

ZEPHYR

APRIL 1973 AVRIL

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JOURNEE METEOROLOGIQUE MONDIALE 1973 A QUEBEC EN VILLE

par Gérard Desjardins

Les dates 23 et 24 mars 1973 furent soulignées d'une façon spéciale à Québec.

En effet à l'occasion de la journée mondiale de la météorologie, le Bureau Météorologique de Québec avait organisé une exposition à Place Laurier, le plus vaste centre commercial du Canada.

Ce kiosque d'un aspect fort simple mais de bon goût, soulignait trois thèmes principaux:

Le premier décrivait les différentes activités de l'OMM en matière d'entraide internationale.

Le second montrait quelques instruments utilisés à la station de l'Ancienne Lorette tel que l'héliographe, le pluviomètre, le niveaumètre, le radar

Le troisième thème illustre l'évolution du temps sur une période de 24 heures.

Avec la courtoisie du CMC, nous avons à notre disposition des cartes de surface, d'altitude ainsi que les photos de satellites correspondantes. Les cartes de l'OACI sur la structure des fronts furent d'une utilité extrême.

Durant ces deux jours, il y a eu foule autour de notre exposition. Ce succès nous le devons à plusieurs facteurs: d'une part une bonne publicité à la télévision, la radio et les journaux locaux; et d'autre part un endroit stratégique au centre commercial Laurier. On ne pouvait nous manquer, on devait nous contourner. Une estimation rapide nous permet d'affirmer qu'entre 4 et 5 milles personnes se sont arrêtées pour regarder et questionner les divers éléments de notre exposition.

Ces deux jours de contacts directs avec Monsieur tout le Monde nous ont permis de relever quelques réflexions qui revenaient fréquemment:

Aux yeux du grand public la météo c'est fabriqué par un homme: Alcide, Jacques, Philipe. . . c'est peut-être un mythe. Peut-être ne faisons-nous pas assez connaître l'Equipe qui entoure ces noms.

Plusieurs universitaires se sont plaints du manque d'informations météorologiques à leurs maisons d'enseignement ainsi que de la non-disponibilité de conférenciers au cours de l'année académique.

Nous avons dû, plusieurs centaines de fois, expliquer ce qu'étaient les traînées de condensations (contrails) si souvent confondues pour des machines à pluie.

L'Héliographe en a fait sourire plusieurs; dans ce domaine nous avons atteint notre but. La curiosité des gens était piquée, on ne pouvait croire qu'on se servait encore d'une BOULE de cristal.

On peut considérer que dans l'ensemble les gens ont paru satisfaits des prévisions qu'on leur offre, même si certains préféreraient plus de détails quelques fois.

En sommes nous avons réalisé l'objectif fixé: établir un dialogue avec les usagers de nos prévisions et de nos données climatiques. Ce qui fut dépassé au delà nos espérances.

Un tel succes est dû principalement à l'étroite collaboration qui a régné au bureau météorologique de Québec lors de la préparation de ces journées. A partir du chef de service M.A. Hone qui a amorcé le travail de location en passant par les observateurs et la téléphoniste qui en plus de leurs travaux réguliers ont préparés la documentation à cet effet, pour enfin aboutir aux techniciens en devoir au stand: messieurs Larocque, Tardif, Sigouin, Desjardins.

Ce fut une expérience exténuante, mais des plus enrichissante que tous souhaitent recommencer dans un avenir rapproché.



*de futurs
météorologues???*

*A Québec la météorologie
est vivante. . .*





Le kiosque du bureau météorologique de Québec au centre commercial Laurier, les 23 et 24 mars 1973.

(1)



(2)



1. *Quelques instruments à la station de l'Ancienne Laurette.*
2. *Les cartes du temps.*
3. *Les activités de l'OMM.*

(3)

THE FROST OF JUNE 11, 1972, IN SOUTHWESTERN ONTARIO

by Morley Thomas

Perhaps not unusual in many parts of Canada, June frosts are not common in southwestern Ontario. When they occur, however, there is significant damage to agriculture. Prior to last year, the most recent widespread occurrence of a late killing frost in Ontario was on June 8, 1949, when record low temperatures for so late in the season were observed at or near such towns and cities as Goderich, Sarnia, London, St. Catharines and Kitchener. Twenty-three years later, a somewhat similar meteorological situation resulted in heavy killing frosts on the early morning of Sunday, June 11, 1972 throughout the rich agricultural lands of Ontario's southwestern counties.

