Environment Canada Environnement Canada

Atmospheric Environment Service Service de l'environnement atmospherique

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AES staff were "true Olympians"



Bruce Thomson, coordinator for the OSWO is seen at the Environment Canada Weather Information Centre at Nakiska in the Rockies. The Olympic games trace their origins back to Mount Olympus in Greece, home of Zeus, father of the gods and no slouch when it came to throwing his weight around with the weather. Meteorologically speaking, the modern Olympians are the AES personnel from several parts of Canada who ran the specially estabished Olympic Weather Support Office in Calgary this February. Their presence in the city was not only essential; in some cases it was critical. Excessive winds, warm temperatures and lack of snow were just some of the weather phenomena they had to face and they provided a second to none, 24-hours-a-day weather service to hundreds of athletes, organizers and spectators. As a tribute to these AES personnel, as well as to certain of their close associates, Zephyr runs these on-the-job Olympic pictures.

(See pages 4-5)

Ski jumpers depended on AES forecasts

by Ken Preston

Ski jumpers may be flaky but stupid they are not. Cross winds of 18 k/h they don't buck. Backs break easily. Gusts of 50 k/h are definitely suicidal. Takeoff, flight and landing on a 90m hill in that kind of gale are shunned.

On Day 4 of the Calgary Olympics, forecaster Lou Berthelot, brought in from Toronto to be part of the Olympic Support Weather Office was compelled to warn Olympic 90m jump organizers of stiff winds likely to hit Calgary Olympic Park during that event.

The night shift issued the first wind advisory and Lou faced the big brass of the winter Olympics at 8 a.m. Riding on his forecast was a real threat to the jumpers — and the prospect of turning away 50,000 spectators who had paid mucho dinero for that event.

Wind gusts at the top of Nakiska would reach 130 k/h but wouldn't be any trouble for the men's slalom, should it be started lower down the hill.

But, said Lou the 90-metre team competition at the park was threatened by 50 klick gusts. "They didn't look overjoyed but they cancelled the event and warned off the spectators four hours before the first scheduled jump". Organizers needed 45 minutes of calm weather for the jumpers on Day 4 but Lou said it wasn't likely. 30 kilometre winds would be present at the bottom of the jump too, he warned. Crosswinds of 18 k/h are not acceptable to jumpers.

The forecast was vindicated. The winds they did blow — for just about the length of time the weather support group had predicted. But being right brought no joy, although it wasn't the weather office job to cancel the event.

Calgary's testy weather, with its blessed February chinook winds will try any forecasters' skills, said Brian Bowkett, AES forecaster brought in from Edmonton. He maintains that Calgary's proximity to the mountains and to rocky Banff National Park present forecasters with greater challenges than anywhere else in Canada. "Parameters used elsewhere don't work here". Brian said, adding to the belief that Calgary forecasters had the most interesting jobs in Canada.

Mr. Preston is a communications officer with the Canadian Parks Service.



Part of the luge run at the Calgary Winter Olympics.

Minister honors PEI weather forecasters



Environment minister Tom McMillan (centre) presents Achievement Award certificates to AES employees Jim MacEwen (left) and Alva Clarey for services above and beyond the call of duty.

At a special ceremony held in the Charlottetown, PEI weather office on December 18, two AES employees received Achievement Awards from Environment Minister Tom McMillan.

Jim MacEwen and Alva Clarey, both natives of Prince Edward Island received their citations as a result of performing duties during severe snowstorms "above and beyond the call of duty".

Mr. MacEwan was commended for his efforts on January 31, 1987 when 48 cm. of snow and winds gusting to 93 km/h blocked all roads. Jim had to enlist the aid of a snowplough to cover the four kilometre distance to work in one and a half hours. Once there he remained on duty for 32 hours during which time he provided regular weather reports to the media.

Mr. Clarey reported six hours ahead of time for his early morning shift because of a severe February snowstorm. Road and weather conditions became so bad that he was forced to remain on duty for a total of 48 hours. During this period he supplied regular reports to the media.

During the presentation, Jim Spears, OIC at the Charlottetown spoke of the efforts of employees in essential services who often had to perform under challenging circumstances in times of environmental crisis.

This is the first time that the Minister has handed out achievement awards to AES weather office employees.

Eureka, Mould Bay Part of High Arctic Studies Program

The Association of Canadian Universities for Northern studies is selecting four graduate students from Canadian universities to conduct environmental studies at the Eureka and Mould Bay high arctic weather stations.

According to Environment Minister Tom McMillan the new program will, provide students with technical support for scientific research in these remote but vitally important areas of Canada, enabling them to become involved in pioneering work at two of Canada's "state-of-the-art meteorological centres".

According to the announcement, each successful applicant will be required to submit semiannual reports on research progress and to perform light weather station duties in exchange for technical support and services valued up to \$40,000. The amount includes board and lodging for up to 365 days over a three-year period and return transportation from Resolute Bay.

Zephyr Readers' Aid Sought in Lahr Anniversary Project

Did you serve with Canadian Forces Weather Services in Europe some time during the last 35 years? If so, Major Blaine Jelley, staff officer, Meteorology, with the First Canadian Air Group (1 CAG) Headquarters in West Germany would like to hear from you. He also wants to learn if you know of any AES personnel posted to one or more of the overseas Canadian Forces weather offices during this period.

