



# ZEPHYR

AUGUST 1977 AOÛT



Fisheries  
and Environment  
Canada

Pêches  
et Environnement  
Canada

Atmospheric  
Environment

Environnement  
atmosphérique

**ZEPHYR****AUGUST 1977 AOÛT**

Published Under Authority of the  
Assistant Deputy Minister  
Atmospheric Environment Service

Publié avec l'autorité du  
Sous-ministre adjoint  
Service de l'environnement atmosphérique

editor/la rédactrice: B.M. Brent

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**PERCENT OF POSSIBLE SUNSHINE — A VERIFICATION TOOL  
A NEW FORECAST PARAMETER**

N. Yacowar, M. Houde and L. Garrand

Bureau de prévisions du Québec

The forecaster is faced with two operational problems, first to forecast the synoptic situation and then to interpret the synoptic situation in terms of weather. Some weather parameters are being forecast directly by objective dynamical techniques, such as QPF, vertical motion and humidities, etc. Other parameters are forecast by statistical techniques, using a MOS perfect prog or analog approach. These include temperatures, winds, probability of precipitation, etc.

One of the most troublesome parameters to forecast is that of sky cover since the determination of sky cover from a sequence of observations is often difficult to assign a value to, or to parameterize. The opacity of the cloud cover as well as its duration must be taken into account.

A straightforward approach would be to use sunshine data as reported daily by numerous reporting stations. In Canada, as in most countries throughout the world, sunshine data are obtained from the Campbell - Stokes Sunshine recorder. This instrument provides a record of bright sunshine, i.e. sunshine bright enough to burn or scorch a standard card on which the rays of the sun have been concentrated. Reports are received from observing stations on a real-time basis giving the duration of bright sunshine. The percent of possible sunshine is then computed from the number of hours of sunshine relative to the number of hours of possible sunshine for the given station. The number of hours of sunshine possible depends on the day of the year and the latitude of the station.

A survey was held among the Quebec Forecast Office meteorologists to associate the various terminology used to describe cloud cover in our forecasts to the percent of possible sunshine. The results are shown in Table 1.

**TABLE 1.** Relationship between sky cover terminology and percent of possible sunshine.

	<i>Survey Range</i>	<i>Mean Value</i>	<i>Standard Deviation</i>
Sunny	75-100	84.7	6.1
Sunny with cloudy periods	45-70	62.9	6.2
Cloudy with sunny periods	20-40	34.1	5.7
Cloudy	0-25	14.1	6.0
Overcast	0	0	0
Variable	40-55	49.7	2.7
Becoming cloudy during the day	40-55	49.7	2.7
Becoming cloudy during the morning		35	
Becoming cloudy during the afternoon		70	
Clearing during the day	54-60	50.9	2.6
Clearing during the morning		70	
Clearing during the afternoon		35	

To these terms could be added a multitude of others which essentially say the same thing but which only serve to complicate the understanding of the meaning of the forecast.

Observations are received daily from twenty-one Quebec stations. Forecasts are prepared on a routine basis for fourteen of these stations. The forecasts for tomorrow's cloud cover issued at 11:00 EST are transformed into percentage terms and verified against the observations. The sum of the squares of the errors is used as the verifying statistic and is compared to the climatological forecasts. An example of the daily output is given in Table 2. The figure 999 is used where there is missing data or forecasts are not prepared, for the eleven stations verified for June 17. On this day seven forecasts of overcast verified as 0% sunshine, three forecasts of sunny with cloudy periods verified as 89, 66 and 22% while one forecast of cloudy with sunny periods verified as 40%. The BPQ score was 4371 compared with the climatological score of 20216. This would amount to 79% of the variance explained. The climatological forecasts are obtained from data of monthly mean hours of sunshine.

**Table 2.** Sample verification of sky cover forecast for June 17, 1977.

Station	Total Possible Sunshine	Hours of Sunshine	Sunshine Percentage	Forecasts	Climat	
	Tenths of Hours	Observed				
EC	173.20	12.00	69	999	45	EC
MT	163.70	999.00	999	0	45	MT
VP	178.90	8.10	45	999	40	VP
HR	163.70	3.30	20	999	45	HR
PH	178.90	17.10	96	999	35	PH
GL	171.30	15.30	89	85	45	GL
MW	157.70	.00	0	0	55	MW
NM	163.70	.00	0	0	45	NM
MX	157.70	.00	0	0	50	MX
YY	162.20	3.60	22	85	45	YY
UL	157.70	.00	0	0	50	UL
NI	160.40	16.20	96	999	45	NI
PT	160.70	999.00	999	0	45	PT
PN	163.70	15.30	93	999	45	PN
GW	173.20	16.60	96	999	40	GW
QB	159.20	.00	0	0	45	QB
FQ	162.20	10.70	66	85	40	FQ
OH	157.70	.00	0	0	50	OH
KL	173.20	7.00	40	35	40	KL
ZV	163.70	999.00	999	85	50	ZV
VO	160.70	.00	0	0	50	VO