Saturday, June 10, was cool and sunny in fresh Arctic air as a large high pressure system moved southeastward over the Great Lakes region. With light winds and clear skies temperatures dropped from the low 50's in the late afternoon to below freezing at dozens of climatological observing stations by the early morning hours of June 11. Minimum values at AES Weather Stations and Weather Offices were 33° at Toronto Airport, 32° at Simcoe, 31° at London, 30° at Sarnia and 28° at Mount Forest. The lowest official value at climatological stations was 27° at both Brucefield and Strathroy in the western part of the afflicted region.

Across vast areas the temperatures at levels below the standard four-foot thermometer level were apparently several degrees below freezing. At the Delhi CDA station, where the official minimum temperature was 30°, the grass minimum was 18°, and comparable readings at Guelph OAC were 30° and 20°. At an experimental Tower site at Delaware, near London, the standard level minimum was 30° and at the one-foot level 27°, while in contrast at the 25-foot level, the temperature was never lower than 33°, and at 45 feet never lower than 34°. Further study of the tower data from the Delaware site reveals that the inversion situation began about 8:00 p.m. and persisted until past sunrise on the morning of June 11. The magnitude of the inversion was 7 degrees between the surface and the 45-foot level, and most of this occurred between the surface and the 5-foot level.

Farmers and growers suffered substantial economic losses as hundreds of acres of young tobacco, tomato, potato and other cash crop vegetables were killed overnight. It has been estimated that Ontario's 1972 tobacco crop was diminished by 20%, while field tomatoes were of poor quality and two to three weeks late in reaching the markets later that summer.

Climatologically, the radiative cooling and resulting frost were of interest, since (a) the minimum temperatures on the 11th were the month's lowest for June 1972 throughout the entire southern portion of the province as well as in most of southern Quebec, a most unusual uniformity across such a large area; (b) the month turned out to be the coolest June on record, or for many decades, at several places in southern Ontario, and (c) new record low temperatures for June 11 were established at many stations, and for any day in June at some. Notes in the Monthly Meteorological Summaries reveal "extensive killing frosts" at London, "extreme damage to tobacco plants necessitated replanting of a large portion of the tobacco acreage along Lake Erie" at Hamilton, and "extensive losses to fruit, tobacco and vegetable crops in the area" at Simcoe. Needless to say, southern Ontario growers and farmers will anxiously watch their thermometers if an apparently similar meteorological situation appears in June 1973.

WEATHER AND TRANSPORTATION

by Roy Lee

Speech given to the "Roads and Transportation Association"

"On February 27, 1973 one of the biggest power disruptions in Alberta's history blacked out most of the province's southern half, affecting 750,000 people. Severe icing conditions knocked out three 240,000 volt lines that serve a 35,000 square mile area ranging from Red Deer in the north to Lethbridge in the south. The failure struck Calgary during the morning commuter rush hour, snarling traffic as signal lights blinked out Flight operations at Calgary International Airport proceeded normally, backed by emergency power Emergency power generators also prevented disruptions at city hospitals and the fire departments."

As a news item, this Globe and Mail story is not in the least unusual. My purpose in relating it is to highlight the tremendous impact weather has on our lives. Located, as we are, directly in the path of the main weather disturbances crossing North America snow, ice, sub-zero temperatures and low visibilities are inevitable parts of the Canadian environment. Moreover, the size of our country makes travellers of us all. It is therefore timely that the Roads and Transportation Association has included the subject of weather and transportation in the First Snow and Ice Conference. How important it is, is eloquently expressed by the two hundred millions of dollars Canadians pay yearly for the removal of snow and ice from roads, railways and airports. If we add to this figure the figures for accidents and personal injuries, we see that the total cost to Canadians is indeed substantial.

Our ability to control the natural occurrence of snow and ice is so small as to be negligible. Hence, our problem is not to much how we can prevent adverse weather but rather how we can best live with it. The Atmospheric Environment Service which I represent is responsible for information and warnings of weather conditions affecting transportation. I am happy to have this opportunity to discuss our services with you and to find out what you need in order to better serve the transportation industry.

How snow and ice affect transportation is so well known to this audience that it would be fruitless for me to dwell on these at length. What I shall do instead is to review briefly the conditions under which snow and ice occur in different parts of Canada and what our present capabilities are in predicting these events. I do this in the belief that through broadening our mutual understanding of the problem of taking adequate counter-measures to minimize the hazards to life and property, that our services to the travelling public will be second to none in the world.

