site WEB du Congrès: <http://www.scmo.ca>. Les auteurs doivent indiquer leur préférence pour un thème et pour le format de la présentation, soit orale ou par affiche. La soumission de résumés par des étudiants diplômés est notamment encouragée.

On peut contacter le Président du Comité du programme scientifique pour toute demande de renseignements concernant les séances scientifiques. Pour des informations additionnelles sur le Congrès, visitez le site WEB: <http://www.scmo.ca> ou contactez le Président du Comité local d'organisation: Brian.Paruk@ec.gc.ca. Pour des renseignements sur l'exposition commerciale, prière de s'adresser à: Oscar.Koren@ec.gc.ca.

Geoff Strong,
Président, Comité du Programme Scientifique (CPS),
Congrès SCMO 2004
241 Hollands Drive, 52450 RR 222
Ardrossan, Alberta,
T8E 2G3, Canada
Tél. : (780) 922-0665 ; Fax. : (780) 922-0678
Courriel : geoff.strong@shaw.ca

Le mois le plus chaud!

Washington (AP) - Le mois dernier a été le mois de septembre le plus chaud jamais enregistré sur l'ensemble de la planète, ont annoncé les météorologues américains. La température moyenne sur la planète a été de quinze (15) degrés centigrades, selon Jay Lawrimore du Centre national de données sur le climat. C'est 0,6 degré de plus que la moyenne, selon des relevés qui remontent à 1880. Le second mois de septembre le plus chaud était celui de 1997, et le troisième, celui de 1998. Les températures ont été très chaudes dans tout le Canada, et inhabituellement élevées dans une grande partie de l'Asie et de l'Europe.

Source: Le Devoir, 19 octobre 2003, p. A4.

CALL for PAPERS

CMOS 38th Annual Congress Edmonton, Alberta, Canada 31 May – 03 June 2004

Human dimension of Weather and Climate

The Alberta Centre of the Canadian Meteorological and Oceanographic Society (CMOS) will host the 38th annual CMOS Congress at the *Fantasyland Hotel* in Edmonton, Alberta, Canada from 31 May – 03 June 2004. Our sciences are more focused than ever on the impacts of anthropogenic changes to our weather and climate – hence the overall theme of the 2004 Congress is “Human Dimensions of Weather and Climate”.

We particularly encourage papers directed towards the Congress theme, while we are also soliciting submissions in key focus areas, including *Climate Change, Aviation Meteorology, High Latitude Processes, Severe and Hazardous Weather, The Northern Oceans (Arctic, Atlantic and Pacific) and their Linkages, Drought and Water issues, and Remote Sensing and New Technologies*. Several workshops are planned in conjunction with the 38th Congress, possibly including MAGS and CWRP. There will also be traditional CMOS sessions in other aspects of meteorology and oceanography, and we are once again encouraging a special Teachers' Day at Congress.

The CMOS Congress is our primary annual meeting for both research and operational meteorologists and oceanographers, and is also well attended by hydrologists, so please plan to be represented this coming year at Congress.

The deadline for submission of abstracts is **Friday, 27 February, 2004**. Abstracts should be no more than 400 words, including title, author(s), affiliation, city, and e-mail address of the lead author, with no figures. Abstracts should be submitted electronically in English or French on the Congress web site at <http://www.cmos.ca>. Authors should indicate their preference of session themes, and whether oral or poster presentation is preferred. Submissions from graduate students are especially encouraged.

Contact the Chair of the Scientific Program Committee for enquiries regarding scientific sessions. For other information on the Congress, go to <http://www.cmos.ca> or contact Local Arrangements Committee (LAC) chair, Brian.Paruk@ec.gc.ca. For information on commercial exhibit opportunities, contact Oscar.Koren@ec.gc.ca.

Geoff Strong
Chair, Scientific Program Committee (SPC)
CMOS 2004 Congress
241 Hollands Drive, 52450 RR 222
Ardrossan, AB, T8E 2G3, Canada
PH: (780) 922-0665; FAX: (780) 922-0678
e-mail: geoff.strong@shaw.ca

About the Ozone Hole Organization

The Ozone Hole Organization is a non-profit group dedicated to preventing the destruction of the Ozone Layer. Our organization is internationally known and respected and it collaborates with scientists that are leaders in the field of ozone research on a global level.