999 Indicates missing data

Number of stations verified		11
Sum of square of errors	BPQ	4371
	Climat	20216

Verifications over a two week period indicate an average of 66% variance explained. We do not yet have sufficient data for a summary but on seeing these preliminary verifications, can state with optimism that this verification should serve as an efficient and effective sky cover verification. Errors in the forecasts are immediately obvious, feedback is rapid and can be used in discussing errors in other forecast parameters.

The second stage in this project will be to attempt to forecast the percent of possible sunshine. This will eliminate in great part the ambiguity and misunderstanding of our present terminology. It should be useful to a sophisticated clientele who are able to take advantage of this sort of data. In the emerging area of emphasis on energy conservation, and solar heating, the percent of possible sunshine forecasts could be quite applicable.

### CLIMATOLOGICAL AWARD PRESENTATION By F.G. SMITH



*Photo/Photographie: Allan F. McQuarrie*

As one of eight weather observers in British Columbia who were chosen to be presented with an award for meritorious service, George Murdoch (RIGHT) accepts award from F.G. (Gil.) Smith, Officer in Charge of the Regional Climate Data Centre, Victoria.

Mr. Murdoch operates a weather station at his home, 2240 Beach Dr. A spry 84, he was not satisfied with being limited to measuring the rain. He has installed at his own expense a thermometer screen and various thermometers and he has not only designed and installed a device to record rainfall but also the time it starts and ends. He takes barometer readings regularly and to provide wind data he has reconstructed a discarded anemometer and indicator. In addition to his hobby as a weather observer, he has had an active retirement, serving thirteen years as an Oak Bay councillor, five years as Mayor and a member of the police commission for four years. He is certainly a most worthy recipient of this annual award.

## AES gets new Assistant Deputy Minister

The Atmospheric Environment Service's new Assistant Deputy Minister is Dr. A. E. Collin, previously ADM of Ocean and Aquatic Sciences, Fisheries and Environment Canada. Dr. Collin has now assumed his responsibilities and will work out of his Hull, Qué. office in the Fontaine Building. He will also maintain an office at AES headquarters in Toronto.

On announcing the appointment, Deputy Minister J. B. Seaborn sent the following message to Dr. W. L. Godson, then Acting ADM of AES: "It will be a new experience for AES to have as its ADM someone who has not come up through the ranks of the service. I am convinced that AES will respond well to this situation, primarily because of the very fine qualities — as a scientist, as a manager, and as an individual — of Dr. Collin, who is well known to many of your people. He is highly respected within the Public Service of Canada, within this Department and, I have reason to believe, within AES, and I am confident that you and your colleagues in AES are going to enjoy working with him."

As indicated in this message, Dr. Collin is not a new face around AES, and certainly no newcomer to the worlds of science or management. His track record speaks for itself. At 48, Dr. Collin has already been ADM of Ocean and Aquatic Sciences for three and one half years. Previously he was director general of the Marine Sciences Directorate, Department of the Environment.

As a scientist, Dr. Collin was in charge of the arctic research program at the Bedford Institute of Oceanography, and served as senior oceanographer on the staff of the director general, Maritime Forces. After this tour of office he returned to the Department of Energy, Mines and Resources as Dominion Hydrographer.

While with the Fisheries Research Board as a research scientist, Dr. Collin was assigned to the Defence Research Board to participate in the International Geophysical Year Oceanographic Program in the Arctic Oceans.

Dr. Collin obtained his Ph.D. from McGill University in 1961. He had previously graduated with an M.Sc. degree from the University of Western Ontario in 1955. Dr. Collin is also a graduate of the National Defence College (1970).

Dr. Collin is married and has three children.

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## Le nouveau sous-ministre adjoint du SEA entre en fonction

C'est M.A.E. Collin, auparavant sous-ministre adjoint des Sciences océaniques et aquatiques, Pêches et Environnement Canada, qui est le nouveau sous-ministre adjoint du Service de l'Environnement atmosphérique. M. Collin, qui a maintenant assumé ses fonctions, aura un bureau dans l'immeuble Fontaine à Hull (Québec) et un autre à l'Administration centrale du SEA à Toronto.