Let's consider briefly how snow and ice occur in Canada. The two main classes of cloud systems which yield significant amounts of snow and ice are distinguished by size. The main class consists of nothing more than the familiar low pressure or storm centres which you see in the press or on television. The rain or snow brought by these storms often develop simultaneously with the initiation of the low pressure system itself; then as the storm matures the area of snow or rain maintains more or less the same shape. The regularity of the snow pattern in the mature stage makes snow forecasting somewhat more accurate than in its initial stage of development. Even though the boundary of such a snow area is often well-defined, its precise location cannot be specified with an accuracy

greater than fifty to a hundred miles very far in advance. In short range forecasting, that is, up to 18 hours, we do much better for this particular type of weather system. The approximate amount of snow or rain and its general pattern is predicted in advance with fair accuracy using electronic computers at our Canadian Meteorological Centre at Montreal. Timing the beginning of snowfall during the initial stages of storm development is somewhat less accurate.

Under what conditions do we get snow and ice in Canada from these synoptic scale weather systems? To begin with, snow is not uncommon west of the Rockies and the Coastal Range. It occurs after deep cold air with below freezing temperatures spills west of the Coastal Range, followed by a Pacific depression advancing toward southern B.C. The fact that the cold air west of the mountains is contained by the mountains is the primary cause of heavy snowfalls in the populated sections of southern B.C. Farther inland the snowfalls are largely controlled by the mountain ranges in that upslope winds tend to increase precipitation while downslope winds decrease precipitation. As we proceed eastward, we note that Alberta and the Yukon are particularly vulnerable to sudden snowstorms because of the tendency for storm development east of the Continental Divide. Easterly winds accompanying such weather systems tend to enhance snowfall amounts. The well-known prairie blizzard with blinding snow and sub-zero temperatures occur north of low pressure centres moving through Montana, Wyoming and the Dakotas. These storms are particularly dangerous because of the low visibilities and the extraordinary wind chill.

Near open bodies of water such as the Great Lakes, Lakes Winnipeg and Manitoba, snow also occurs in winter in association with the so-called lake effect storms — a class of smaller scale weather systems. These lake effect storms are comparatively small groups of clouds which yield substantial snowfalls over small areas, in contrast with the major middle latitude depression which blanket two provinces simultaneously. I use the word "small" advisedly, because when one is caught in one of these snowstorms, it's impossible to tell the difference between it and a full-fledged blizzard. What causes the snow is that the air in passing over a lake, picks up moisture and deposits it in the form of snow further inland, especially if there is significant upslope motion. In general there are several narrow bands of cloud which yield heavy snow over areas often not more than 5-10 miles in width. The snow may persist in the same location for fairly long periods, if the wind direction remains the same. Much of the heavy snows at Sarnia, London, Kitchener-Waterloo, Parry Sound, Sault Ste. Marie, Buffalo and communities at the eastern end of Lake Ontario arise from this process. On the other hand, Toronto is sheltered from these storms by the Niagara Escarpment, and consequently receives far less snow than does the area around Georgian Bay.

As far as Quebec and the Maritimes are concerned, the major snowfalls at Montreal and Quebec are brought by winter storms following the St. Lawrence Valley and especially the eastern seaboard. Those parts of the Maritimes, Newfoundland and Quebec near open water during the winter also experience significant snowfalls with onshore winds when the temperatures are below freezing.

Let's now consider the question of ice which affects transportation. Freezing precipitation is a major hazard in all parts of Canada and is caused by warm rain becoming supercooled in falling through a layer of very cold air. Where it occurs most often is north of a low pressure centre along a narrow band between the rain and snow areas. If the low pressure centre moves fairly rapidly the freezing rain may last three or four hours, otherwise it may persist for more than a day. Certain locations are more susceptible to freezing rain

than others, notably the Ottawa Valley, due to the fact that the cold air becomes trapped in the valley and the rain simply becomes supercooled falling through the cold layer. The southern Alberta ice storm of February 27, this year is another example.

The natural variability in the amount of freezing rain is illustrated by an actual instance of observed precipitation in Southern Ontario during January 13-14, 1969, described by McKay and Thompson (1969) and shown in Figure 1. This is quite typical of precipitation patterns, whether snow, rain or freezing rain. The prediction of these variations is very difficult, if not impossible. The science simply does not permit this degree of forecasting accuracy. (Perhaps this short sequence of time lapse film of a radar screen will serve to demonstrate the variability of precipitation.)

In a discussion of weather and transportation, I should not overlook the importance of rain, wind, low visibility and bright sunshine on transportation. Rail transport is also far from immune to the vagaries of weather. Severe storms may damage tracks, bridges and communication lines. Floods, heavy snowfall, and earthslides are ever present menaces while heavy snow and avalanches are particularly troublesome in mountains. Weather conditions can affect railway systems in two ways, first of all by hindering the safe and rapid movement of trains; the most important of which is low temperature which causes problems of track expansion and contraction. A more serious problem arises from ice forming under a railbed as a result of poor drainage which may cause operational problems with the switches and heave the tracks up with its expansion. Secondly, there are the various economic effects of weather on the transport of freight and passengers related to maintaining comfortable temperatures in trains and protecting perishable goods from excessively high or low temperatures and humidity.