The Ozone Hole Organization will work with individuals, government agencies and corporations in developing and promoting products that are environmentally friendly.

The Organization will develop and implement an informational advertising campaign that will highlight the importance of ozone preservation as well as warning of the dangers of exposure to ultra-violet rays.

The Organization will work with elected officials globally to provide information as well as solutions. It will work with

the United Nations and the Environmental Protection Agency to have the most up-to-date information and solutions available to the global public. It will develop an international network that will disseminate information and solutions.

The Organization is currently initiating these projects on a national as well as global level. It will maintain an informational website with historical and daily information concerning the ozone hole. The website provides data and information to a global audience. Daily images of the formation of this year's ozone hole are posted on the following page:

<http://www.theozonehole.com/ozonehole2003.htm>

*Charles Welch,
Theozonehole.com; Tel: (570) 807-0821*

POLICY STATEMENT

Sound Science Can Lead to Improved Forecasting and Mitigation of Natural Hazards



The Canadian Meteorological and Oceanographic Society (CMOS) is the non-profit scientific organization representing Canadian atmospheric and oceanic scientists and professionals. Since 1963, the goal of CMOS has been the advancement of meteorology and oceanography in Canada. CMOS has a special committee charged with the examination of timely scientific issues.

The Canadian Meteorological and Oceanographic Society recognizes that natural hazards (for example, floods, hurricanes, tornadoes, ice storms, tsunamis, storm surges, avalanches) are geophysical phenomena that are an inherent part of our dynamic Earth system. They can cause deaths, immense human suffering, material and ecosystem damage when they hit vulnerable communities. Recent

examples in Canada are droughts over the Canadian prairies in summer 2002, the 1998 ice storm in Québec and eastern Ontario (the single most costly natural hazard to date in Canada with an estimated economic impact of over \$5 billion), the 1996 Saguenay and 1997 Red River floods in Québec and Manitoba respectively, the PEI storm surge of January 2000, the Pine Lake tornado in Alberta in summer 2000, and the 1982 Ocean Ranger storm which precipitated the loss of the offshore drilling platform off Newfoundland. A widespread scientific consensus is emerging that the frequency and characteristics of these hazards may be altered in the decades to come as the climate changes.

CMOS scientists can provide, through an understanding of the physical causes of natural hazards, a strong basis for developing effective strategies to reduce their impact in part through more accurate predictions with longer lead times. The scientific effort of monitoring, analysis and prediction has to be coupled with issues such as emergency preparedness, dissemination of warnings, public education and awareness, post-disaster recovery and building design codes. To reduce the adverse effects of natural hazards, it is thus important to have a coordinated approach involving scientists, government ministries, policy makers, the private sector and the public.

CMOS recommends the enhancement of Canadian capabilities to warn and inform Canadians about impending natural hazards and their characteristics, continuing research on the physical causes of these hazards, dissemination of relevant results to decision makers and the public, and multidisciplinary efforts to implement effective coping strategies in Canada and abroad.

April 2003

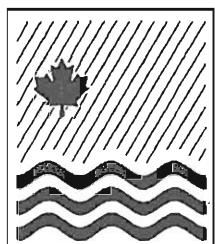
Other CMOS Science Policy Statements

Policy Statement on Weather Modification	February 2002	<i>CMOS Bulletin SCMO</i> , Vol.30, No.3, p.95
Policy Statement on Climate Change	February 2002	<i>CMOS Bulletin SCMO</i> , Vol.30, No.3, p.93
Policy Statement on the Kyoto Protocol	June 2003	<i>CMOS Bulletin SCMO</i> , Vol.31, No.4, p.119

Policy Statements are also available on the web at: www.cmos.ca

ÉNONCÉ de POLITIQUE

Les principes scientifiques objectifs peuvent améliorer les prévisions et atténuer les risques naturels



La Société canadienne de météorologie et d'océanographie (SCMO) est un organisme scientifique à but non lucratif qui représente les professionnels et scientifiques atmosphériques et océaniques canadiens. Depuis 1963, l'objectif de la SCMO est l'avancement de la météorologie et de l'océanographie au Canada. La SCMO possède un comité spécial chargé d'examiner les questions scientifiques en temps opportun.