Major Jelley, an AES employee seconded to the Canadian Forces Weather Service, is making the appeal as part of a project to commemorate the 20th anniversary of Lahr, a base weather office located in the Black Forest area of Germany.

The idea of chronicling the names of all Canadian meteologists and meteorological technicians who served in Europe since the early fifties was begun at Baden-Sollingen, another Canadian Forces base about 50 kilometres from Lahr. Major Mike Hawkes, then responsible for weather services at the base, now at D Met OC in Ottawa, undertook the task as part of Baden-Sollingen's 30th anniversary celebrations in 1983. He says that until then no record of the names and numbers of Canadians practicing meteorology at the bases had been kept. After exhaustive enquiries Major Hawkes had the names inscribed in a leatherbound quest book which can also be signed by AES personnel who happen to be visiting their former base

Major Jelley who holds a similar weather services position at Lahr, writes that the information for Baden-Sollingen, now celebrating its 35th anniversary as a Canadian base, is now virtually complete. But he still needs the names and years of service of those who served at Lahr and other Canadian bases in Europe. He asks any Zephyr readers with this information to send details to:



The town of Lahr, West Germany, site of Canada's main NATO base.

Major G.B. Jelley, Staff Officer Meteorology, 1 Canadian Air Group Headquarters, CFPO 5000 via Belleville, Ont. KOK 3R0

Blaine Jelley and Peter Scholefield, his predecessor as OIC Meteorology at Lahr, now head of Monitoring and Prediction at the Canadian Climate Centre, AES Downsview, have compiled some miscellaneous background information on the Canadian Forces weather bases:

- An estimated 150 AES meteorologists in uniform and 250 military Met. Techs have served

in Europe. Currently there are seven meteorologists and eight Met. Techs at the Baden-Sollingen Forecast Centre and one meteorologist and 11 Met Techs at Lahr.

- The principal users of the 24-hour weather observation, forecast and briefing services are three 1 Canadian Air Group squadrons and an assortment of Air Transport Command aircraft.

- Additionally, during parts of the period 1952-1970, under the military command of 1 Air Division, there were weather offices at North Luffenhanm, England; Marville, Grostenquin and Metz in France and Zweibrucken, Germany. The only remaining Canadian Forces Weather Offices in Europe are at Lahr and Baden-Sollingen.

-The weather offices at 1 Air Division and 1 CAG wings or bases have provided a combined total of about 100 years meteorological service.



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Five Achievement, 22 Long Service Awards Handed Out



Achievement Award winners with ADMA from left: Ray Jackson, Alex Aldunate, ADMA Howard Ferguson, Earle Robinson, Gunar Ilzins, Cal Carter.

The AES Downsview Auditorium was filled to capacity on January 26 when dozens of friends, colleagues and managers came to see 22 AES personnel honored in ceremonies presided over by ADMA Howard Ferguson.

Mr. Ferguson spoke at greatest length about the five AES Achievement Award winners whose efforts as ADMA reminded his audience, achieved outstanding results of significance to AES. In addition he said their ideas assisted the Service in improving productivity, efficiency and effectiveness, contributing to better employer-employee relations.

He presented Achievement Awards to: Alex Aldunate who for 16 years has been essentially on call 24 hours a day to solve difficulties at the Stellite Data Laboratory. Since the late 1970s he had only been able to spend one or two Christmasses with his family. Often he manned the Lab during holiday periods by himself. His dedication and sense of responsibility were the reason for the high level of availability of Satellite Data Lab products.

To Cal Carter for his high quality financial advisory service over many years and consistently working long extra hours under high pressure without overtime. In at least five major X-budget exercises, the Zero-A=Base and the Nielsen review he provided urgently needed financial information and analyses under extremely tight deadlines. In the current fiscal year he provided additional support to management for strategic and capital planning.

To Gunar Ilzins for his outstanding contributions to the Service's Upper Air Program. Between 1984 and 1986 he undertook the installation of 32 hydrogen generators with an unparalelled safety record and received requests for assistance from the World Meteorological Organization including a trip to Burma to overhaul a generator there. To Ray Jackson for outstanding contributions to the Service in the field of personnel. Working in the Department since 1975 he served as a staffing officer, a section head and currently as chief of Classifications. In the past year he played a key role of reviewing the EG classification. His energy and creative ideas have been extremely valuable at the service, departmental and at Treasury board levels. Ray also took on management of the AES Official Languages Program and made major contributions to the strategic Plan.

To Earle Robinson for outstanding contributions to the design of a prototype weather data system for China's Meteorological Service. He was selected to assist the International Civil Aviation Organization (ICAO) in meeting their plan to upgrade China's Aeronautical Meteorological Services. By doing this Earle increased the stature of AES in the eyes of ICAO and the People's Republic of China.

In addition to the above Achievement Awards. Mr. Ferguson handed out Long Service Awards to the following AES staff:

35 years service: Pete Chirka, Bill Johnson, Cliff Crozier, Bill McNaughton and Jim Davis.

25 years service: Ed Filipek, Tom Chivers, John Comeau, Dave Carr, Matt Stauder, Marvin Olson, Larry Wiggins, Tom Hacking, Ron Houghton and Lloyd Rader.