In summary, I have attempted to provide an insight into some of the problems we have in providing completely accurate predictions of snow and ice, many of which arise from inherent properties of the atmosphere. I have no hesitation in saying that absolute accuracy in weather prediction is an elusive goal toward which nevertheless we constantly strive. The Canadian Weather Service is committed to support the transportation industry to the best of its ability. Our contacts with provincial highway departments and municipalities are already well established to the point where our officers telephone advance warnings of hazardous road conditions. Our fifty-six weather offices are here to serve you. So I close with an offer on behalf of our six Regional Offices across the country to get together with municipalities and provinces to work out cooperative arrangements for a better transportation weather service.

Reference: McKay, G.A. and H.A. Thompson, 1969: Estimating the Hazard of Ice in Canada from Climatological data. *Journal of Applied Meteorology*, 8, 6, pp 927-935.

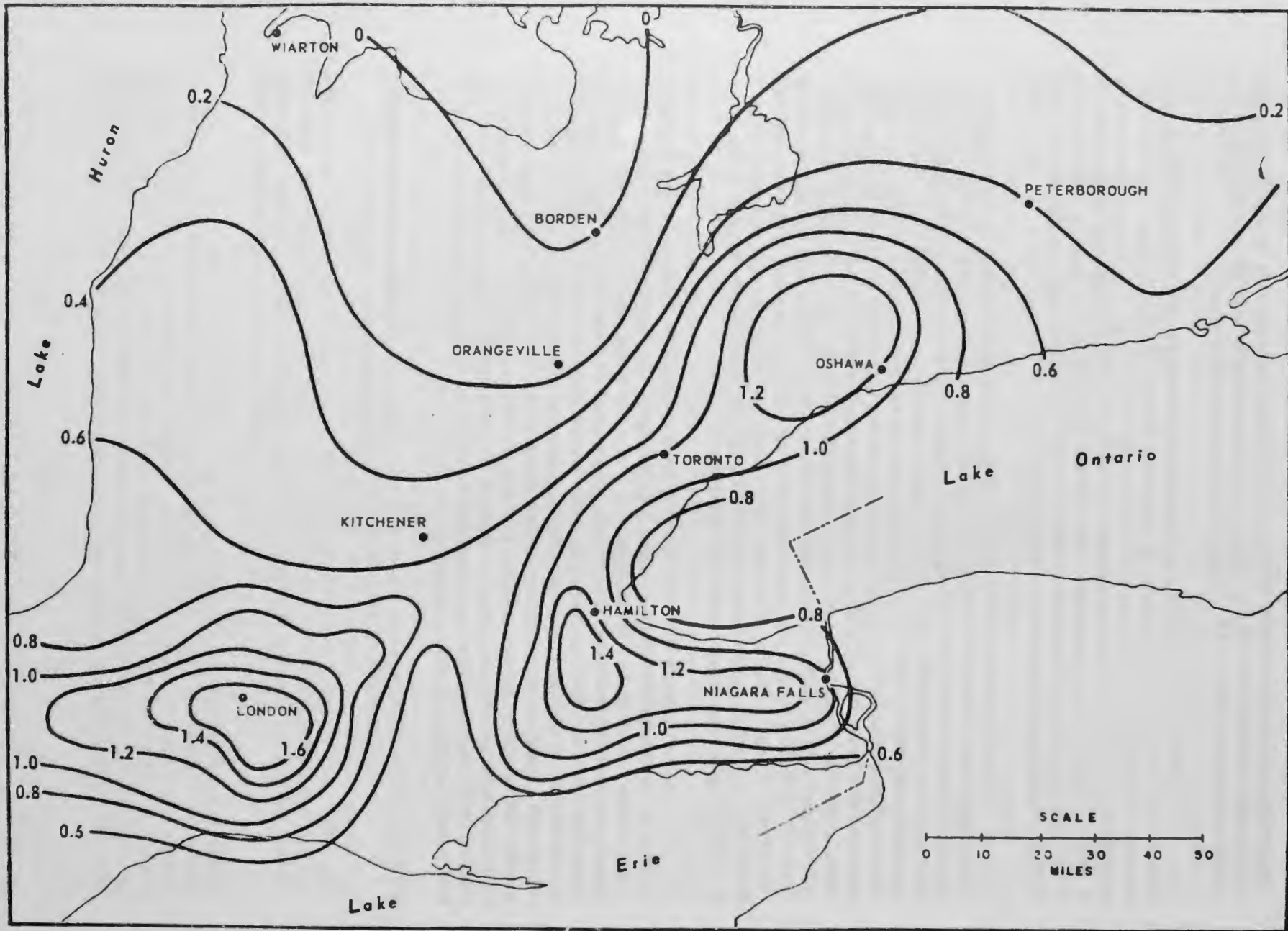


Fig. 1 FREEZING PRECIPITATION (inches) Jan. 13-14, 1968

LES MACHINES A PLUIE, C'EST PAS D'HIER FEUILLET METEOROLOGIQUE

Il y a quelques années en Abitibi, on avait confié la responsabilité d'une station météorologique à un forgeron de village qui possédait presque toutes les qualités requises pour observer les phénomènes atmosphériques. En effet, il était compétent, consciencieux, respectueux de l'horaire et du programme des observations, fier de la bonne tenue de sa station et régulier dans l'envoi de rapports clairs et précis.

Cependant, il manquait un tantinet de diplomatie, particulièrement avec la gent écolière. Les ruades de ses patients chevalins, et peut-être aussi les inquiétudes amenées par la disparition graduelle de la profession de maréchal-ferrant, le rendaient grincheux et d'une sociabilité pas toujours à toute épreuve.

Comme on le sait, la forge du village était dans le passé le lieu de rendez-vous des rentiers et des personnes en quête de nouvelles. Tout en ferrant les chevaux de ses clients, le forgeron prenait part lui aussi à la conversation; de fait, il était le principal colporteur de tout ce qui se faisait ou se disait à plusieurs milles à la ronde. Les habitants du canton avaient l'habitude d'amener leur cheval à la forge et de confier parfois leur bête au propriétaire durant leurs emplettes au magasin général. Ils y revenaient ensuite fumer une bonne pipe avant de retourner à leur ferme avec un cheval bien ferré, des marchandises correspondant à une liste préalablement préparée par la maîtresse de maison, et surtout, des nouvelles toutes fraîches à l'intention de la famille et des voisins.

