



MONTHLY REPORT OF THE CANADIAN METEOROLOGICAL SERVICE

APRIL 1971

1871



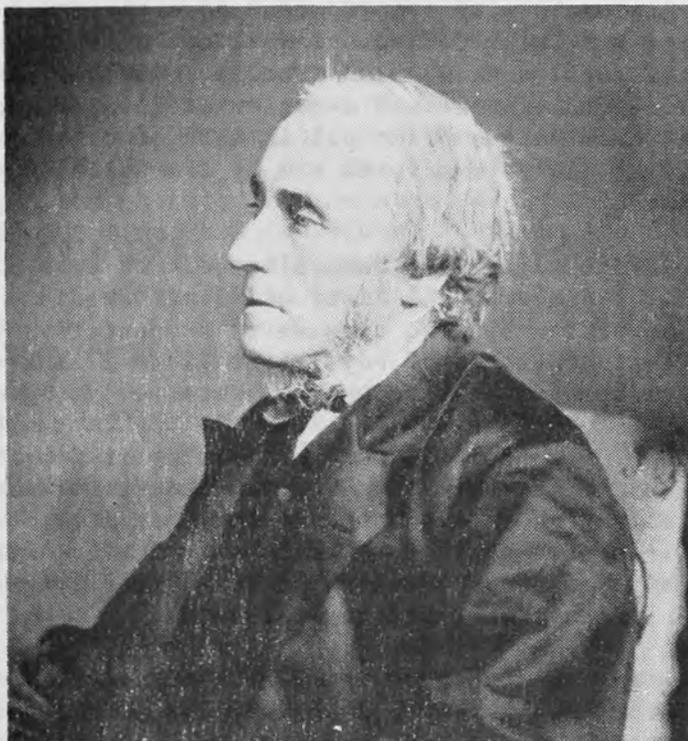
1971

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PROFESSOR GEORGE T. KINGSTON - 1817-1886



This is the fourth in a continuing series of biographies of
the early Directors of the Canadian Meteorological Service
written by Dr. Andrew Thomson

George T. Kingston was born near Oporto, Portugal, the second of the eleven children of Lucy Henry Kingston, merchant of London, and Francis Sophia Rooke. Lucy is an unusual name for a man, but in this case Lucy Henry Kingston was named after members of a distinguished and wealthy Lucy family.

The Kingston family had made a fortune in the wine import business to England from Spain. The family divided their time between London and Oporto so that of the eleven children three were born in London and six in Oporto - two were born at ports enroute.

George went to good elementary schools - "Eagle House", "Cheshunt" and "Hammersmith" where less attention was paid to Greek and Latin than in most schools of that time. He attended the Naval College at Portsmouth and graduated with a gold medal in mathematics. He was admitted to Gonville and Caius College, Cambridge, at the age of 26. Kingston obtained his B.A. degree, 32nd wrangler, in 1846 and his M.A. degree in 1849. For some time he was a master at Eton College, but resigned his appointment there to become principal in 1852 of the Naval College at Quebec. This position had been offered him by the Colonial Secretary of the British Government.

The Naval College had been a project of Lord Elgin, Governor General of Canada, aimed at the instruction of Canadians wishing to follow a sea life as officers. Two classes of students were received at the College; the first consisted of boys about 12 to 17 intending to enter the merchant service or navy; the second consisted of young men, mates of merchant men, pilots and others who had been already at sea and wished professional training. The College was wholly supported by the Canadian Government. Very little has been found of Kingston's work at the Naval College, but more attention should have been paid to it. The institution was probably the first attempt to establish a nautical college in the British Empire outside of Great Britain and it was the fore-runner of the Naval College at Halifax established in 1911.

Kingston's famous brother, W.H.G. Kingston, the author of many classic boys stories, visited his brother George at Quebec from November 12, 1853 to January 12, 1854, before returning to Toronto. G.T. Kingston, shortly after his brother's visit, received an invitation from the Appointment Board of the University of Toronto to fill the chair of Natural Philosophy at Toronto. Kingston resigned his position at the Naval College at Quebec, made his way to Toronto only to find upon his arrival that his own brother-in-law Professor Bradford Cherriman, being on the spot, had already secured the appointment. While W.H.G. Kingston wrote a long account in his book "Western Wanderings" of his visit to Toronto with his brother G.T. Kingston, he never mentioned their brother-in-law Prof. Cherriman.