Thirty-five year long service personnel left: Pete Chirka, Bill Johnson, Howard Ferguson (ADMA, presiding), Cliff Crozier, Bill McNaughton, Jim Davis.

100 guests wish Ray Fichaud a happy retirement

Around 100 friends and colleagues gathered at the officers' mess at the St. Hubert Armed Forces Base on October 28 to say farewell to Raymond Fichaud on his retirement after 20 years as director of AES Quebec Region and 38 years service with the federal government.

With Normand Guerin, officer-in-charge of the Dorval Weather Office acting as master of ceremonies, the room was filled with present and past employees of AES Quebec Region, AMC members, Weather Services Directorate staff, personnel of other government departments and a wide variety of other well-wishers.

After a gastronomic meal, Raymond Guerin presided over a high spirited roast and the handing out of numerous gifts, including an electric shoe polisher, a guilded aneroid barometer, a copper rain gauge and several bottles of wine.

Many good will messages were read to Ray Fichaud including one from retired Pacific region director Jack Mathiesdon who described him as "exemplifying all the qualities of a successful Regional director".

Before becoming Regional director in 1967, Mr. Fichaud served among other things as chief of Weather Services Division, AES Quebec Region; as senior staff officer, Meteorology, Air Transport Command, 1963-66; as senior meteorologist aboard the aircraft carrier HMCS Bonaventure (1959-62) and as a forecaster at Dorval, Goose Bay and the Canadian Meteorological Centre, Dorval, 1953-57.

He was a member of the Nielsen Task Force in Program Review and was engaged for 10 months in 1981 on a Strategic Planning Exercise for AES He holds a B.Sc from the University of Montreal, an M.Sc in nuclear physics from the same university and an M.A. in Meteorology from the University of Toronto.



Retiring Ray Fichaud receiving tokens of appreciation from ADMA Howard Ferguson.

AES staff were "true Olympians" continued



Lou Berthelot, officer-in-charge of the Toronto Weather Office, seconded to The Olympics Weather Support Office (OSWO) for the duration of the games is seen inputting data for the benefit of a cameraman with CBC's the National.



Eddy Walsh a weather services specialist from Quebec City, who worked in the special Olympics weather office is seen reading a wind sensor.



Brian Bowkett, a meteorologist from Edmonton engages in forecast preparation at OSWO.



John Yarema, OIC Calgary Weather Office, studies a current weather map.



Janine Abar is seen working at the Calgary Weather Office. Looking on is Earlena Dawson, attached to the office during the games.



Mitch Kallauer and John Schneider, attend the inauguration of METSIS/ MPDS.



Practice skiers walk to the downhill slopes before the opening of the Calgary Winter Olympics.



Don Finch, meteorologist provided by the U.S. National Weather Service, normally works out of Anchorage, Alaska.



The regular Calgary weather office was kept busy during the games as Brian Stifora, a climatologist working at this W04 demonstrates.



Andre Lachapelle, manager of the Olympic Weather Support Group, served as Canadian meteorologist at the Los Angeles Olympic games in 1984.



Bob Porter, also of the Calgary Weather Office is seen reading a barograph.

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Environment minister Tom McMillan (left) meets regional director AES Western Region, Brian O'Donnell on the occasion of the minister's visit to AES in Calgary during the games to inaugurate the METSIS and MPDS internal communications systems.

Olympic Support Weather Office was well named

by Ken Preston and Bruce Thomson

AES picked its Olympians in June and shipped themoutto Calgary just before the OLYMPIC Games.

None jumped, non luged, nor slalomed, nor curled and they weren't seen in the pairs' dancing events either.

They were the OSWO's — Olympic Support Weather Officers . . . part of the Organizing Committee for the Olympics (OCO '88). They were there to provide pinpoint forecasts for events organizers. On their heads rested Canada's reputation and certainly Calgary's for running an Olympic winter games that were to be as "weather-proofed" as any competitor could hope for.

Eighty five applicants put their dibs in for the Games and AES picked 16 specialists with experience in mountainous terrain, presentation techniques, operational forecasting and special programs. Two meteorologists from the U.S. National Weather Service were also invited to join the Canadian group.

Under the experienced eye of André Lachapelle, one of two Canadian meteorologists at the 1984 Olympic Summer Games, the Olympic Weather specialists from across Canada would complement each other to form the Olympic Support Weather Team.

The Olympic Weather Service was split into two distinct parts: an essential service to maintain a weather advisory and warning program, and a discretionary service to meet the particular needs of the OCO '88. The complex nature of this service and the requirement for a high level of detail saw the formation of the Olympic Support Weather Office (OSWO). This office was based on the traditional weather centre configuration with meteorologists and presentation technicians combining their skills to deliver a comprehensive, highly tailored service. To fulfil the OCO '88 program, Olympic Weather Information Centres (OWIC) were established at the three outdoor venues: Canada Olympic Park, Nakiska and Canmore Nordic Centre. These smaller offices were staffed by presentation technicians to provide special weather consultations to OCO '88 officials, coaches and athletes.

The Olympic Support Weather team seconded members from every AES region. Team members were assigned to the forcast office to ensure the special skills of each individual were used to the fullest extent possible.