Les gamins aussi rendaient visite au forgeron. L'attrait du feu alimenté par un soufflet à bras, les chevaux aux robes disparates, et plus spécialement la chance d'obtenir un vieux fer-à-cheval, gage de bonheur, attiraient les jeunes au retour de l'école.

C'est ainsi qu'un jour, après l'installation de la station météorologique, des jeunes remarquent les allées et venues du maréchal-ferrant de la forge à la station, et qu'ils demandent à ce dernier le pourquoi des instruments mystérieux installés dans un enclos voisin. Devant la réponse peu satisfaisante du forgeron, on a vite fait de s'enquérir ailleurs du pourquoi de ces appareils et particulièrement du petit récipient fixé au sol et destiné à mesurer la pluie. Pourquoi alors ne pas jouer un vilain tour à cet homme désagréable qui ne voulait pas les mettre dans le secret de ses activités météorologiques? L'idée, qui avait probablement germé dans le cerveau d'un vétéran de "la guerre des boutons," reçut immédiatement l'approbation du groupe et comme à la guerre, on nomma des espions qui surveilleraient le forgeron ou attireraient son attention, tandis que quelques-uns d'entre eux iraient à la station exécuter le tour projeté.

Il ne fut pas long au pauvre forgeron de constater, qu'après plusieurs jours de temps sec, le pluviomètre contenait quand même quotidiennement "une hauteur de pluie mesurable" et quelle pluie . . . si bien qu'il se mit en état d'alerte pour essayer d'identifier les propriétaires des "machines à pluie." Il finit évidemment par prendre les fauteurs en flagrant délit, un jour que trois gamins déversaient virilement leur zizi dans l'entonnoir pluviométrique avec force commentaires et éclats de rires. Plutôt que de punir les gamins ou de les dénoncer à leurs parents, ce qui n'aurait eu aucune conséquence efficace, il préféra rire avec eux et leur faire comprendre la portée de leur inconduite. Les jeunes, devant un forgeron qui montrait tout à coup un si beau caractère, se le tinrent pour dit et n'ont plus songé depuis à répéter leur exploit. On sait par ailleurs que la station météorologique de l'endroit a été déménagée, vu l'abandon par le forgeron de son ancienne profession pour celle plus moderne d'homme de service à un poste d'essence. Ce fait se passait, il y a longtemps et il n'est jamais cité dans l'histoire de la météorologie. . . .