To explain Prof. Cherriman's appointment, the following sentences have been taken from the official History of the University

"University of Toronto 1826-1907":

"In the spring of 1853, Prof. Murray who occupied the chair of Mathematics and Natural Philosophy, had died and Mr. J.B. Cherriman, M.A., Fellow of St. John's College, Cambridge, who had been for some time acting as his assistant, became virtually his successor although the title of the chair was now Natural Philosophy. Prof. Cherriman was a man of great ability and attainments and is represented as having revolutionized the teaching of mathematics in the province."

On March 21, 1855, an Order in Council was passed recommending to the University authorities the establishment of a Chair of Meteorology to be filled by the Director of the Observatory at a salary of £450 of which two thirds were to be paid by the Government and one third by the University. In furtherance to this, on May 8, 1855, University College of the University of Toronto established the Professorship of Meteorology and on May 22, 1855, Professor Cherriman was selected to fill the office of Superintendent of the Observatory. On August 11, Mr. Kingston was appointed to the Chair of Meteorology and the Directorship of the Observatory. (There is no reference to Dr. Cherriman's official resignation of his appointment, although there may be some reference to it in some record that has been lost.) Since Dr. Cherriman's term in the Chair of Meteorology was in the summer holidays at the University, it would appear that Kingston should be given credit as being the first Professor of Meteorology in the British Empire.

The old wooden observatory building built by Capt. Riddell in 1841 had badly deteriorated by the time the British personnel returned to England in the early part of 1853. Magnetic observations ceased until resumed under Provincial authority in July 1855, while meteorological observations were continued without intermission. The general supervision was committed to the Professor of Natural Philosophy in University College Toronto until the appointment of G.T. Kingston, M.A., in August 1855 at a salary of £450.

In the autumn of 1853, a stone building was commenced to take the place of the old observatory. The new observatory was rectangular 54 ft. long, 44 ft. wide and 16 ft. high exclusive of the roof with a tower 48 ft. high on the northwest corner. The stone in the building was carefully tested to ensure the material was non-magnetic. Three small rooms built of stone were first erected and used as offices during the demolition of the old wooden observatory. The erection of the large room and tower of the new observatory building was commenced in June 1854 and was completed in June 1855. The total cost of the above buildings as erected on the Northeast corner of the present Galbraith Engineering building was \$13,100. The main stone observatory building was subsequently moved stone by stone to its present location between Hart House and the University Library.

The Director's residence was built close to the new Observatory

by the University of Toronto at a cost of \$4,840, also two cottages for the observers at a cost of \$5,020. Mr. Kingston did not take up his duties at the observatory until this building program had been almost completed.

From 1873 to 1882 there was a long haggle between the University and the Federal Government regarding the ownership of the observatory buildings, in which Mr. Kingston was involved. The following sentences in the concluding paragraph in John Langton's report sets out the University's position as of June 9, 1879:

"If arrangements could be made so that the Observatory shall continue to be, as was originally intended, an important adjunct to the University the funds of the University have been usefully employed in connection with it. But, if it is to be entirely disassociated from the University we should have a right to resume possession of the Director's house built with our funds on our own property should it be vacated by the present Director and Professor of Meteorology".

Under Mr. Kingston the magnetic program was relegated to second place and meteorology became first. Meteorology became a subject in the University curriculum with a prescribed text book and examinations and scholarships. Mr. Kingston gave the lectures and in the fourth year there was a prize of five dollars offered to the student standing highest in the course.

Mr. Kingston wrote an article entitled "On the Employment of the Electric Telegraph for Predicting Storms" for the Canadian Journal Vol. II 1857 p. 177. According to Kingston the annual loss by shipwreck in the Great Lakes was estimated to be about eight million dollars a year. Many of these shipwrecks would have been prevented if timely notice of coming gales had been given by telegraph. Gales in some localities prevailed for many hours, sometimes even two or three days and travelled only a few hundred miles. According to Kingston storms were subject to definite laws which may be discovered from extended observations. With the concurrence of telegraph companies, the operator at certain telegraph stations could telegraph to Toronto the time of commencement of a gale at his station. The Toronto Telegraph Company would, in turn, inform the Observatory. The Observatory staff would then relay the gale data to agents located at various ports to hoist storm signals wherever storms might be expected.

Prof. Kingston slowly, but persistently, obtained the necessary observers and provided them with the necessary meteorological equipment. He also secured the cooperation of the Chief Signal Officer at Washington, D.C. who transmitted reports from 15 U.S. stations as far as Buffalo, N.Y. According to Prof. Kingston's annual report for the year ending December 31, 1879, there were 19 telegraphic stations in Canada and during the year 712 warnings were issued of which 591 were fulfilled.