The main weather office, OSWO, produced forecasts and information bulletins for use by the presentation staff and the OWIC offices. All of the services from OSWO were bilingual and supplied on a continuous 24-hour a day basis. The information centres, OWIC, were staffed by a single presentation technician for approximately eight hours to complement venue operations. Weather briefings to the various team captains' meetings were conducted in the evening, requiring many of the presentation staff to return or extend their shift.

To adequately address the weather needs of OCO '88, a presentation technician would travel to the Olympic Operation Centre at City Hall in downtown Calgary every morning to provide up-todate weather information to the OCO '88 executive officers. Occasionally, these weather specialists were asked to accompany these officers to other strategic debriefing sessions or media press events to discuss weather-related concerns.

Long before the start of the XV Olympic Winter Games, experts from the many Olympic events were surveyed to determine the requirements for special weather services. Through these information gathering exercises, the details of the weather information and forecast program was developed.

Staff rundown

AES Western Region's Bruce Thomson coordinated the special Olympics weather program. Andre Lachappelle from Edmonton managed it for the two-week period and others who formed part of the Winter Olympics weather support team included Jim Abraham from AES Atlantic Region, Lou Berthelot, Eddy Walsh from Quebec, Dale Marcicki from AES Central Region. AES Western Region was represented by Brian Bowkett, Jean-Marc Couturier, Ken Nelles, Gerard Neault, Mike Purves, Jim Ross and Reinhold Winterer. Monitoring at the venues were Dan Morrison (Victoria), Jim Steele (Whitehorse), Bob Rawson (Vancouver), Keith Rogers and Jim Ostrander (Calgary).

Helping out were two U.S. forecasters Steve Todd from Seattle and Don Finch of Anchorage, Alaska. Andre Bellocq of France, where the next Winter Olympics will be held, was there was an observer.

Alex Chisholm named new Director General of AES Research



Dr. Alex Chisholm, has been appointed to the position of director general, Atmospheric Research Directorate, AES, it has been announced by Dr. G. A. Sainte Marie, deputy minister of Environment Canada.

Dr. Chisholm was previously director of Atmospheric Processes Research Branch since January 1979. Prior to that he occupied various positions in the Meteorology field while completing his studies. From 1974 to 1979 he was chief, Cloud Physics Research Branch.

In 1962 Dr. Chisholm completed a B.Sc. in physics from the University of Alberta. He then obtained a Master's and a Doctorate degree in meteorology from McGill University. In 1980 he completed the National Defence College course.

Official trip to China was hassle-free

part one by Jim McCulloch

For some three week last September, several AES staff had the rare opportunity to sample the meteorological science, the culture and history, the cuisine and the hospitality of the People's Republic of China (PRC) where we spent 12 days and the rest of the time in Hong Kong. The trip was to comply with the terms of a Memorandum of Understanding (MOU) between the AES and the State Meteorological Agency (SMA) of the PRC, which calls for reciprocal visits every second year of the Steering Committee and additional staff. The Chinese will visit Canada in 1989.

The official delegation consisted of

Over 1 billion people in China, and I feel that we may have seen almost half of them. It took almost 24 hours to get to Hong Kong, and we all felt a little like a boiled owl. It was an experience that none of us will forget, an experience of a lifetime.

The official part of the trip has been reported in a number of ways. I shall focus on the "personal" side, the part that I had never dreamed would happen to me. We were guests of the Government of China from the time we arrived in Guangzhou (Canton) until we left, and that meant that we did not have many of the hassles that the ordinary tourist might face. When the representatives of the SMA return in 1989, they will be our guests, and we shall be hard pressed to live up to the standard of hospitality that we were shown.

Although we had no choice of food (the meals were pre-arranged), hotel, transportation, or sight-seeing, in retrospect that was good. It was

Howard Ferguson (ADMA) and this writer (CCDG) as the Steering Committee, Jean-Guy Coté (AIA) as the AES Coordinator for International Affairs, and Des O'Neill (MAED) and Barry Goodison (from CCAH) as leaders of two of the cooperative projects being carried out under the terms of the MOU. The delegation also included Janet Ferguson (Howard had to cover all of her expenses). We were joined by AI Lo (from the Air Quality Research Branch) part way through the trip because he was there giving lectures anyway, and besides, he can speak the language.

our first visit, and except for AI we couldn't speak the language, so having those decisions made for us saved much wear and tear on nerves and digestion. We were accompanied everywhere except Beijing by Madame Chen, the Director for International Affairs of the SMA. This made our group large enough that there was always an excellent selection of dishes available from which to choose. We even preferred a Chinese style breakfast, although we had much trouble convincing the staff at the hotel in Beijing of that.

Our itinerary was busy. We took the train from Hong Kong to Guangzhou on September 10, flew to Hangzhou (Hangkow) on the 12th, train to Shanghai on the 14th, by air to Beijing on the 16th, air again to Guilin on the 20th, then air to Guangzhou and train to Hong Kong on the 22nd.