La Société canadienne de météorologie et d'océanographie reconnaît que les risques naturels (par exemple : inondations, ouragans, tornades, tempêtes de verglas, tsunamis, ondes de tempête, avalanches) sont des phénomènes géophysiques qui font partie inhérente de notre système terrestre dynamique. Ils peuvent causer la mort, d'immenses souffrances humaines, des dommages matériels et aux écosystèmes lorsqu'ils s'abattent sur des communautés vulnérables. Des exemples récents au Canada sont la sécheresse des Prairies canadiennes durant l'été de 2002, la tempête de verglas au Québec et dans l'est de l'Ontario en 1998 (le risque naturel le plus coûteux à ce jour au Canada avec un impact économique estimé à plus de 5 milliards de dollars), l'inondation en 1996 du Saguenay au Québec et en 1997 de la rivière Rouge au Manitoba, l'onde de tempête à l'I.-P.-É. en janvier 2000, la tornade à Pine Lake en Alberta lors de l'été 2000 et la tempête en 1982 à Ocean Ranger qui a entraîné la perte de la plate-forme de forage en mer près de Terre-Neuve. L'émergence d'un consensus scientifique général veut que la fréquence et les caractéristiques de ces risques pourraient être altérés dans les décennies à venir avec les changements climatiques.

Les scientifiques de la SCMO peuvent fournir, par leur compréhension des causes physiques des risques naturels, une base solide pour le développement de stratégies efficaces qui permettront de réduire leur impact, en partie par des prévisions plus précises avec des délais plus longs. L'effort scientifique de vérification, d'analyse et de prévision doit être jumelé à d'autres considérations comme la protection civile, la transmission des avertissements, l'éducation et la sensibilisation du public, la récupération suite à une catastrophe et les codes de conception des bâtiments. Afin de réduire les effets adverses des risques naturels, il est donc important d'offrir une approche coordonnée comprenant des scientifiques, des ministères gouvernementaux, des décisionnaires, le secteur privé et le public.

La SCMO recommande l'amélioration des capacités canadiennes pour aviser et informer les Canadiens au sujet des risques naturels imminents et de leurs caractéristiques, la continuation de la recherche sur les causes physiques de ces risques, la diffusion des résultats pertinents aux décideurs et au public, ainsi que des efforts multidisciplinaires afin d'implanter des stratégies d'adaptation efficaces au Canada et à l'étranger.

Avril 2003

Autres déclarations scientifiques de principe de la SCMO

Déclaration de principe sur la modification du temps	Février 2002	<i>CMOS Bulletin SCMO</i> , Vol.30, No.3, p.96
Déclaration de principe sur le changement climatique	Février 2002	<i>CMOS Bulletin SCMO</i> , Vol.30, No.3, p.94
Déclaration de principe sur le protocole de Kyoto	Juin 2003	<i>CMOS Bulletin SCMO</i> , Vol.31, No.4, p.118

Les déclarations scientifiques de principe sont également disponibles sur la toile à: www.scmo.ca

The CMOS Position of Executive Director

Applications are invited to fill the part-time position of Executive Director of CMOS which will become vacant on June 30, 2004. The position is collocated with the national office of the Society in Ottawa, Ontario. Remuneration is negotiable.

Under the by-laws, the Executive Director shall:

1. conduct such business and correspondence of the Society as may be directed by Council or by the President;
2. be responsible for the proper functioning of the CMOS headquarters office;
3. serve as an ex-officio non-voting member of Council and all Committees established by Council;
4. prepare and keep current the files and documents of the Society as established by recorded Council action;
5. have custody of the Corporate Seal of the Society and, when required, shall certify documents issued by the Society.