Annonçant cette nomination, M. J.B. Seaborn, sous-ministre, a envoyé à M. W.L. Godson, alors sous-ministre adjoint intérimaire du SEA, le message suivant: "Sous la direction d'un sous-ministre adjoint qui ne sort pas de ses

rangs, le SEA se trouve dans une situation tout à fait nouvelle et je suis persuadé que ses réactions seront très favorables ne serait-ce qu'en raison des qualités de M. Collin dont la réputation de chercheur, d'administrateur et d'homme l'a précédé au SEA. Il a su se faire respecter dans la Fonction publique du Canada, au Ministère et, tout me porte à croire, également au SEA et je suis persuadé qu'il sera extrêmement agréable, pour vous-même et pour vos collègues, de travailler avec lui".

Comme l'indique ce message, M. Collin n'est pas un inconnu au SEA et ne fait certainement pas figure de nouveau venu dans le monde des sciences et de la gestion comme en témoignent ses activités passées. A 48 ans, il a déjà été sous-ministre adjoint des Sciences océaniques et aquatiques pendant trois ans et demi. Auparavant, il était directeur général de la Direction générale des sciences de la mer du ministère de l'Environnement.

En qualité de chercheur, M. Collin était

responsable du programme de recherche sur l'Arctique de l'Institut d'océanographie de Bedford et océanographe principal du directeur général des Forces maritimes. Après cette période de service, il est retourné au ministère de l'Energie et des Ressources en qualité d'hydrographe fédéral.

Alors qu'il était chercheur à la Commission de recherche sur les pêches, M. Collin a été affecté à la Commission de recherche sur la défense

pour participer au programme océanographique dans les mers arctiques dans le cadre de l'Année géophysique internationale.

M. Collin qui détient un doctorat de l'université McGill depuis 1961, avait obtenu une maîtrise ès sciences à l'université Western Ontario en 1955 et est sorti du Collège de la Défense nationale en 1970.

M. Collin est marié et père de trois enfants.

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*IN MEMORY*

**JOHN CYRIL (CY) GRADY**

**MARCH 30, 1910 TO MAY 31, 1977**

Born in Hartford, Wisconsin, Cy joined the "Meteorological Branch" in Lethbridge during the war years. He was a graduate of the first presentation course in 1962. Besides Lethbridge, his service time was spent as officer-in-charge, Fort St. John and as a presentation technician at the Calgary Weather Office. Cy retired from the Atmospheric Environment Service on December 31, 1974 after 32 years of continuous service.

Cy was stricken with diabetes at a very early age and was among the first Canadians to be treated with insulin. Although his formal education started late, he made up for it by hard work.

He was a journalist prior to entering the Meteorological Service. After retirement he was enrolled in studies at the University of Calgary.

Cy will long be remembered by his many friends for his keen interest in sports and his devotion to his work.

His wife Margaret resides in Calgary.

## KITIMAT TANKER ROUTE INSPECTION

D.A. Faulkner

*Scientific Services, Pacific Region*

The role of the SSU meteorologists is continually evolving. Here on the west coast, as probably elsewhere, SSU meteorologists are becoming more and more involved in environmental assessment of the impact of development of industry. One of the projects in which Pacific Region SSU is involved is the proposed — now postponed — oil port at Kitimat, a transshipment point for Alaska and other offshore crude oil. Thus, as the AES member of the DFE Kitimat Pipeline Environmental Assessment Working Group, I found myself with four others on a dock at Prince Rupert, on a brisk February morning, waiting to board the dragger Wespak which would take us on a three-day trip to Kitimat. EPS had chartered the boat so that members of the Group might observe first-hand the narrow and intricate channels leading to Kitimat. The Wespak, 65 feet in length, proved to be a stout ship and one on which five passengers and a crew of three were quite comfortable.

The first day, we travelled out to the open waters of Hecate Strait. Triple Island was reporting winds of 15 kt and Cape St. James earlier reported winds south at 10 kt, conditions unlikely to frighten any landlubber such as myself. The forecast heard at 1045 from Prince Rupert radio was for winds south 25 kt, nothing unusual for those stormy waters. The forecast was "dead on" but it did not quite prepare me (even with a bottle of Graval pills in my pocket) for the seas that a 25 kt wind blowing over 500 km could raise. From noon until 3:30 in the afternoon, we headed into seas of 1-1.5 m which occasionally reached 3 m. The boat, sturdy and in no imminent danger, began to slam hard on the steep waves. It was not long until two passengers were laid up in their bunks below. Happy I am to report that I upheld the honour of AES by remaining on my feet, but I must confess it was "touch-and-go" before we turned into Kitkatla Channel and berthed for the night at the Indian village of Kitkatla.