Our departure from Canada was Labour Day, arriving in Hong Kong late the next evening. The temperature was in the mid-thirties, and the humidity high; the contrast with the interior of the aircraft



The official AES party and their hosts first row left to right: Zhou Xiuji, A.D.J. O'Neill, Zhang Jijia, H.L. Ferguson, Zou Jingmeng, J.A.W. McCulloch, L.T. Reissner, Chen Guofan. second row left to right: Chew Deijan, Chew Futao, B.F. Goodison, Wang Dingxin, J.G. Coté, Li Zechun,

Chew Dejian, Chew Futao, B.E. Goodison, Wang Dingxin, J.G. Coté, Li Zechun, A.K. Lo, Zheng Yunjie, Zhang Shizhong.



Enjoying the shade on a hot day are Madame Chen, chief protocol officer for the State Meteorological Agency, Howard Ferguson and his wife Janet.

which had been our home for the over thirteenhour flight from Vancouver was marked. The airconditioned limo belonging to the hotel was very welcome.

Next morning, we had a chance to wander the colourful streets of Kowloon, a mainland part of the colony. Our entry into the PRC was not until the next day; we had been able to save \$1200. on the air fare by leaving the day early. In retrospect, I was glad to have that day to help get my body across all those time zones; Hong Kong is 12 hours ahead of Toronto. It also gave us a chance to scout some of the shopping and to take the STAR FERRY across the harbour to see a little of the island of Hong Kong. At about 12 cents (Canadian) for "first class", it is one of the best transit bargains around.

The train to Guangzhou is the only way to go! After clearing Hong Kong Immigration one finds the right car and seat. On the "fast train", all seats are reserved. It takes about one hour to pass through the New Territories (a part of the colony on the mainland) to the only stop between the main Hong Kong terminal and Guangzhou at the border, to pick up members of the Chinese army. The rest of the journey was through the countryside. The contrast of the scenery with the cities at both ends could not have been more marked. There were people working in the rice paddies, riding bicycles and driving primitive tractor-like vehicles along the roads, and watching the train pass the small villages, but the population density was clearly a small fraction of that in the cities. Where do they find the space for more than a billion?

Shortly after departure, a lady came up the car with a little trolley, apparently selling plastic mugs with lids and small envelopes. She could speak no English, and we had not yet met our escort from the SMA. Fortunately, Jean-Guy had the right idea; we bought. Then several minutes later, she came back through the car with a huge tea kettle, and filled the mugs. As most of you will have guessed, we let the contents of the envelopes (Jasmine tea leaves) steep with the lid on until it was time to sip. The refills came two more times; it was a pleasant way to pass the time as one drank true Chinese tea while drinking in the scenery.

China trip cont'd.

Rice paddies stretched in all directions; primitive, but effective, water distribution systems ensured adequate irrigation. Periodically there were larger ponds that were used for bathing by both children and adults. There was practically no mechanization visible except for the occasional truck along the roads. The villages were small and dotted the landscape. How different was Guangzhou!

We were met at the station by Madame Chen and officials of the Regional Office. One of those was a staff officer whose sole job was to ensure that all of our arrangements were covered. He could speak no English, but that didn't stop him from chattering to us frequently, always with a broad smile. (On our way back through Guangzhou, he was among the group that met us at the airport and took us to the train station. As he sat across from me, he pointed and said "Mr. Macaluchi". Howard taught him to pronounce my name, which apparently was somewhat difficult for many of the Chinese we met.)

Our hotel, the Dong Feng, was superb. Here we met for the first time the insulated container of



Riverboats like this photographed by Jim McCulloch are a very common sight on the waterways of China. boiling hot water — you don't drink from the taps. We soon discovered that to drink the water from this container in a form other than tea, you had to pour some out into the mugs provided well ahead of time to cool. The problem at the Dong Feng was that the staff was too efficient by far; every time we left the hotel, they would go into the rooms to straighten up and provide fresh boiling water, pouring our cooling water out and replacing the mugs with clean ones.

It was in Guangzhou that we were introduced to two of the principal characteristics of the PRC; the bicycle is the "volkswagen" of the Chinese people, and visitors are expected to leave much of their excess travelling funds at the "Friendship Store", one of which exists in every city that we visited. The latter will accept only "Foreign Exchange Certificates", or FEC; this has the same value as the currency of the country, the Renminbi, but can only be obtained from the government in exchange for hard currency. There is no trouble obtaining FEC, and one must sell it all back to the state upon leaving. Needless to say, there were many offers on the street to exchange our money, but we had been warned that to do so, getting a higher rate than the official one, was viewed by the government the same as dealing in drugs. Because many imported amenities were available only in the Friendship Stores, citizens were eager to get some FEC.

There were bicycles everywhere, except on the sidewalks which were often not wide enough to accommodate the pedestrians. In the centre of the road there was a constant stream of lorries, busses, vans and the occasional car (often carrying a VIP). Between the vehicles and the sidewalk, there were as many as five lines of bicycles plus those pedestrians that could not fit on the widewalk. The pace of the cyclists was not fast; slow and steady gets one there on time. The bicycles seemed to ignore the vehicles, and except for the occasional expletive from the driver, vice-versa. Our drivers were all excellent, even though they all learned at



Bicycles are the most prominent feature of this street scene in Guangzhou, China.

the Kamikaze School of Driving. The vehicles had three speeds, but only two were used much of the time — flat out and stopped. I quickly learned that my nerves would not stand looking out to the front; the near misses were very frequent, and I did not relish the thought of witnessing the total destruction of one or more bicycles and their riders. In all the time we were there, the vehicles which transported us did not get as much as a scratch.

