



# C. M. S. NEWSLETTER

1975

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## REPORT FROM THE SCIENTIFIC COMMITTEE

The members of SOMAS, having no great love for or attachment to the current name or acronym SOMAS, have adopted the name "Scientific Committee of the Canadian Meteorological Society".

Ed Lozowski, rapporteur on weather modification for the committee, has submitted the following report on recent activities in or related to Canada:

### 1. Alberta Hail Project

This is the only weather modification activity in Canada which has been reported since the proclamation of the Weather Modification Information Act. The 1974 Field Program Report summarizing operational and research activities during the first summer of the project may be obtained from: Mr. Jim Renick, Manager, Alberta Hail Project, Mynarski Park, Alberta. Changes for 1975 include:

- (a) modifications to the project boundaries and seeding guidelines;
- (b) expansion of the research staff of the Atmospheric Sciences Division of the Alberta Research Council to include Dr. Marianne English, Dr. Ian Harris, Mr. Frank Robitaille, and the new division head, Dr. Guy Goyer;
- (c) a diffusion experiment to be undertaken with AgI ground generators over a separate area of about  $10^3$  mi<sup>2</sup> to the south of Calgary.

### 2. AES Project

The AES is cooperating with the Forest Fire Research Institute in a program to test the feasibility of using weather modification techniques similar to those employed in the USSR to extinguish forest fires. In 1974 the program consisted of making observations and measurements in the vicinity of forest fires using instrumented aircraft supplied by NAE. The program is under the joint direction of Dr. George Isaac, AES, and Dr. L. B. MacHattie, FFRI. In 1975 the program may be expanded to include microphysical modelling and seeding tests.

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3. IWMP

A W.M.O.-sponsored international weather modification program focussed on the problem of stimulating rainfall in the tropics is likely to be announced following the Seventh Congress. Canada would naturally be expected to be an important participant.

4. AES Advisory Committee

The AES has established an advisory committee on cloud physics and weather modification. The chairman is Dr. W. L. Godson. The non-AES members of the committee are Professors Hitschfeld, List and Lozowski.

5. NAIWMC

Through the effort of the Weather Modification Association a North American Interstate Weather Modification Committee was established at a meeting in Denver on January 16-17, 1975. As far as I am aware, the Committee is an informal association of states and provinces involved in or interested in weather modification. Its principal aim seems to be to foster cooperation in weather modification activities among its members. Dr. John Maybank is the representative for the Northern Region including Manitoba, Saskatchewan, Alberta, North Dakota, South Dakota, Montana, Washington and Alaska. Mr. Gordon Sterling of Alberta is vice-chairman and Mr. Vern Butler of South Dakota is the chairman of the organization.

6. WMO Meeting

The WMO Executive Committee Panel/Commission for Atmospheric Sciences Working Group on Cloud Physics and Weather Modification (chairman Prof. R. List) met from October 28 to November 2, 1974 in Toronto to prepare an extended statement on weather modification and to review other WMO activities in this field. The extended statement will be available after the Seventh Congress of the WMO (May 1975).

7. Canada/U.S. Agreement

Canada and the United States are preparing an agreement to advise each other in advance of the possibility of weather modification operations occurring within 150 miles of the border. Canada's part in this agreement will likely be administered by the AES, along with the Weather Modification Information Act. Mr. Richard Poersch is the weather modification information officer at AES HQ.

John Maybank provided more background on NAIWMC. This committee is being spearheaded by a small group of two or three states who are proceeding with "all stops removed". The aims are as follows:

- (i) to help all the states (and provinces) by fostering cooperation and exchange of technological information;
- (ii) to build up a body of law and regulations governing weather modification activities (for agricultural use) which are acceptable to the participants and, thereby,
- (iii) to shortcut any attempts to outlaw weather modification activities, and
- (iv) to establish as an accepted principle that water substance is a state (provincial) resource and, thereby, to keep the federal governments (especially the U.S. federal government) out of the picture.

Roland List stated that the scientific position is that there is no sound justification for cloud seeding on an operational basis; that is to say, the technology has not reached the useable level. If the International Weather Modification Program is accepted by WMO Congress and if the U.S. votes for it (as they are expected to), then the official position of the U.S. federal government will also be that the technology has not reached the useable level. The Scientific Committee members generally deprecated this insular activity of the NAIWC and stressed that national and international aspects of weather modification activities must be considered and that the water substance and modification reagents in the atmosphere obviously crossed state (provincial) and international boundaries.