Next day, we made our way southward from Browning Entrance through Principe Channel to Caamano Sound, then reversed direction to sail through Squally Channel and Wright Sound to Hartley Bay, another Indian Settlement on Douglas Channel. Our route was that of the proposed tanker route except that the tankers would turn eastward through Otter Channel and cut off the southern part of our route. The day was less stormy than the previous although rain was falling as we started out and stratus hung low over the surrounding mountains allowing us only the odd glimpse of snow-covered peaks. In the afternoon it cleared and we sailed easily over placid waters; Squally Channel did not live up to its name.

On the last day we ran up Douglas Channel and arrived at Kitimat near noon. Again, it was a rainy, misty day although winds everywhere were light. We saw little of the reported splendour of the mountain scenery but were impressed with the steepness of the banks and the difficulty of locating suitable places for anemometer installations. At Kitimat we found snow on the ground, in some places piled 1-2 m high, a striking reminder of the vast difference in climate between the head and the foot of the inlet for there was no snow at sea level anywhere on the coast proper.

My first visit to the B.C. north coast was, for me, a unique experience, certainly not the kind I would have had as a tourist. Because of the trip, I have a better appreciation of the hazards which fishermen, tug-boat operators and operators of other



small craft experience almost daily. Observing the narrowness of the channels, and the twisting route that large vessels would have to follow brought home the difficulties faced by pilots and masters in navigating these waters. Finally, at each stop we had occasion to talk to the local residents, those who would be most vitally affected by the tanker traffic. It was interesting that, almost to a man, they opposed the establishment of the route as it threatened a way of life which city-dwellers such as I have almost forgotten.



1. *The dragger Wespak*  
*Le dragueur Wespak*



2. *Principe Channel*  
*Chenal principal*



3. *Kitimat*  
*Kitimat*

## CONTINUITY OF WEATHER OBSERVATIONS AT TORONTO THREATENED

The continuity of the Toronto temperature and precipitation record was threatened for the first time in 137 years on Friday, February 11, 1977, by a fire which gutted the Sir Sandford Fleming Building on the campus of the University of Toronto. The climatological instrument shelter for Toronto is located about 50 feet in front of the building which houses the U. of T. Computer Centre for the Faculty of Engineering.

The fire started at 2:30 a.m. and consumed more than 49,000 square feet of office, lecture and library space by the time it was extinguished. The prime concern of the fire in the building was the computer. But the fire was centred in the northeast wing of the building and the computer itself was unharmed. Most of the Faculty's historical collection was lost in the fire. Even though only the northeast wing of the Sandford Fleming Building was destroyed by fire, the remainder of the complex which comprises the Galbraith, Sandford Fleming and Wallberg Buildings suffered water damage. The water flowed in torrents through the corridors of the Galbraith Building leaving a 1" thick layer of charcoal from the Sandford Fleming roof on the floor of the Galbraith Building's front lobby. Holes were drilled through the sides of the building to alleviate the water pressure; the water was everywhere, lifting tiles and leaving black charcoal behind.

Observations were begun in Toronto in January 1840 in a temporary observatory at Fort York, near Bathurst Street on the lakefront just to the west of the new City of Toronto. In September of the same year the observing site was moved to a new observatory for magnetism and meteorology on the campus of the University of King's College. The observatory was situated near Convocation Hall, University of Toronto and observations were taken there from 1840 until early in 1907. For three years, from April 1907 to August 1909, during the construction of a new Meteorological Office, the observatory was housed in temporary quarters at the corner of Bloor Street and Spadina Avenue. In September 1909 observations were begun at 315 Bloor Street West and remained at this site until July 20, 1972, when the instruments were relocated to their present home — just north of College Street and just east of St. George Street. The instrument area is a level 42 x 52-foot lawn on the west side of the street with the Sir Sandford Fleming Building to the west of the site.

How did the fire affect the temperature observations?

Thermohygraph readings show the minimum temperature was established for February 11 prior to the start of the fire. In order to confirm if the maximum temperature was affected a comparison check was made of the five closest temperature reporting stations. The comparison showed that on February 10 the Toronto maximum temperature was 0.2°C above the mean maximum for the six stations. This difference is less than one would expect between urban and suburban Toronto which lends credibility to uniform temperatures being observed.

What about precipitation?

A check of 28 stations in the area indicated that no precipitation fell on February 10 or 11, 1977. However snow depth measurements had to be taken from another site in the vicinity due to six inches of water from the fire hoses which accumulated in the instrument area and melted the snow. Although the equipment suffered no damage as a direct result of the fire, the Stevenson Screen had to be replaced shortly after due to vandalism.

Credit must be given to the Toronto Weather Observer, Mr. J. Werner, for his dedication in ensuring that the continuity of weather observations was not broken.



## *Zephyr interview:* *Dr. A. E. Collin*

Dr. A. E. Collin was recently appointed Assistant Deputy Minister of the Atmospheric Environment Service, and has now assumed his new duties. (See also news story page 4).