The highlight of Guangzhou for me, apart from the official visits, was the food. In Canada, there are many places which serve "Cantonese" food, but I have never tasted anything like the original. The wide variety of delicate flavours complemented each other in a very enjoyable way, and the service was impeccable. I had little difficulty avoiding wheat (one of my allergies), especially with the help of Madame Chen, (and Al Lo once he joined us in Hangzhou). For most of the group, the beverage during the meal was local beer, which they assured me was guite good (remember, one did not drink the water). Since beer is one of the things I must avoid, I drank "orange juice". For any of you old enough to remember, it was a lot like the old orange pop (Wishing Well or Orange Crush). What a come down from my usual dinner beverage, wine.

Don Champ receives Merit Award

Don Champ, director of AES Ice Branch received a Merit Award from ADMA Howard Ferguson for exceptional work at a special ceremony held in November.

According to Mr. Ferguson Don Champ re-



Don Champ receiving his award from ADMA Howard Ferguson.

ceived the honor after experiencing a "unique year" during which he had to deal with major budget reductions (About \$4 million) imposed from outside.

In ADMA's words, "Don reacted to this challenge extremely imaginatively".

Examples quoted of Don's work included:

 reviewing the total ice reconnaissance program and redesigning it to obtain equivalent information at about 15 to 20 percent reduction in costs.

 reshaping the current reconnaissance program by negotiating a highly cost-effective contract with Nordair/Canadian Airlines International.

 improving customer relations so significantly that the user community complimented AES very highly.

 managing major capital projects of the expanded ice information program very wisely with minimal staff. (In fact staff was so improved, even the union leader complimented his management style.)

 — cooperating most effectively with York University to improve the ice research program.



In recognition of his work in promptly reporting last July's Edmonton Tornado, Environment Canada volunteer weather watcher Tom Taylor rceives a personal letter of appreciation handed to him by Environment minister Tom McMillan when the latter visited Edmonton last November 26. For more on Mr. Taylor's exploits please see the October-November '87 Zephyr. A DAY IN THE LIFE... AES Regional Director



AES Ontario Region director Phil Aber arrives in his mid-town Toronto office looking fit and energetic after his brisk regular walk from his home to the subway on his way to work. This being a "typical" day, there are several meetings scheduled. The first is with a Union representative who is here to see him about a harassment case.

Afterwards Mr. Aber tries to explain "In my job I frequently get involved with inter-personal matters. Dealing with people is the major part of most managers' responsibilities. In my 30-yearcareer with the weather organization I've tended to divide my time among operations, staff work at the National level and line management, all of which require dealing with people." He adds that this mix is definitely an advantage in his position as regional director since he has had some personal experience in all the areas in which regional staff operate.

Mr. Aber's office is comfortable, fairly large and well curtained off from the busy traffic outside. For decoration there is a batique depicting an anemometer, a turn-of-the-century barograph, a large photograph of some London taxis and a smaller picture of himself shaking hands with the prime minister. For the interview Mr. Aber abandons his not-too-formidable desk and sits at a round table.

He starts by outlining his four main job responsibilities: advising senior management on policy, providing organizational leadership, allocating and monitoring expenditures and participating in projects outside the region. But soon he is interrupted by his secretary who reminds him that he has another meeting.

It's an ad hoc chiefs-of-divisioins meeting, made up of four of the seven people who report to him directly. They position themselves around the table and discuss a whole gamut of items ranging from evaluating the various uses of telephones in providing public weather information to deciding how to fill senior positions while the incumbents are away. An important item on the agenda concerns a regional employee who has had some problems. A number of solutions are pondered and agreement is finally reached on one that considers both the needs of the employee and organizational priorities. A note is read from the Treasury Board stating that all executive personnel should henceforth be bilingual at the C level and Mr. Aber is able to announce with partial satisfaction that he has just passed his B Level French.

After the meeting, the secretary comes back and tells him that his airline tickets to Ottawa are ready for the next day when he is due to make a quick trip to the National Capital to participate in a meeting on the new Treasury Board program involving Increased Ministerial Authority and Accountability (IMAA). He must also make a side trip to nearby Smith Falls in response to a Departmental request for assistance.

Besides frequent trips to Downsview Headquarters, about 15 kilometres away and to the Ontario Weather Centre and Toronto Weather Office at Pearson International Airport, Mr. Aber engages in a fair amount of other travel. For example he considers it a high priority to visit all 19 weather offices under AES jurisdiction in the region at regular intervals and discuss problems personally with the staff. "I try to get to as many W04's and WSO's as possible. These visits tie in with my belief of maintaining the accessibility of the director and seeking staff's ideas and reactions".

There is about an hour's gap between the second and third meeting and Phil Aber fills in the time busily going through his in-basket. There is one complaint from a ship's captain on the Great Lakes that the marine forecasts tend to be "too pessimistic", and in contrast a letter from the director of Computing and Telecommunications Services Branch praising the staff of Sudbury Weather Office for their assistance during the installation of the METSIS station there.

The third meeting is on finances. An efficientlooking finance officer comes in and the two of them pour over balance sheets closely scrutinizing the year to date's expenditures and the projected expenditures to the end of the year.