GREAT LAKES CONFERENCE

The International Association for Great Lakes Research held its sixteenth conference on Great Lakes Research at Huron, Ohio from April 16-18. The conference, sponsored by Ohio State University attracted 650 registrants including 133 Canadians. In all there were 205 papers presented. The Atmospheric Environment Service was represented by scientists from the Hydrometeorology and Marine Applications Division, Training Branch, Research Directorate and Instruments Branch. Four concurrent sessions were held covering hydrometeorology, physical and chemical limnology, water quality, instrumentation, processes, geology, fisheries and environment and society. A full day's session was devoted to an IFYGL symposium where 21 papers described experiments and preliminary results. At this session Dr. H. Martin of the Research Directorate described his micro-meteorological work over Lake Ontario designed to measure energy fluxes during periods of May and October 1972. His calculations, which he compared to climatological averages were used to quantify heat content changes in the lake. Mr. D.H. Champ, Instruments Branch, presented a paper describing the performance of the AES automatic shoreline and lake tower installations during IFYGL. Another paper of interest was a performance analysis of the IFYGL Rawinsonde System by C.J. Callahan, NOAA. Data returns indicated that 86 percent of the scheduled runs were successful with Canadian results equal to or exceeding those from the American stations.

STATUS REPORT OF AES IFYGL ACTIVITIES AS OF APRIL 30, 1973

NOTE: Although the data acquisition phase of IFYGL ended formally on March 31st it has been agreed to continue a few networks into July.

Radiation Equipment

The special AES IFYGL radiation stations continued to operate throughout April for the extension of the Energy Balance Program.

Evaporation Pans

The X-3 evaporation pans remained in operation during April. The class A pans were reinstalled on the following dates:

Kingston	- April 1/73
Trenton	- April 30/73
Woodbridge	- April 18/73

Data Processing

The data processing of the radar data and the shoreline station data is proceeding satisfactorily. No work has yet been done on the Bedford Tower data.

VOLUNTEER WEATHER OBSERVERS

Awards to six volunteer weather observers in B.C. for distinguished service were announced by J.L. Knox, Director, Pacific Region, AES. These awards are made annually to selected participating observers in all regions in Canada and this year's B.C. winners are:

Mr. D.G. Pearce – Vancouver, Univ. of B.C.
Miss M. Terfrey, Gambier Harbour
Mr. J.J. Landysheff, Delta
Mr. J.L. Donchi, MacLure
Mr. G. Uttke, Richland
Mrs. P.M. Field, Osoyoos

The following letter was received by the Regional Director – Central, AES, J.J. Labelle from Mr. Michael Lysack of Swan River, Manitoba, who was one of the volunteer weather observers honoured in the Central Region.

Box 97
Swan River, Man.
April 2, 1973.

Mr. J.J. Labelle
Regional Director
Atmospheric Environment Service
405 – 391 York Ave.
Winnipeg, Man.

Dear Mr. Labelle:

Please accept my sincere thanks and appreciation for the award presented to me recently by your congenial Meteorological Inspector Cliff Robinson. Naturally, your letter came as a pleasant surprise; may I assure you that the "Airguide Combination" will prove to be of practical value. Certainly I will treasure it as a decorative memento.

May I add that Mr. Robinson's visits have always been very useful to me in providing detailed information and helpful hints on the various aspects of weather observations.

We, of the farming community, find that as we learn to cooperate with the weather rather than be apprehensive about it, the sunshine always dispels the dark clouds and the calm always follows the storm. Thanks again,

Yours in weather cooperation,

Michael Lysack



LE PRINTEMPS

WORKSHOP ON AEROBIOLOGY

International and Canadian needs for a program of aerobiological monitoring were examined at a workshop held at the Toronto Headquarters of AES on April 26 and 27, 1973.

Seventeen of the 26 participants were invited scientists from universities, other government departments, and provincial agencies. They brought to the workshop a wide range of knowledge in biology, microbiology, medicine, veterinary science, and meteorology.

The diversity of viewpoints was evident early in the proceedings during a general discussion of the definition of "aerobiology." It appeared initially that it might be impossible to identify a monitoring program that would be of general interdisciplinary value. However, this pessimistic impression was rapidly dispelled when three drafting sub-committees began to work on the following topics:

- a) Definition of aerobiology, justification for a monitoring program, and the monitoring of insects and birds.
- b) The monitoring of pesticides and other trace chemicals.
- c) The monitoring of microscopic biological materials.