On the occasion of his first visit to AES headquarters in his new capacity, Zephyr asked Dr. Collin about his impressions of AES, and his plans for the future.

ZEPHYR: Dr. Collin, recognizing that you haven't yet had much of a chance to formulate to any extent views of, much less any plans for the Atmospheric Environment Service and its future, I wonder whether you could nevertheless give our readers some idea of what your first impressions and intentions are at this time?

DR. COLLIN: Obviously, I consider AES a very important part of the Department and an interesting challenge, or I would not have chosen to accept  
*continued overleaf*



## *Zéphir interview* *M. A.E. Collin*

M. A.E. Collin, récemment nommé sous-ministre adjoint du Service de l'Environnement atmosphérique, est maintenant entré en fonction. (Voir également les nouvelles en page 4).

A l'occasion de sa première visite à l'Administration centrale du Service de l'Environnement atmosphérique dans le cadre de ses nouvelles fonctions, Zéphir a demandé à M. Collin de manifester ses impressions à propos du SEA et ses projets d'avenir.

ZÉPHIR: M. Collin, sachant que vous n'avez pas encore eu vraiment l'occasion de formuler votre opinion sur le Service de l'Environnement atmosphérique et ses perspectives d'avenir et encore bien moins de faire des projets, je me permets néanmoins de vous demander si vous pouviez donner à nos lecteurs un aperçu de vos premières impressions et de vos intentions?

*suite au verso*

this appointment. I also consider it a very progressive organization, and one that plays an important part in the fabric of Canadian society.

ZEPHYR: The main thrust of AES activities is currently aimed in three major directions — delivery of daily weather and ice observation services, research, and international commitments. Do you perceive any change in emphasis in these major areas in the foreseeable future?

DR. COLLIN: No, although I do foresee areas where AES may be required to provide new emphasis.

Certainly the provision of weather information is assuming increasing importance in all industrialized countries, including Canada.

ZEPHYR: Apropos the provision of weather services, do you plan on spending any time in the Regions?

DR. COLLIN: I visited the Tuktoyaktuk weather station during the week of August 29 as part of a general tour of the Arctic and particularly of the Beaufort Sea area. I mention this, because it is an indication of my intentions in this regard, which certainly include visits to all Regions in the near future.

ZEPHYR: We are all aware that we are living in times of austerity and that we will have to continue tightening our collective belt — perhaps the Zero A-base review could serve as an example. Could you give an indication of how the services AES is providing to Canadians and the individuals who are providing them might be affected by all this?

DR. COLLIN: It would be premature for me to attempt to relate general government policy to specific AES areas. However, it is certainly obvious that government on the whole continues to be very much concerned with the size of the public service, for example. And, of course, we as tax-payers need to be concerned as well.

M. COLLIN: Si je ne considérais pas le SEA à la fois comme une composante très importante du Ministère et un défi à relever je n'aurais certainement pas accepté cette nomination. Il s'agit également, à mon avis, d'un organisme très progressif qui joue un rôle important dans l'édifice social.

ZÉPHIR: Les principales activités du SEA sont actuellement orientées dans trois grandes directions: les services quotidiens d'observation météorologique et d'observation des glaces, la recherche et la participation aux programmes internationaux. Faut-il, d'après vous, s'attendre à un changement dans l'importance accordée à ces trois grands domaines dans un avenir prévisible?

M. COLLIN: Non, mais il est possible d'entrevoir des domaines auxquels le SEA devra peut-être accorder plus d'importance. La prestation de renseignements météorologiques prend certainement de plus en plus d'importance dans tout les pays industrialisés, y compris le Canada.

ZÉPHIR: En ce qui concerne l'assistance météorologique, avez-vous l'intention de visiter les Régions?

M. COLLIN: J'ai visité la station météorologique de Tuktoyaktuk durant la semaine du 29 août dans le cadre d'une tournée générale de l'Arctique et en particulier de la région de la mer de Beaufort. Je mentionne cette visite parce qu'elle présage mon intention de visiter toutes les Régions dans un proche avenir.

ZÉPHIR: Nous savons tous que nous vivons en période d'austérité et qu'il faudra continuer de se serrer la ceinture collective dans le sillage de l'exemple donné par la révision budgétaire de la base A basée sur une croissance zéro. Pourriez-vous nous indiquer comment les services assurés par le SEA aux Canadiens et les particuliers qui les assurent risquent d'être



*“Obviously, I consider AES an interesting challenge....”*

*“Si je ne considérais pas le SEA... un défi à relever....”*



*“... weather information is assuming increasing importance....”*

*“... les renseignements météorologiques prennent des plus en plus d'importance....”*

**ZEPHYR:** The area of technological change is also one of some concern to a large part of AES employees. Do you have any comments at this time on how increasing mechanization of weather reporting and forecasting will affect the working meteorologist and meteorological technician?