During his fast-paced day Mr. Aber comes across as a man of action. With this in mind, I asked him, "What were you doing during the tornado?" Of course I was referring to the major Barrie, Ont. tornado of May 1985, not to the even more disastrous Edmonton tornado of July 1987.

"I stood back and watched the operational teams implement their preplanned responsibilities. They were completely in control. My direct involvement took place much earlier by ensuring procedures and expertise were available." Mr. Aber sounded every bit the calm, competent administrator.

"Our after-the-event evaluations and reports proved invaluable in getting information across to the media on faster, more efficient ways of disseminating weather warnings and to educators in making the public more aware of the real dangers of tornadoes. The Alberta management team certainly benefitted from our experiences and were thus able to handle their situation more efficiently."

Event-filled as it was, this day in the life of Phil Aber didn't cover all aspects of the regional director's job. He tried to bridge the gaps while sitting at his desk eating a quick sandwich lunch.

"I am chief spokesman for the Region on all policy matters", he continued, "and deal personally with enquiries from the media that involve policy issues. In my figurehead role, I play an active part in such public events as the launching of new weather buoys on the Great Lakes or the expansion of Weatheradio services throughout the province. If the Minister or his representative is able to come, I act as coordinator and aide. I participate fully in public consultation meetings, I occasionally give speeches and of course I am regularly in touch with the directors of the five other AES regions."

His last meeting of the day is with Walter Lawrynuik, chief of Forecast Operations for Ontario Region. Walter has been assigned the responsibility of drawing up the Ontario Region portion of the AES Strategic Plan. He outlines the approach he is taking and explains that he is proposing Toronto as the location of the first test-bed Weather Service Office in Ontario Region. The meeting then focuses on the implications of combining the current W04 and regional Weather centres responsibilities there.

Mr. Aber who regards being advised by experts as a key part of his job, acknowledges the work on the Strategic Plan that Walter is doing and a date is set for the next meeting.

He makes it clear that all regions have their peculiarities and therefore Ontario is not a region like the others. "For one thing," he says, "we are practically colocated with AES national headquarters in Downsview. This has some definite

Are You Under the Weather?

Individuals, groups, even whole societies respond to the weather's influence. Many physiological and pathological disorders are affected in some way or another by weather conditions. Of 160 physicians in the USA specializing in internal medicine who were asked whether they believed there is any significant relationship between symptoms of disease and the weather, 92% replied in the affirmative.

From bleeding ulcers to suicide, weather is often fingered as being the trigger in so much of what ails us,

Some of the weather's influences and oddities:

- The weather-sensitive person feels great after the passage of a weather front that brings low humidities, slightly below normal temperatures and a higher pressure.
- Resistance to aches and pains drops during turbulent weather in association with falling pressures and falling or low temperatures.
- Slender, lean-physique people (and schizophrenics) are most weather-susceptible in the spring and early in life.
- You are more likely to be mentally alert when temperatures are cooler than normal but not cold, and when relative humidities are low without the air being overly dry.
- Stocky, rounded-physique people (and manic depressives) are most weather-susceptible in the fall and late in life.
- The middle class is less weather-sensitive than lower or upper classes.

For more on human biometeorology, see *Weathering* by Stephen Rosen (M. Evans and Co., New York, 1979).

From the Canadian Weather Trivia Calendar.

March 2, 1976: A week after the worst ice storm in 40 years in southwestern Ontario, 2,000 hydro customers still had no power. One third of London was without electricity on March 3 and many streets were blocked with broken limbs and downed wires.

March 7, 1987: Toronto city's temperature of 17.9° was the highest ever recorded so early in the year since records began in 1840. Records were also set in northwestern Ontario with mid-teen readings. Rapidly melting snow swelled creeks and rivers. An ice jam backed up the Credit River west of Toronto forcing 7 families to evacuate their homes. Streets were covered in 60 cm of water.

A Day in the Life contd.

pluses. For example Ontario Region can take advantage of the Doppler Radar facility at King City, the only one of its kind in Canada. We can also pool resources with headquarters, from stores to personnel". The disadvantage of being so close to headquarters mainly had to do with overlapping responsibilities in dealing with the Province and occasional over-involvement in headquarters' projects.

If Ontario region differs in some respects from other regions, it also has much in common with them. It covers a vast area from the Manitoba border to the St. Lawrence river. More than 200 AES personnel are employed in it. There are five radar stations, two upper air stations and half a dozen contract stations run by the region.

It is obvious that Mr. Aber gets a lot of satisfaction managing a region as varied and complex as Ontario. "The sheer size of the region, the concentration of population, industry and the national media give us many tasks to perform. In addition, we deal with many types of weather, climate and environmental services. The large population of around 91/2million also means that we respond to a significant share of AES's 25 million annual enquiries."

Managing this type of operation and holding these kinds of responsibilities almost seem to rule out a typical day, but Phil Aber assured me that the day I was privileged to sit in on was as close to average as you're likely to get.

Mr. Aber was interviewed by Zephyr editor Gordon Black.