Through his enthusiasm and efforts, Prof. Kingston was able to secure a large number of voluntary observers throughout all parts of Canada during the period 1858 to 1871. That year the Dominion of Canada took over the accounts of the Meteorological Service from the Provincial Government and provided a grant of \$5,000 to permit increasing the number of stations and having a number of them report daily to the Observatory. Experiments were made for some years in making weather predictions and commencing on October 1, 1877, weather forecasts were telegraphed to 75 places in Canada.

Prof. Kingston's health began to fail in 1879 and he retired from the Meteorological Service in 1880 and died in Toronto on 21 January 1886. He was married in 1851 to Henrietta Malone daughter of Capt. Edward Malone, Royal Naval Hospital, Plymouth. They had one son George Malcolm.

CENTENNIAL CONGRATULATIONS

The following signal of congratulations to us on our centenary was received at the Halifax Atlantic Weather Central from the USSR Vessel, M/S Musson:

MOT AWC HFX

MOT TEL HFX

HMR 1806

M/S MUSSON/EREA VIA HFXMARINERDO 22 17 0900

CENTRAL CANADIAN WX SERVICE HALIFAX

ON BEHALF OF YOUR SOVIET COLLEAGES PLEASE ACCEPT OUR VERY BEST COMPLI-
MENTS ON YOUR CENTENARY REGARDS

MASTER

0929Z FW+

MOT AWC HFX

MOT TEL HFX

FORECASTS BY TRAIN

by R. G. Stark

Weather forecasts are relayed by telephone, telex, teletype, radio and television. Before the invention of these methods of communication, many ways were used to send forecasts to the mariner, farmer or other user. Perhaps the most novel method of the past 100 years of the Canadian Meteorological Service was by displaying symbols on the side or front of railway trains.

In 1871, a grant of \$5,000 in the estimates of the Minister of Marine and Fisheries established the Meteorological Service of Canada. Arrangements were made to collect weather reports from various places, and to relay storm warnings issued by the Signal Office in Washington to Canadian ports. By the end of 1873, 33 Canadian stations were equipped for the display of storm signals, using a system of hoisting drums and cones. A few years later lights were used during the hours of darkness.

By 1876, the central office, in Toronto, received weather reports from 101 stations in Canada, six in Newfoundland and several United States stations relayed from New York. On the basis of these reports forecasting began. Daily forecasts were sent out at 10 a.m. each week day from the beginning of October and were published in the afternoon papers. A year later these forecasts were being sent to "75 principal places in Canada, west of Quebec", and were posted up both in the telegraph offices and the post offices. On December 31, 1878, this service extended to 20 stations in the Maritimes.

The number of stations receiving the "probabilities" continued to increase and by 1882 included every office on the lines of the Great North Western Telegraph Company, which covered practically all of Ontario and Quebec, and the ports of New Brunswick. The time of issue of the daily forecast was changed to 1 a.m. so that the forecasts might be posted by the telegraph offices when they opened in the morning, and were published in the morning papers.

"Train Weather signals" began in 1884, to provide forecasts to farmers and others living within the sight of the railway. The forecast issued at 1 a.m. and sent by telegraph to the railway agents, was portrayed by large metal discs carried on the "baggage van" or express car of morning trains from June to September inclusive. The shape of the disc indicated the weather forecast thus:

full moon	-	fine weather
crescent moon	-	showery
star	-	rainy weather.



TELEGRAPH OFFICE WHERE FORECASTS WERE POSTED FROM 1877 ON

(Courtesy of C.N.)

On the disc the appropriate word "fine", "showers" or "rain" was painted. In the first year of operation these railways used the method: Canadian Pacific Railway, Grand Trunk Railway, Canada Atlantic Railway, Northern Railway; and it was planned to extend the system to the Government railways and to Intercolonial Railway for the farmers in the Maritimes. Reporting in 1940 on the history of Canadian Meteorology, Dr. J. Patterson, then Controller, said:

"I can quite well remember, as a small boy, noting the weather forecasts in this way".

This method of receiving the weather forecast was appreciated by rural and urban areas along the railway. However, difficulties developed as reported by Charles Carpmael, the Director of the Meteorological Service, in his Annual Report of 1890:

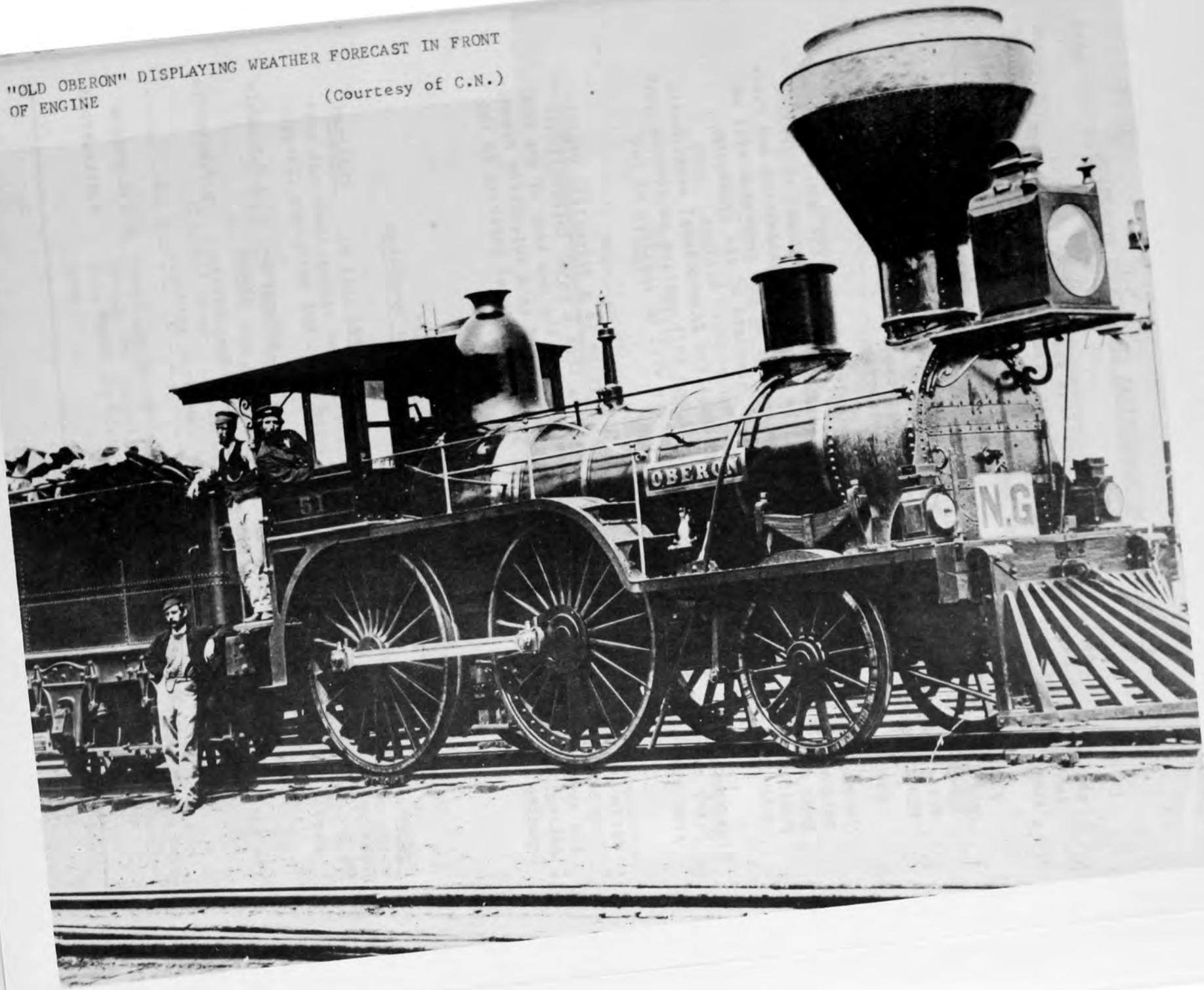
"The system of disseminating the probable weather by means of signs displayed on railway cars has been carried out this year; and I regret to say that whilst the Superintendents and the various executive heads of the different railway companies manifest a great interest in this work, and do all in their power to assist in carrying it out, the train hands whose duty it is to place and remove the signal discs, do not uniformly evince a disposition to emulate their superior officers, and the signals have been frequently allowed to remain unchanged for lengthening periods, thus not only bringing discredit on this service, but allowing false predictions to be carried throughout the country".

Despite this apathy of train hands, the system continued for many more years, at least up until 1898, as it was mentioned in the Annual Report for that year as providing farmers far from a telegraph station with a general knowledge of the daily forecast.

EDITOR'S NOTE: On some runs the symbols were carried on the front of the engine - and when the discs were not considered to be indicative of really bad weather, a large sign "N.G." (not good) was displayed, as shown in the C.N. photograph of "Old Oberon".

"OLD OBERON" DISPLAYING WEATHER FORECAST IN FRONT
OF ENGINE

(Courtesy of C.N.)



A HISTORY OF METEOROLOGICAL CHALLENGES SYMPOSIUM

As part of the celebrations associated with the opening of the Canadian Meteorological Service new Headquarters Building, an important international symposium will be held in Toronto. Fortunately this comes in our centennial year and can thus serve a double purpose.