**DR. COLLIN:** As already mentioned, it is my belief that the demand for meteorological services with regard to both current and new applications will increase throughout the industrialized world. Also, meteorological services have traditionally been quick to take advantage of technological change and, in fact, have contributed to bringing it about — one needs to think only of such innovations of the use of satellites or radar to provide weather data, and the highspeed movement of computerized data. I don't see why these factors wouldn't stand to benefit the people now in the field of meteorology. In my view, AES professional and technical staff are sufficiently well trained to be assured of a future as far as their work is concerned.

**ZEPHYR:** On a more personal level, Dr. Collin, your office and your home are now both located in Ottawa, while AES headquarters facilities are in Toronto. Do you intend moving either or both to Toronto in the foreseeable future, or do you intend directing the affairs of AES from Ottawa?

**DR. COLLIN:** My office will continue to be located in Ottawa, and I will also maintain an office at AES headquarters in Toronto. I don't therefore intend to move my family to Toronto at this time.

**ZEPHYR:** Are you planning to commute between Ottawa and Toronto, then, as the need arises, or will you have someone acting on your behalf here in Toronto?

**DR. COLLIN:** Yes, good telecommunications and a fair bit of commuting between

touchés par ces restrictions?

**M. COLLIN:** Il est trop tôt pour que je puisse établir une relation entre la politique générale du gouvernement et les questions qui touchent le SEA en particulier. Mais il est évident que le gouvernement continue d'être extrêmement préoccupé par l'importance de la Fonction publique par exemple. Il s'agit là d'une préoccupation qui nous touche également en qualité de contribuables.

**ZÉPHIR:** Le changement technologique préoccupe également de nombreux employés du SEA. Pouvez-vous nous faire part de vos remarques sur la façon dont la mécanisation de plus en plus poussée de l'observation et de la prévision météorologiques vont modifier la carrière des météorologistes et des techniciens en météorologie?

**M. COLLIN:** Comme je viens de le dire, je suis persuadé que la demande en matière de services météorologiques à la fois pour les applications que nous connaissons déjà et pour de nouvelles applications continuera d'augmenter dans le monde industrialisé. Les services météorologiques ont toujours su tirer parti rapidement des modifications technologiques et y ont en fait contribué. Il suffit pour s'en persuader de penser à l'utilisation des satellites ou de radar pour recueillir des données météorologiques et à la circulation rapide de données par ordinateur. Il n'y a aucune raison pour que ces facteurs ne continuent pas d'être à l'avantage de ceux qui oeuvrent dans le domaine de la météorologie. Il me semble que praticiens et techniciens du SEA ont la formation et l'expérience qu'il faut pour ne pas avoir à s'inquiéter de l'avenir.

**ZÉPHIR:** Votre bureau et votre famille se trouvent actuellement à Ottawa tandis que l'Administration centrale du SEA est à Toronto. Avez-vous l'intention de transférer l'un ou



*"... my intentions certainly include visits to all Regions ..."*

*"... cette visite présage mon intention de visiter toutes les Régions ..."*



*"My office will continue to be located in Ottawa...."*

*"Je continuerai d'avoir mon bureau à Ottawa...."*

Ottawa and Toronto will be necessary on the part of most senior AES managers as well as by myself. To respond to the second part of your

question, no, I do not intend to ask anyone to act on my behalf at headquarters in Toronto.

ZEPHYR: Thank you, Dr. Collin.

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l'autre, ou les deux à Toronto dans un avenir prévisible ou avez-vous l'intention de diriger le SEA à partir d'Ottawa?

M. COLLIN: Je continuerai d'avoir mon bureau à Ottawa, mais j'en aurai également un à l'Administration centrale du SEA à Toronto. Je n'ai donc pas l'intention d'installer ma famille à Toronto pour le moment.

ZÉPHIR: Avez-vous l'intention de faire la navette entre Ottawa et Toronto à mesure des

besoins ou allez-vous nommer un suppléant en votre absence?

M. COLLIN: Il faudra aux cadres supérieurs du SEA et à moi-même un bon système de télécommunications et nous ferons la navette entre Ottawa et Toronto. Je n'ai pas l'intention d'avoir de suppléant à l'Administration centrale à Toronto et ceci répond à la seconde partie de votre question.

ZÉPHIR: Merci pour cet entretien."