Requirements:

1. Masters level degree in meteorology or oceanography or related field;
2. Three or more years' experience in managing meteorological/oceanographic programs at a regional or national level;
3. Experience and excellence in written and oral communication in English over a broad range of technical, policy, managerial and administrative issues. Communication capabilities in French are desirable;
4. Enhanced security classification.

Duties:

1. Responsible for the administration of the business affairs of the Society, by:

- ensuring the proper organization and operation of the CMOS Business Office with regard to the administration of the financial business and the maintenance of the correspondence, meeting and membership records of the Society;
- serving as the signing and reporting authority on behalf of the Society for contracts, grants and agreements;
- authorizing and approving payments of all invoices less than \$2000 and seeking approval by the Executive of payments in excess of \$2,000;
- arranging for the annual audit; and
- preparing and submitting the appropriate reports to Canada Customs and Revenue Agency to maintain the Society's Charitable Organization Status.

2. Assists the Council and the Executive Board in the Management of the Society, by:

- serving as ex-officio on the Executive Board, the Council and all Committees of the Society;
- updating and maintaining documents to guide the normal operations of the Society such as "CMOS Annual Cycle of Events" and "Guidelines for CMOS Annual Congresses".

Applications should be submitted to the:

Office of the Executive Director
Canadian Meteorological and Oceanographic Society
PO Box / CP 3211
Station D
Ottawa ON K1P 6H7

Poste de Directeur exécutif à la SCMO

On désire recevoir des demandes d'emploi pour le poste, à temps partiel, de Directeur exécutif à la SCMO qui sera vacant le 30 juin 2004. Le bureau du poste de Directeur exécutif est adjacent avec le bureau national de la Société à Ottawa, Ontario. La rémunération est négociable.

Selon les règlements, le Directeur exécutif devra :

1. s'occuper du courrier et des affaires de la Société qui lui sont désignés par le Conseil d'administration ou le Président;
2. être responsable du bon fonctionnement du bureau de l'administration centrale de la SCMO;
3. agir comme membre, à titre d'office, sans droit de vote, sur le Conseil d'administration et sur tous les comités établis par le Conseil d'administration;
4. créer et maintenir à jour des dossiers et documents de la Société conformément aux résolutions du Conseil d'administration;
5. garder le cachet réglementaire de la Société et certifier selon le besoin les documents émis par la Société.

Exigences :

1. Diplôme au niveau de la maîtrise en météorologie ou océanographie ou dans un domaine connexe.
2. Trois ou quatre années d'expérience à gérer des programmes en météorologie/océanographie au plan régional ou national.
3. Expérience et excellente communication écrite et orale de la langue anglaise dans un large éventail de questions techniques et celles en rapport avec l'administration, la gestion et la politique. Des aptitudes à communiquer en français sont souhaitables.
4. Classification de sécurité élevée.

Tâches :

1. Responsable de l'administration des affaires courantes de la Société, en :

- s'assurant comme il convient du fonctionnement et de l'organisation du Bureau d'affaires de la SCMO en rapport avec l'administration des activités financières et le maintien des registres des membres, des réunions et de la correspondance de la Société;
- agissant comme fondé de pouvoir pour signer et rendre compte au nom de la Société les activités reliées aux contrats, aux subventions et aux ententes;
- autorisant et approuvant le paiement des factures de moins de 2 000 \$ et pour les dépenses excédant les 2 000 \$, en demandant l'approbation du Comité exécutif;
- prenant les dispositions pour la vérification annuelle; et
- préparant et présentant les rapports pertinents à l'Agence des douanes et du revenu du Canada afin de conserver le statut de Société comme organisation charitable.

2. Prête son assistance au Conseil et au Comité exécutif dans la gestion de la Société, en :

- agissant comme membre, à titre d'office, sur le Comité exécutif, le Conseil et les comités de la Société;
- mettant à jour et en s'assurant du maintien des documents qui servent de guide pour le fonctionnement normal de la Société en rapport avec le «Calendrier des activités annuelles de la SCMO» et des «Lignes directrices pour les Congrès annuels de la SCMO».