This symposium, "A History of Meteorological Challenges", will be held at the new headquarters during 26-28 October 1971, and will immediately precede the official Opening of the building scheduled for Friday, 29 October. Because of the importance of the occasion and space limitations, attendance will be by invitation.

Speakers have been invited from all over the world and each is an acknowledged authority in his field. The speakers are to present meteorological progress by describing the challenges confronted and overcome during the last century. The proceedings of the symposium will be published in a style suitable to the high standard of the symposium.

The Joint Organizing Committee for GARP (Global Atmospheric Research Program) will be holding its second 1971 meeting in Toronto just prior to the symposium and some JOC members will be speakers at the symposium and all are expected to attend.

The Canadian Meteorological Service is a scientific organization of world importance and it is fitting that a major international symposium be part of the opening proceedings for the new home of the CMS. The symposium will emphasize the fact that the CMS is a scientific organization, and will attract much national and international interest to the opening ceremonies.

Following is the symposium program:

A History of Meteorological Challenges Symposium

<u>Date</u>	<u>Topic</u>	<u>Speaker</u>	<u>Chairman</u>
Tuesday 26 Oct. a.m.	Symposium Opening		
	The First Century of the Canadian Met. Service	P.D. McTaggart- Cowan	J.R.H. Noble
	General Circulation of the Atmosphere	J. Smagorinsky	D.P. McIntyre

p.m.	Radiation in the Atmosphere	F. Müller	W.L. Godson
	Physics of Cloud & Precipitation	B.J. Mason	W. Hitschfeld

<u>Date</u>	<u>Topic</u>	<u>Speaker</u>	<u>Chairman</u>
Wednesday 27 Oct. a.m.	Upper Atmosphere Meteorology	R.J.Murgatroyd	J. Gregory
	Atmospheric Chemistry and Environmental Pollution	B.R. Bolin	A.W.Brewer
	-----	-----	-----
	p.m. Atmospheric Boundary Layer	R.W. Stewart	K.D. Hage
	Acquisition of Meteorologi- cal Data	V. Suomi	C.C.Boughner
Thursday 28 Oct. a.m.	Dynamic Weather Prediction	G.P.Cressman	A. Robert
	Small-scale Motions and Their Prediction	T. Fujita	J.L. Knox
	-----	-----	-----
	p.m. Applied Meteorology and En- vironmental Utilization	R.E. Munn	F.K. Hare
	Organization to Meet Chal- lenge	R.M. White	J.S.Marshall
	Symposium Closure		

PHASED U.S. WITHDRAWAL FROM JAWS

In line with the approved plan for withdrawal of U.S. support from the Joint Arctic Weather Stations and equivalent increase in Canadian support, the steps indicated below have been accomplished:-

- (1) All U.S. owned electric power plants at the JAWS have been turned over to Canada.
- (2) All other U.S. owned equipment at Alert other than upper air tracking equipment has been turned over to Canada.
- (3) Upper air sounding equipment (GMD) has been purchased by Canada for installation at the JAWS later this year to coincide with the withdrawal of the U.S. owned upper air equipment.

- (4) All U.S. personnel at Alert have been withdrawn and replaced by Canadian staff.
- (5) The staff of the Arctic Section, Basic Weather, was increased by one in March 1971.
- (6) Purchase of the increased Canadian share of the annual supplies for Alert via Sea Supply 1971 is in progress.
- (7) The training of additional Canadian upper air observers to replace U.S. observers being withdrawn from Mould Bay and Isachsen in October 1971 is in progress.

VARIATION OF SNOW RESOURCES WITH TOPOGRAPHY
AND VEGETATION IN CANADA

This paper by G.A. McKay and B.F. Findlay was presented by Mr. Findlay to the Western Snow Conference at the annual meeting in Billings, Montana. Distinctive regional snow storage patterns were outlined in the paper and some implications were drawn for water resource planners. The complex roles of relief, water bodies and forest association varieties are considered as key factors in snow ablation, accumulation and transport.

FOURTEENTH CONFERENCE ON GREAT LAKES RESEARCH

A highly successful Fourteenth Conference on Great Lakes Research, sponsored by the International Association for Great Lakes Research, was held on the University of Toronto Campus, April 19-21. Almost 600 Great Lakes scientists heard 114 papers presented during three symposia and 31 technical sessions. Three and sometimes four technical sessions ran concurrently. One or two-page summaries of each paper had been pre-printed so that authors were restricted to a 10-minute presentation followed by a 10-minute discussion of each paper.