The final report of the workshop recognized the potential value of regular monitoring on local, regional and ultimately on global scales. Scientific and technological state-of-the-art was considered adequate to initiate monitoring on local or regional scales for certain materials (bacteria, fungi, pollens, algae, protozoa and some pesticides). However, the main thrust of the recommendations was to identify research that had to be done before the full potential of aerobiological monitoring could be realized. These research needs fall into two main areas; the selection of indicators that could be used to monitor the general health of ecosystems on regional and global scales, and the development of instrumentation and analytical techniques for the rapid monitoring of biological materials in the atmosphere.

The workshop met its primary objective of providing a Canadian scientific input, through appropriate channels, to the U.N. Environmental Governing Council. Equally important was the development of interdisciplinary understanding. The attention of the aerobiologist was focussed on the value of regular world-wide observational systems, a value which meteorologists accept without question. On the other hand, the meteorologists present gained an understanding of the great difficulties faced by biologists in establishing systems to monitor the complex biological components of the atmosphere on regional and global scales. A report of the workshop is to be published by AES.

PERSONNEL

The following transfers took place:

Miss C.E. Klaponski	From: CFB Comox Temporary Duty To: CFB Comox
E.J.G. Guimond	From: Air Services Training School, Ottawa To: Maritimes Weather Office, Halifax
G.M. Shimizu	From: FSD AES HQ To: OIC, Atlantic Weather Central
J.B. Maxwell	From: Prairie Weather Central To: Atmospheric Research Directorate, AES HQ
R.H.W. Hill	From: METOC Centre, Halifax To: Supervising Forecaster, Maritimes Weather Office, Halifax
P.Y.T. Louie	From: Weather Office, Toronto To: Environmental Research Branch, AES HQ

The following are on temporary duty or project assignment:

P.S. King	From: Inventory B To: Weather Office, Gander
L.T. Winstone	From: Inventory B To: Quebec Regional HQ
C.J. Power	From: Maritimes Weather Office, Halifax To: Weather Office, Gander
S.M. Checkwitch	From: A/OIC, Weather Office, Calgary To: A/OIC, Weather Office, Edmonton
D.J. Phillips	From: Weather Office, Gander To: Atlantic Regional Headquarters

The following have accepted positions as a result of recent competitions:

72-AES-CC-192	Meteorology MT7 Shift Supervisor Atlantic Weather Central, P. Galbraith
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- 73-DOE-ONT-CC-17 Meteorology MT8
Chief Forecaster
Weather Office, Toronto
G.W. Gee
- 72-AES-CC-130 Meteorology MT6
Shift Supervisor
Weather Office, Goose
J. Pelto
- 72-AES-CC-24 Meteorology MT8
Head, Physical Climatology
AES HQ Downsview
G.E. Bristow
- 72-AES-CC-339 Meteorology MT4
Scientific Support Officer
Environmental Research Branch
AES HQ Downsview
P.Y.T. Louie
- 72-AES-INV-218 Meteorology MT8
Senior Staff Officer, CFWS
Ottawa
D. Nowell

The following changes in AIB personnel have occurred:

- 72-AES-CC-289 Meteorology MT10
Chief, Systems Planning & Implementation Div.
Atmospheric Instruments Branch
AES HQ
H. Gerger
- 72-AES-CC-296 Meteorology MT6
Instrument Systems Meteorologist
Automatic Weather Stations
Atmospheric Instruments Branch
AES HQ
D.W. Buss
- 72-AES-CC-296 Meteorology MT6
Instrument Systems Meteorologist
Upper Air/Radar
Atmospheric Instruments Branch
AES HQ
R.S. Shannon

72-AES-CC-297

Meteorology MT6
Instrument Systems Meteorologist
Airport Instrumentation
Atmospheric Instruments Branch
AES HQ
J.J. Moakler

Resignations:

M.S. Hirt
AES HQ
Downsview

R.W. Shaw
AES HQ
Downsview

Retirements:

G.R. Kendall
Chief, Climatic Services Division
AES HQ
Downsview

Retirement of Dr. D.P. McIntyre

Dr. D.P. McIntyre, Director-General, Atmospheric Research Directorate, has announced his retirement from the Atmospheric Environment Service. Dr. McIntyre will join Dames and Moore, Consulting Engineers in the Applied Earth Sciences, as an Associate and a Principal in the firm.

APPOINTMENT

Gordon M. Shimizu has been appointed by the Public Service Commission to the position of Officer-in-Charge, Atlantic Weather Central, Halifax, N.S. The appointment was announced by K.F. Harry, Regional Director, Atlantic Region, Atmospheric Environment Service, Moncton, N.B.