#### CMS SCIENTIFIC DEVELOPMENT FUND

One of the senior members of our Society, recently finding himself in an unusually agreeable financial state, pondered how this might be used for the benefit of Canadian Meteorology. He decided to initiate a fund, to be entirely under the Society's control, which would generate income for the support of worthwhile projects which might otherwise be beyond the Society's means. The Council of the CMS expressed their pleasure at the generous contribution of the sum of \$2000 and resolved to establish a fund whose purpose is to help advance the state of meteorology in Canada and the good name of the Canadian Meteorological Society. The publication of monographs or position papers, or the commissioning of

papers or presentations by noted scientists are possible applications. It is hoped that other members in a position to do so will assist in increasing this development fund. The Society hopes to be able to transfer some of its operating surplus to the fund as well.

#### LIVING WITH CLIMATIC CHANGE IN NORTH AMERICA

The CMS has been invited to co-sponsor, with the Science Council of Canada, a series of events under the general title "Living with Climatic Change" arranged jointly with agencies in the U.S. and Mexico. U.S. participation will be through the A.M.S. and the National Academy of Sciences. Mexican agencies will be the Geophysical Institute of the Autonomous University of Mexico, the Geophysical Section of the Council on Science Policy, and the corresponding members of the Geophysical Union, with coordination by Julian Adem.

Phase I of the project is a workshop to be held in November 1975, probably in Montebello. The workshop will consist of a review paper by a leading climatologist on climatic history followed by five or six short and signed position papers expressing informed opinion on climatic changes by recognized authorities. Workshop participants will then develop "scenarios" of what the climate of North America would look like if various changes occurred.

Phase II will be a series of conferences in the summer of 1976 at which suitable responses to the various climatic scenarios will be discussed.

#### NEW MEMBERS

The following have been elected to Society membership  
21 February:

D. Bourque	G. Goyer
D. Dockendorff	T.F. Mullane
M. Geast	B. Segal

21 March:

D.J. Corr	I. Zawadzki.
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W.S. Creswick  
Editor  
C.M.S. Newsletter.

## ANNOUNCEMENT

The Third Annual Forecast Research Symposium of the Meteorological Services Research Branch will be held June 16 - 18, 1975 in the Auditorium of the Atmospheric Environment Service Headquarters Building, 4905 Dufferin Street, Toronto. There will be 28 papers on this year's theme "R & D Support to the Design of Advanced Forecast and Observational Systems" presented by AES scientists and by scientists engaged in contract work in Forecast Research. In addition, there will be presentations by noted scientists from the US National Oceanic and Atmospheric Administration.

Colleagues who are interested in attending should contact Mr. Clive Jarvis, 4905 Dufferin Street, Downsview, Ontario (phone 667-4849) and an invitation will be issued as long as space is available.

# FIRST ANNOUNCEMENT

## Symposium on Modeling of Transport Mechanisms in Oceans and Lakes. Environment Canada, October 6-8, 1975

**PURPOSE:** To evaluate current numerical-dynamical models of the physical properties of large natural water bodies with particular reference to internal distributions of momentum and mass. The theme of the Conference will be the implications of water movements and thermal processes with regard to redistribution of dissolved or suspended substances in oceans and lakes. Emphasis will be on the synthesis and integration of individual geophysical and thermodynamic principles toward a simulation of the complete transport characteristics of the aquatic environment.

**PROGRAM:** Six sessions are planned, each consisting of a state-of-the-art introductory lecture followed by approximately three hours of contributed papers. Tentative titles for the sessions are:

- 1a. Large Scale Circulations in Oceans and Lakes.
- 1b. Horizontal and Vertical Motions in Nearshore Zones.
- 2a. Convection, Stratification, and Thermocline Formation.
- 2b. Dynamic Effects of Stratification and Internal Oscillations.
- 3a. Movements of Ice and Transport of Particulate Matter.
- 3b. Meteorological Input for Aquatic Models.

**ARRANGEMENTS:** The Conference will be held at the Canada Centre for Inland Waters in Burlington, Ontario, and arrangements will be made jointly by the Inland Waters Directorate and the Oceanography Branch of Ocean and Aquatic Affairs. The Program Committee consists of T. J. Simons (Sessions 1a-b), F. M. Boyce (Sessions 2a-b) and T. S. Murty (Sessions 3a-b).

**REGISTRATION:** Abstracts should be submitted by August 1, 1975, and will be distributed to all participants before the meeting. Length and detail of abstracts is left at the discretion of the author, but should be adequate for a critical interpretation and discussion of the paper. Early return of the attached preliminary registration form will be appreciated. The mailing address is: Dr. T. J. Simons, Canada Centre for Inland Waters, 867 Lakeshore Road, P.O. Box 5050, Burlington, Ontario, Canada, L7R 4A6.

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### PRELIMINARY REGISTRATION, SYMPOSIUM ON MODELING OF TRANSPORT MECHANISMS IN OCEANS AND LAKES, ENVIRONMENT CANADA, OCTOBER 6 - 8, 1975.

Name: \_\_\_\_\_

Affiliation: \_\_\_\_\_

Address: \_\_\_\_\_

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I intend to submit a contribution:     YES     NO

Tentative title of paper and number of session:

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