Canadian Meteorological Service personnel (all from the

Hydrometeorology Section) presented five papers:-

- Some over-lake profiles of wind, temperature and humidity observed from the CCGS "Porte Dauphine" - J.A.W. McCulloch
- "The modification of surface air over Lake Ontario" - D.W. Phillips
- "Feasibility studies for the IFYGL Atmospheric Water Balance Project" - H.L. Ferguson and D.G. Schaefer
- "The role of lake-effect storms in the hydrology of Lake Erie" - M.S. Webb and D.W. Phillips
- "Mapping surface temperatures on the Great Lakes from satellite infra-red data" - A.E. Strong, D.R. Baker (NESS, NOAA) and J.G. Irbe.

During the annual dinner at which Dr. R.J. Uffen, Chief Science Advisor to the Canadian Cabinet, was the guest speaker, it was announced by retiring President, J.P. Bruce, that the new Association Officers would be Dr. R.A. Ragotzkie, University of Wisconsin as President and Mr. T.L. Richards, Canadian Meteorological Service as the Vice-President.

THREE-DAY COMPUTATIONS WORKSHOP

On April 26 to 28, a three-day computations workshop was conducted in the training section by the staff of the Professional Development Unit. The participants in the workshop were the instructors from the Professional Training Unit, approximately ten in number.

The three-day workshop was a very compressed version of a two-week course which is under development for the field training program of the Professional Development Unit. The objective of this two-week course is to give field meteorologists, who have not yet had the opportunity instruction and practise in the utilization of the various computational facilities of the Canadian Meteorological Service. The three areas of emphasis included:-

- (1) Analysis, flow charting and programming of typical problem solution procedures.
- (2) Elementary and Intermediate statistical analysis using computer facilities.

- (3) Sorting, decoding and utilization of selected meteorological data.

Due to the fact that the participants were themselves instructors, considerable insight developed as to the tutorial requirements of such a course. In addition, the viability of the concept of a Computations Workshop was supported by the achievement of those who previously had little experience in using computers to solve meteorological problems.

CLIMATIC ASPECTS OF CONSERVATION

At the request of the Task Force on Conservation in Canada, Mr. G.A. McKay prepared a paper for inclusion as part of the Canadian contribution at the 1972 United Nations Conference in Stockholm, on Problems in the Human Environment. Mr. McKay's paper on the Climatic Aspects of Conservation considers the biological sensitivity to climate, man's impact on climate, future actions essential for conservation and research requirements in support of sound conservation practice.

HISTORICAL NOTES FROM NEWFOUNDLAND

by F. Rowe

Box G 18

Dispatches from Colonial Office dated April 1838 to December 1839.
Circular.

Downing Street,
29th November 1838

"LAWS OF STORMS"

Sir:

I transmit to you a copy of work lately published by Lieut-Col. Reid of the Royal Engineers, entitled "The Laws of Storms". The

object of the work is to develop with a view to practical uses in navigation, the laws by which storms and variable winds are governed - in order to make an inquiry of this nature truly useful, it is essential, that the facts connected with such Phenomena should be collected and arranged over an extended surface, and accurate records of them should be kept by persons whose education and scientific or professional avocations enable them to estimate the value of such records.

It has been suggested to me, that such records could be most easily obtained at the enquiries on which Col. Reid has entered and most advantageously followed up by inviting the co-operation of Captains of Ports, Masters of Lighthouses, Harbour Masters, and others whose professional pursuits naturally lead to the observation of atmospheric phenomena.

A perusal of the enclosed work will convince you of the interest and importance of this enquiry, and I feel sure that you will be anxious to do all in your power for its promotion.

I would therefore request you to communicate with such officers or private individuals in the Colony under your government, as may appear to you best qualified to furnish information on the subject, pointing out to them the service which they would render to science by keeping journals of such phenomena as may come under their respective observations.

The form in which such journals should be kept is suggested in the memoranda herewith enclosed. If you should succeed in setting on foot a system of observation, you will have the goodness to transmit to Her Majesty's Government, half yearly, an abstract of the journals at your command and I would suggest that you should endeavour as much as possible to obtain authentic information of the same nature from the Foreign Countries in your neighbourhood. I request to be informed to the measure which you may adopt for carrying this instruction into effect. I have the honour to be, sir,

Your most obedient, humble servant

GLENLEY

The following is from Page 67 same volume:

METEOROLOGICAL JOURNALS

Memorandums respecting the records to be kept in the state of the weather in the British Colonies.

The Captains of Ports, Harbour Masters, and Keepers of Lighthouses, or, where those officers do not exist, some other competent Public

Functionary, should be required to keep journals of the Weather on the principal of the log books on ships.

A column should be specially reserved for inserting the height of the barometer. Under the heading of "Remarks" should be entered all the meteorological observations, considered worthy of particular notice.