Faire parvenir la demande d'emploi au :

Bureau du Directeur exécutif
Société canadienne de météorologie et d'océanographie
PO Box / CP 3211
Station D
Ottawa ON K1P 6H7



First Announcement

INTERNATIONAL CONFERENCE on STORMS

The International Conference on Storms will be held in Brisbane, Australia, during 5-9 July 2004, in conjunction with the Australian Meteorological and Oceanographic Society's (AMOS) Annual National Conference.

The conference will consider storms on all scales of the global atmosphere and hydrosphere. As vulnerable populations and assets increase, the life-threatening and damaging power of storms places increased pressure on programs to ameliorate their impacts. This multidisciplinary conference adopts an end-to-end approach, featuring the science of storms, observations, dynamics, prediction on all time-scales, impacts and/or risk assessment and mitigation.

The primary purposes of this meeting are to:

1. Bring together a diverse international group to share their knowledge and consider progress at all levels;
2. Promote interaction amongst the disciplines;
3. Better understand the limitations and barriers to progress as well as emerging opportunities; and
4. Serve as a training opportunity.

The conference will include a number of invited presentations on focus topics, and will solicit papers on all aspects of storms. Poster presentations will feature prominently. It is also planned to include short workshops or tutorials on selected topics.

Please note that the deadline for submission of abstracts is March 1, 2004. You may express your interest right now.

Co-sponsors include the Commonwealth Bureau of Meteorology (Australia), Queensland Department of Emergency Services Counter Disaster and Rescue Services, the American Meteorological Society and the Meteorology Society of New Zealand.

For further information, please contact Mr. Rex Falls by e-mail at: stormsconf@bom.gov.au or visit AMOS website at: <http://www.amos.org.au/stormsconf>

THE ROYAL METEOROLOGICAL SOCIETY Announcement The Rupert Ford Travel Awards

The Royal Meteorological Society administers the Rupert Ford Fund which has been set up by his family, friends and colleagues to honour the name of the late Dr Rupert Ford, whose brilliant scientific career was cruelly cut short by illness. The Fund will be used to sponsor travel by outstanding young scientists from any part of the world to enable them to work and study in centres of excellence in their field outside their own countries.

Applications are now invited for the Rupert Ford Awards for 2004 from scientists who will be 30 years of age or less on 31 December 2004 and must reach the Society's offices by 1700 GMT on Monday 31st December 2003. **Applicants do NOT need to be Members or Fellows of the Royal Meteorological Society.**

Full details of eligibility for the Award and an application form are available from:

The Executive Director, the Royal Meteorological Society, 104 Oxford Road, Reading RG1 7LL U.K +44 (0)118 956 8500, +44 (0)118 956 8579 (fax) or can be found on and downloaded from www.royalmetsoc.org. All applications must include a description of the work to be undertaken and an assessment of its relevance and importance. A clear statement *at an appropriate level* from the target Institution, indicating acceptance of the applicant for a short term research or study placement, and a statement of support from a senior academic colleague (Head of Department or Professor) in the applicant's research field are also essential.

The awards are competitive and dependent upon the quality of the applications. Applications will be assessed and award decisions made by a panel of distinguished scientists set up for the purpose. The value of each award for 2004 will be of the order of £3,000 (US\$4,500 or Eu4,700).

9th International Meeting on Statistical Climatology

2nd Announcement and Call for Papers
24-28 May 2004
Cape Town, South Africa

Purpose: The IMSC is a multi-disciplinary conference for climatologists, statisticians, and scientists in other related disciplines. The conference seeks to address issues related to the climate system and to introduce recent advances in analysis techniques – together advancing the methodical basis of climatology while providing a relevant context for statisticians.

Theme: Oral presentations and posters are invited on all topics related to the analysis of the climate system and advances in relevant statistical techniques. In addition, a series of thematic sessions will focus on:

- Prediction and verification;
- Climate model validation;
- Climate change detection;
- Modes of variability;
- Extreme events and Generalized Linear Models.

Registration and deadlines: The deadline for abstract submission is the 29 Feb 2004. Attendance may be limited and early registration is encouraged, online at:

<http://www.csag.uct.ac.za/IMSC>

Awards: Awards for best student presentation and student poster will be made, along with the IMSC achievement award (US\$1000) for outstanding contribution in the application of statistics to atmospheric and climate science.