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*Dr. Godson presents scroll to Nancy Derco on the occasion of her retirement.*

*M. Godson remet un témoignage de mérite à Mme Nancy Derco à l'occasion de son départ à la retraite.*

*Photo  
Photographie A.W. Smith*

## METEOROLOGICAL SATELLITE IMAGERY INTERPRETATION COURSE AT DND OFFICES

Last February and March two instructors (Oscar Koren and Patrick King) from the Professional Development Division of the Training Branch visited the DND offices at Halifax, Comox and Trenton and presented the Meteorological Satellite Imagery Interpretation Course to the DND meteorologists and technicians. The course which was two days in duration in Halifax and a day and a half in Comox and Trenton was repeated twice at each location to accommodate all the participants.

The training program placed high priority on the interpretation of the cloud elements in terms of cloud types, amounts and étages present and also on the interpretation of atmospheric structures in terms of troughs, ridges, fronts, vorticity maxima, jet streams, and positive or negative areas of vorticity and thickness advection. The course was based on satellite pictures obtained from the NOAA polar orbiting satellite. These pictures are available at 12 hour intervals.

Recently a number of weather offices have begun receiving GOES satellite pictures which are available at one-half hour intervals. This short time interval introduces a new dimension into the interpretation of the GOES pictures. Plans are underway in the Training Branch to explore different ways in which the GOES pictures can be interpreted and made more useful in operational weather analysis and forecasting. Once the preliminary work has been done a GOES Satellite Imagery Users Workshop will be presented, in AES regions and DND offices.



Participants at the first session in Halifax were:

Kiely M. MacDonald, Ronald J. Roesch, Gary W. Myers, Ronald F. Hopkinson, T.A. Danks, Richard M. Crowell, D. Nowell, Gary S. Lines, J. Butters, George Duquette, Barry F. Stenton, William E. Stennett, Donald Bellows, George Wood, C. Fraser MacNeil, Wilfred R. Waite, John A. Brownrigg, Stuart Porter, Gerald Noseworthy, Réal J. Daigle, John C. Pearce, Brian Veale.



Participants at the second session in Halifax were:  
Richard Hill, Thomas P. Mooney, M.L. Champoux, Ralph V. Horne, Ed Loder, William S. Appleby, Thomas S. Dame, David Craig, Eldon J. Oja, P2 MO A. Pearson, Frederick A. Bustard, Robert K. Cross, Ian R. Fancey, Matti Pindam, Charles J. Power, William B. Bailey, Byron D. Brodie, Alan Cottingham, Don Sally.



Participants at the first session in Comox were:  
MCPL A.D. Rochon, John M. Pelto, WO J.S. Mohler, Eric Hyde, Howard H. Wailes, W.L. Ranahan, M. Blake.





Participants at the second session in Comox were:  
SGT Shears C.D., Alton F. Wallace, D.W. Logan, CPL Sears B.E., R.R. Dunkley,  
Richard R. Cooper.



Participants at the first session in Trenton were:  
Kenneth D. Sykes, Charles J. Wendell, D.H. Parkinson, Donald B. Rehberg, Kenneth E.  
McColm, J.B. Anderson.



Participants at the second session in Trenton were:  
Melville H. Prout, Howard D. Haynes, Serge Dupuis, Gary Rideout, John W. Petican,  
G.H. Bennett, H.J. Stone.

## PAWRS

BY

JOHN O'REILLY

Private Aviation Weather Reporting Stations (PAWRS) are now coming on line at an increasing rate and as of September 1977 sixteen of these sites were in operation with observations appearing on the AES telecommunications system. The AES has agreed to provide assistance in the establishment of private weather observing stations at locations as required by DOT. This special assistance is available at those locations not qualifying for government manned full-time or part-time weather observing stations, but where weather observations are needed to satisfy the requirements for an operating certificate and/or to promote the safe conduct of aircraft operations.

Observing standards will be identical to those specified by AES for Arctic Community Airports.