M. Gordon M. Shimizu a été nommé par la Commission de la Fonction publique au poste d'agent responsable du Centre météorologique de l'Atlantique, à Halifax (Nouvelle-Ecosse). Sa nomination a été rendue publique par M. K.F. Harry, Directeur Régional de la Région Atlantique, Service de l'Environnement Atmosphérique, à Moncton (N.B.).

TRIVIA

THE BOSS IS DIFFERENT! HE NEEDS UNDERSTANDING

by Jack McArthur

Just as the care and training of a military man is pointed toward his ultimate death in action, so is the career of an executive based on the assumption of his departure—by death, movement to another job or retirement.

This makes him different from most other workers, who are more secure.

Bosses are basically insecure. The corporation lives forever, or so it's assumed. Key men must be succeeded by those who are equally or more competent.

In the interest of continuity, the environment encourages executives to strive for the next step up — and to look back over their shoulders at those who would push them aside.

If you don't understand that, you're missing one of the important realities of your job, whether you're a boss or some one who is being bossed. Of course, most executives are both.

Considering how much it may mean to them, it's odd that most employees know little about the special characteristics of bosses.

Executives are much the best informed on this subject. A whole industry of consultants, theorists, academics, researchers and journals exists to tell them about it.

But no one tells the workers. They blunder along unaware of the things which make the men they work for different from other people.

For example:

1. The boss lives in an increasingly rarified atmosphere as he progresses higher. That's why it's always a geewiz story when an executive answers his own phone or drinks beer with the men from the shop.

After a period of years, he literally does not know why "ordinary" people think or act the way they do. He has forgotten. That's why he's always hiring other executives and consultants to check up on people. He's not offensively nosey, merely trying to relieve his ignorance.

2. As a natural result, the boss is terribly afraid he doesn't know what's going on in his own company or department. Yet he **MUST** know. Isn't that his job? If he doesn't know, how can he organize production in the best way?

3. This leads to a fascination with "communication" (that's a whole sub-industry in itself).

Most communications systems are designed to organize a mass of confusing information about employees, their attitudes and actions, so that it's understandable to the boss and doesn't consume much of his precious time.

This is usually impossible. In any large organization, there are too many different personalities and things going on to fit any quicky analysis.

4. The perceptive boss knows that his people don't tell him everything. What he doesn't know — and this is agonizing — is how much is being kept from him, and what it is.

One study of executives in companies with an "open," criticize-the-boss policy found that it didn't work well. Junior executives almost universally sensed that certain criticisms and ideas were not acceptable. This in spite of the fact that they had been told that frankness would be rewarded. "I've got guts," said one, "but I don't want them all over the floor."

This sometimes causes senior executives to go to the rank-and-file for friendly, frankly given information. This doesn't work either. The boss is power, and man speaks differently when he confronts power.

5. Just as the boss resorts desperately to "systems" of information, he uses systems to try to make sense of problems in production, distribution or any other corporate activity.

The systems are many and elaborate, being dissected and revised endlessly by theorists. They usually go by strange names or sets of initials — PERT, MBO or Critical Path — but they are all designed to bring some uniformity and organization to the almost unorganizable humanity huddled within the corporation.

Consultants continually warn executives to be flexible with these systems. That is a sure sign that they are not flexible, grasping their every detail in steel-like embrace like a drowning man grabbing a lifejacket.

6. Bosses are hipped on How-can-we-avoid-this-bad-thing-happening-again. That is because they are trained to solve problems and battle crises. How they perform in that area is going to have a lot to do with whether they are to tread that deeper broadloom upstairs.

This means, of course, that they have less time for the How-can-I-make-good-things-happen approach. When everything goes smoothly the boss feels useless. In a sense, he is. No crises to battle, no spectacular achievements. He's either taken for granted or regarded as superfluous.

Here's a fundamental division between bosses and the bossed. The latter like both good things and bad things better than the boss.

Internal corporate disasters are entertaining and exciting for the worker, relieving his boredom. The worker may cooperate to avoid bad things but it's not the basis of his philosophy of working life.

The worker also enjoys good things happening. They, too, are unusual, a subject for a chat during the coffeekick.

The boss doesn't oppose them; quite the contrary. But give me a problem I can solve!

There are many other things you should know – the bosses' strange attitudes toward money, the reason for their compulsive love long meetings and longer memos, their phobia about human unpredictability.

But let's leave them some privacy, poor things. We should simply accept that they are brighter, harder-working and . . . very different, needing understanding at some times and firmness at others.

Getting along with the boss is the burden of mankind. It's long past time for us to switch our research and consultants to analyzing this task.

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It is better to keep your mouth shut and be thought a fool than to open it and remove all doubt.

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A playboy usually spends part of his money on liquor, part of it on women, and the rest foolishly.

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