Location: Cape Town is one of the world's leading tourist destinations, offering beautiful oceans, mountains, a unique cultural experience, and ready access to the rest of Africa.

E-mail: imsc@egs.uct.ac.za

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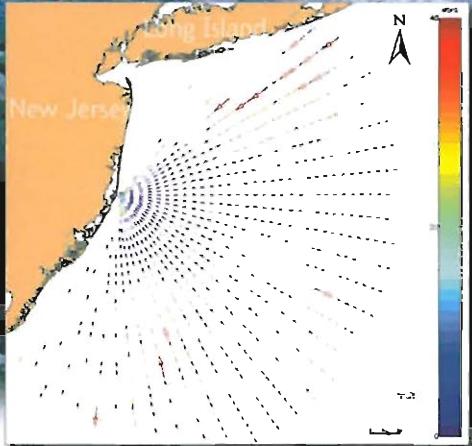
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Image courtesy of S. Glenn, J. Kohut - Rutgers University



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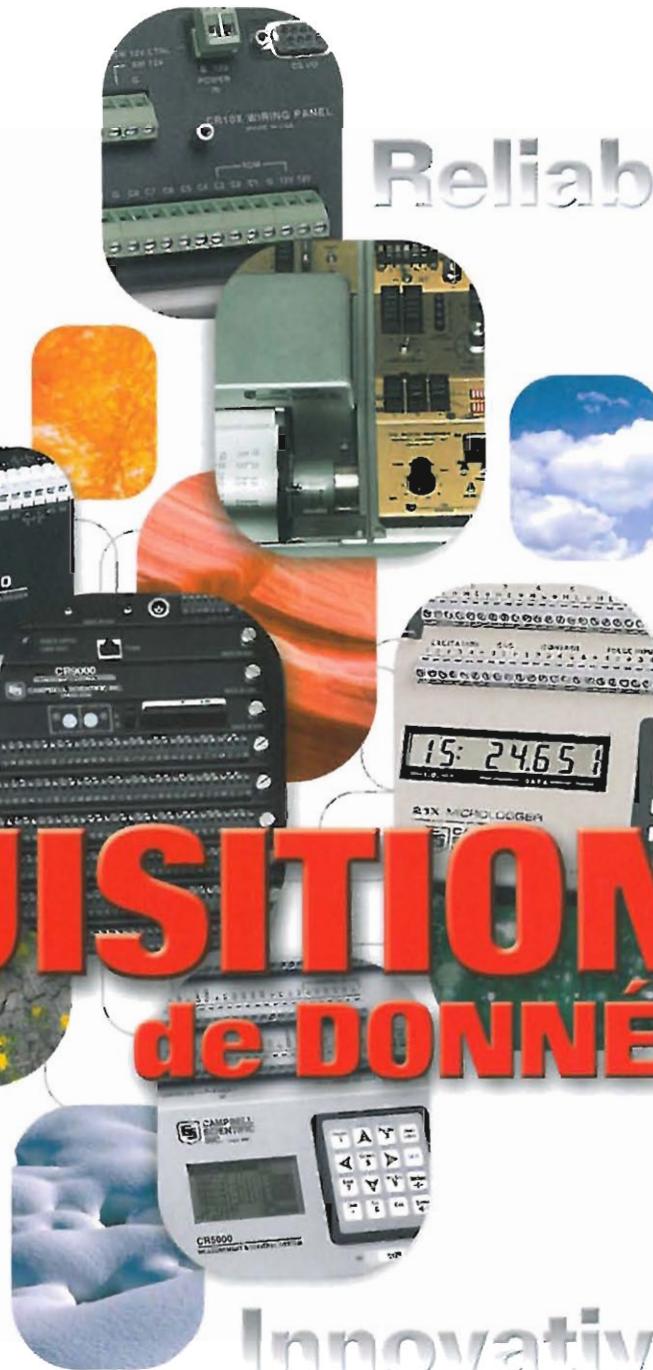


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