## PERSONNEL

**The following transfers took place:  
Les mutations suivantes ont été effectuées:**

G.M. Shimizu	From:De	Officer-in-charge, Maritimes Weather Office	MT 8
	To:A	Chief, Forecasting, Computers and Communication Systems Division.	
G. Vigeant	From:De	Training Branch AES HQ	MT 2
	To:A	Ontario Weather Centre	
B.J. Konzelman	From:De	Canadian Forces Base, Shearwater	MT 2
	To:A	#22 NRWC Canadian Forces Base, North Bay	
L.G. Sonley	From:De	Canadian Forces Weather Office	MT 3
		Summerside, P.E.I.	
	To:A	Western Region, Edmonton	
A.F. Wallace	From:De	Canadian Forces Weather Office	MT 2
		Comox, B.C.	
	To:A	Arctic Weather Centre, Edmonton	
I. Hamilton	From:De	Canadian Forces Weather Office	MT 3
		Summerside, P.E.I.	
	To:A	Canadian Forces Weather Office, Trenton	
R.J. Nutton	From:De	Canadian Air Group, Baden-Soellingen	MT 3
	To:A	Arctic Weather Centre, Edmonton	
S. Dupuis	From:De	Canadian Forces Weather Office, Trenton	MT 2
	To:A	Ontario Weather Centre, Toronto	
K.W. Daly	From:De	Alberta Weather Office	MT 5
	To:A	Field Services Directorate AES HQ	
M. Opdebeck	From:De	Goose Weather Office	EG-ESS 6
	To:A	Fort Nelson	
E.W.R. Cullins	From:De	Maritimes Weather Office	EG-ESS 6
	To:A	Goose Weather Office	
D.G. Tatar	From:De	Canadian Forces Base, Winnipeg	MT 2
	To:A	Gander Weather Office	
E.J.G. Guimond	From:De	Bureau météorologique de Frobisher	MT 5
	To:A	La Région de l'Atlantique.	
B.J. O'Donnell	From:De	Ontario Weather Centre	MT 5
	To:A	Meteorological Systems Research Branch AES HQ	



## TRIVIA

### Weather Forecasts

Certain phenomena in the air and peculiarities of birds have long been known to indicate a change in the weather. Many years ago the learned Dr. Jenner embodied these in verse, in reply to an invitation from a friend with whom he planned an excursion the following day. It embodies about all that is known to day (1890) upon that branch of the subject, and we reproduce it as being reasonably correct:

The hollow winds begin to blow,  
The clouds look black, the glass is low;  
The soot falls down, the spaniels sleep,  
And spiders from their cobwebs peep.  
Last night the sun went pale to bed,  
The moon, in halos, hid her head;  
The boding shepherd heaves a sigh,  
For, see, a rainbow spans the sky;  
The walls are damp, the ditches smell,  
Closed is the pink-eyed pimpernel  
Hark! how the chairs and tables crack,  
Old Betty's joints are on the rack;  
Loud quack the ducks, the peacock cry,  
The distant hills are looking nigh,  
How restless are the snorting swine,  
The busy flies disturb the kine;  
Low o'er the grass the swallow wings;  
The cricket, too, how sharp he sings;  
Puss, on the hearth, with velvet paws,  
Sits, wiping o'er her whiskered jaws.  
Through the clear stream the fishes rise,  
And nimbly catch the incautious flies;  
The glow worms, numerous and bright,  
Illum'd the dewy dell last night.  
At dusk the squalid toad was seen,  
Hopping and crawling o'er the green;  
The whirling wind the dust obeys,  
And in the rapid eddy plays;  
The frog has changed his yellow vest,  
And in a russet coat is dressed.  
though June, the air is cold and still;  
The blackbird's mellow voice is shrill,  
My dog, so alter'd is his taste,  
Quits mutton bones, on grass to feast,  
And see yon rooks how odd their flight,  
They imitate the gliding kite,  
And seem precipitate to fall—  
As if they felt the piercing ball.  
'Twill surely rain, I see with sorrow,  
Our jaunt must be put off tomorrow.

From An Almanack Circa 1890

## DES PROVERBES QUÉBÉCOIS

“Qui va à la pêche perd sa chaise.”  
Qui s’absente perd sa place

“Il faut toujours avoir deux cordes à son arc.”  
Il faut toujours avoir plusieurs possibilités devant soi.

“Ce n’est pas le plumage qui fait l’oiseau.”  
Ce n’est pas l’apparence qui détermine la valeur de quelqu’un.

“Les meilleurs chemins sont toujours les plus courts.”  
Les meilleurs solutions sont toujours les plus simples.

“Le rossignol ne fait pas le printemps.”  
Un seul indice ne prouve pas le fait.

“Le soleil reluit pour tout le monde.”  
La chance est égal pour tous.

“Qui dort dîne.”  
Le sommeil nourrit autant qu’un repas.

“Quand la manne passe, il faut la prendre.”  
Quand la chance se présente, il faut en profiter.

“Avec une langue on peut aller à Rome.”  
Les beaux parleurs réussissent partout.

“Tout arrive à point à qui sait attendre.”  
Tout vient en son temps.

## HUMOUROUS HEADLINES FROM THE MARITIMES

- 1977 — Little Bo Peep has her eyes checked.
- 1969 — Nanook Iglook opens first parka lot.
- 1901 — Fisherman invents spray net.
- 1588 — Spanish Armada sinks to an all time low.
- 1861 — Gallows in disrepair, condemned man finds that no noose is good news.
- 1970 — Navel oranges banned in Boston.