When a keeper of a journal may hear that a vessel has encountered a storm, he will enter in it any information on the subject, which he can rely on, together with the name of the ship, of her owner, and of the port to which she may belong.

With the view of tracing the course of storms, the Trinity Board of London have given directions for the adoption of measures to obtain a more accurate record of the state of the weather than has hitherto been kept at the lighthouses of Great Britain and Ireland.

The keeper of these lights have the opportunity of taking their observations by night as well as by day. Great advantage may be derived from employing them in this manner. Officers in charge of Colonial lighthouses should be instructed to keep similar journals. In noting the wind force both in the harbour master's journals, and in the lighthouse reports, it is desirable that the officers should adopt the numbers for noting the strength of the wind now in use in Greenwich observatory and about to be introduced at the lighthouses under the Trinity Board.

In the case of St. Helena and Ascension, it is desirable that more precise information should be obtained by observation respecting the "Rollers" at those islands. As the object of His Majesty's Government in instituting these inquiries is the advancement of knowledge and science generally, the Governors of the several British Colonies will consider how far it may be in their power to obtain useful information bearing on the subject from countries adjoining to their governments in the possession of foreign powers, or how far it may be useful to the study of meteorology to exchange the observation made within their governments for those of other countries in the neighbourhood.

If at any time desired, there would be no objection to the publication in the Colonial newspapers of extracts from the journals.

FORECAST RESEARCH SECTION STAFF CONFERENCE

A conference of research scientists and managers of the Forecast Research Section including both Toronto and Montreal components was

held in Toronto over a three-day period last February.

The primary purpose of the meeting was to hold discussions on the section's research plans and especially to involve the research scientists in the long-range plans now being developed. The discussions permitted clarification of the mission-oriented role of the section to the scientists on whose creativity and dedication success of the section's program depends. In addition to examining the direction in which future research in the section will go, the Conference served as a frank discussion forum between scientists and managers in respect to the organizational problems that confront the section.

The Conference was run on the basis of round-table discussions with a number of working-papers submitted to crystallize aspects of a lengthy agenda. Some of the titles of these papers will clarify the nature of the discussions:-

Forecast Research Section Long-Range Planning

An Example of a Scheme for a Future Forecast Production System

WMO-CAO Canadian Committee Recommendations on a Bilateral U.S.A.-Canadian Agreement

Projection of Research Activities 1970-80

Where the DPR Unit is Now, Operationally

GARP Experiments on Computational Considerations

Data Assimilation

Precipitation Forecasts

Short-Range Models

All participants felt the Conference was very successful not only because it met the purposes delineated in the second paragraph above, but also because it permitted the development of better and closer personal relationships and lines of communication between the scientists in the two branches of the section. An informal social evening helped in the latter regard.

It is hoped that this will be the first of a continuing annual program of such Conferences.

CLIMATOLOGICAL CONTRACT PROJECT

An interim report outlining progress on the Comparison of Potential Evapotranspiration Formulae to Determine Actual Evapotranspiration Amounts for Mapping Purposes - Contract Project, has been submitted by Dr. D.M. Gray of the University of Saskatchewan. Computer programs have been established and utilized in calculation of monthly potential evapotranspiration amounts by eight different equations. Values have already been computed for 10 different locations in Canada. While there has been good agreement in some areas in the results obtained by the various methods, agreement in other areas is poor. It is not possible at present to appraise the most appropriate potential evapotranspiration equation for predicting actual amounts, but analysis of data from additional areas and inclusion of additional free surface evaporation and lysimetric data during the next few months will permit a meaningful evaluation.

PERSONNEL

The following transfers took place:-

- C.J.F. Anderson - To Atlantic Weather Central, Halifax
From Ice Central, Halifax
- B.W. Crowe - To Prairie Weather Central, Winnipeg
From CMS Headquarters
- W.D. Hogg - To Arctic Weather Central, Edmonton
From Educational Leave
- E.T. Hudson - To Weather Office Goose
From CFB Gimli
- S.E. Lambert - To Arctic Weather Central, Edmonton
From Educational Leave
- J.F. McKee - To CFB Trenton
From CFB Cold Lake
- J.E. Percy - To Maritimes Weather Office, Halifax
From Educational Leave

W.I. Pugsley - To Central Analysis Office, Montreal
From CFB Uplands

MRS. LOUISE H. KINDREE

Mrs. Louise Kindree was appointed as a Personnel Administrator, Manpower Planning, at Canadian Meteorological Service Headquarters, Toronto, on April 1, 1971. From 1967 Mrs. Kindree was a Personnel Generalist with the Food and Drug Directorate, Department of National Health and Welfare in Ottawa, with responsibilities in the areas of staffing, classification and manpower planning for several scientifically-oriented Bureaux.

A native of the Province of Quebec, Mrs. Kindree graduated from the University of New Brunswick with a B.A. degree in languages in 1967.

MR. ROBERT E. GROSE

Bob Grose will be joining the staff of the Personnel Section on May 25, 1971, to take over the Classification Administration position recently vacated by Bill McKee. His previous experience includes 2-1/2 years as a Classification Officer with the Management Committee of Cabinet, Province of Manitoba and most recently, 20 months as a Staffing Officer with the Winnipeg Regional Office of the Public Service Commission.

Mr. Grose was educated in the Winnipeg Public School system and graduated from the University of Manitoba with a B.A. degree in English and Political Science in 1966. Mr. Grose is married and has one daughter.

DR. D.P. McINTYRE

Subject to the formality of publication in the Bulletin, Dr. D.P. McIntyre, Chief of the Research and Training Division, Canadian Meteorological Service Headquarters, has now completed all requirements for certification as a Certified Consulting Meteorologist by the American Meteorological Society.

PACIFIC REGIONAL METEOROLOGICAL COMMUNICATIONS OFFICER RETIRES

A party attended by 102 well-wishers was held in Vancouver on March 31st for PMBC D.H. Vittery, who retired that day after 33 years with the Canadian Meteorological Service.

Dan Vittery was born in England in 1906. Soon after, his parents emigrated to Sydney, Australia, where Dan was raised. His first job was with the Pacific Cable Board (now part of the Canadian Overseas Telecommunications Company) which operated the so-called "all-British" Trans-Pacific cable. The Board sent him to their training school at the cable station Southport, Queensland for two years; then in 1921 at the tender age of 16, he was posted from "down under" to work as a cable operator on the other terminus of the line, at Bamfield on the remote west coast of Vancouver Island. In 1929, as the bright lights increasingly beckoned, he moved on to Vancouver to work as a teletype operator in a stockbroker's office.

In 1937, when the establishment of Trans-Canada Air Lines brought an expansion of Federal Government weather services, Dan was a successful candidate in a competition for the first two teletypist positions in the Vancouver Aviation Forecast Office at the Sea Island Airport. In 1959 he was promoted to the position of Senior Communicator, and then, in 1965, moved downtown to Pacific Air Services Headquarters as Regional Meteorological Communications Officer.



Mr. & Mrs. Vittery and J. Knox (R.Met. - Vancouver Region)

Dan and his wife "Noelie" are sailboat enthusiasts and will spend a lot of time on local waters. In the winter their time will be divided between baby-sitting their 10 grandchildren and taking trips to warm climates, particularly their favorite vacation spot, Hawaii.

PILOT GLIDES TO SAFETY

The following is from the Winnipeg Free Press dated March 8, 1971:-

LANSLOWNE HOUSE, Ont. (CP) - Byron Parker has shown why he is an award-winning pilot.

The 23-year-old airman, who glided his crippled ski-equipped plane on to a lake within 100 feet of a trapper's cabin Friday, said in an interview Sunday it was strictly a routine procedure.

Mr. Parker and his wife Linda, 21, were en route from Lansdowne House to Thunder Bay, 300 miles south, where he was to receive a pilot-of-the-year award from the Thunder Bay Flying Club. They were rescued Sunday from a cabin where they spent two nights with three Indian trappers.

"We were about 3,000 feet up when the engine conked out and we had three or four minutes to pick a spot to land", he said, after returning to this remote Indian village in dense bush country in northwestern Ontario. He works as a weatherman here for the Department of Transport.

When the couple failed to turn up at Thunder Bay, a search was organized and the Piper Super Cub was spotted Saturday by a search aircraft from Canadian Forces Base at Trenton, Ont. The plane could not land because of bad weather.

The Parkers were picked up Sunday by Elmer Ruddick, manager of an Austin Airways Ltd. base at Nakina, Ont., about 180 miles north of Thunder Bay, and pilot Ron Lockhart.



J. R. H. Noble
Administrator
Canadian Meteorological Service



John Collins cartoon courtesy The Gazette

Official recorded snow-fall, winter 1970/71, as of March 31/71:
 at McGill Observatory 155.9 inches
 at Montreal International Airport 147.7 inches

Alcide Ouellet
 ALCIDE OUELLET
 Officer in Charge, Montreal Weather Office.

This souvenir of Montreal's record-breaking winter presented by
 The Royal Trust Company

Glyn Smallwood
 GLYN SMALLWOOD
 Assistant Vice-President, Manager, Montreal Branch (who was also there)



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