Watching the Weather

Look for cloudy, unsettled weather when:

- the barometer falls
- the temperature at night is higher than usual
- clouds move in different directions at different levels
- high, thin, wispy clouds (cirrus) increase, sometimes producing a ring around the sun or moon
- clouds darken on a summer afternoon Expect steady rain or snow when there have

been signs of unsettled weather, and:

- the wind is south or southeast, with pressure falling. (If the pressure falls slowly, rain or snow will come within a day; if it falls rapidly, expect moisture any minute.)
- the wind is southeast to northeast, with pressure falling it will rain or snow soon
- Look for showers when:
 thunderclouds accompany a west wind
- think flutter (available) along a west wind
- thick, fluffy (cumulus) clouds develop rapidly in the spring or summer during early afternoon Look for clearing weather when:
- the barometer rises
- the wind shifts into the west or northwest
- the temperature falls fairly rapidly, especially in the afternoon
- Look for continued bright weather when:
 you can look directly at the sun whenever it sets
- like a ball of fire
- the barometer is steady or slowly rising
- · cloudiness decreases in the late afternoon
- morning fog breaks within two hours of sunrise

a light breeze blows from the west or northwestthe sunset is red

From the Canadian Weather Trivia Calendar

March 18, 1987: The school March break brought near perfect weather to Ontario. Warm temperatures as high as 19°, abundant sunshine and a good snow cover on the hills pleased skiers and those who were content to stay in the north for the holidays. (Florida had rain.) Out west the prairies received 20 to 30 cm of snow and the Alberta foothills 60 cm — for some areas the heaviest snowfall of the year. March 16, 1868: An intense thunderstorm accompanied by hail and furious gusts of wind caused considerable damage along Toronto's lakeshore.

March 27, 1987: The unthinkable happened. Easterly winds pushed the pack ice, which normally remains off the coast of Nova Scotia, into Halifax harbour for the first time in 27 years. Maritime traffic was disrupted including ferry service between Halifax and Dartmouth. The ice finally moved out of the ice-free port two days later.

ZEPHYR BREEZES



Meteorology and the Media was the theme of this year's WMO Day (March 23). In a letter sent to more than 300 Canadian radio and TV stations, ADMA Howard Ferguson, Canada's permanent representative at the World Meteorological Organization, pointed out that the media play a key role in disseminating weather and climate information all round the world. The picture shows a representative of the Portuguese National Weather Institute giving the forecast on television.



A food drive for the needy was organized on behalf of Second Harvest in the AES Headquarters building in Downsview during December. Literally thousands of non-perishable food items brought in by AES staff were piled up in the lobby ready for collection. Second Harvest also received \$544 towards the purchase of Christmas turkeys. One employee (Linda Curran, AAFP) built a gingerbread house and raffled it off. The winner was Ed Elliotson of AAM. Food went to a residence for natives, a drop-in centre for streetwomen, the Yonge Street Mission and all Saints Church, all in Toronto. Left to right in the photo are Olga Leskiw, public health nurse, AES Downsview, Peter Pekelny of Second Harvest and Marion Hurlburt of AAM.



Walt Ballantyne, a veteran AES meteorological inspector who has been with the weather service for 38 years recently received a plaque from the director of AES Central Region, Mike Balshaw honoring his efforts as a pioneer in the implementation of the Arctic Aviation Weather Reporting System (AAWRS). The plaque was assembled by members of the Keewatin Region Arctic Airports Program the main beneficiaries of Mr. Ballantyne's work over the past decade. Walt is seen in the picture holding his award. Dr. Bill Schroeder, a scientist with the Air Quality and Inter-Environmental Research Branch of AES (Downsview) is in Sweden for one year as a visiting scientist. He is participating in a Scandinavian research program dealing with the occurrence and cycling of mercury in the environment. He is working out of the Department of Inorganic Chemistry, Chalmers University of Technology and the University of Goteborg.

Meteorologists and other weather professionals are advised to go and see an uncommon art exhibition that is now in Toronto and will be travelling across Canada for the next year or two.

The artist is veteran Canadian painter Paterson Ewen. He is considered a descendent of Canada's first truly original landscape painters — The Group of Seven. Ewen's more recent works, however, have been called "phenomenascapes" — a term that should prove interesting to weather service people because a considerable number of Ewen's very unusual paintings deal with weather phenomena.

Ewen uses metal and plywood rather than paint and canvas and with these materials he is able to create typhoons; lightning, thunder, hail, fog, rain, clouds, ice . . . even weather maps. The way he portrays the wild forces of nature must be seen to be understood . . . there is no method of describing them. A clue to his style can be gleaned by telling you that the artistic weather charts and several phenomenascapes have real scientific arrows nailed on to them, while other paintings can be whimsical . . . for example a precipitation study called "Lollipop Rainfall."

Ewen's exhibition at the Art Gallery of Ontario ends on April 3. Later in the year it will visit London, Ontario, Vancouver and Halifax.

March 16, 1979: The longest spell of below freezing temperatures in southern Manitoba ended after 126 days.



Why is this employee smiling? Answer: she has recently lost 40 pounds during a 10-week weight watchers course held at AES Downsview headquarters. Secretary Cathy Hayes was just one of 22 weight watchers attending the course and according to the organizer, public health nurse Olga Leskiw the entire class lost a total of 298 pounds during this time. Cathy says she feels great and has the incentive to continue losing weight at group sessions.

March 26, 1979: The combination of a swollen, ice-filled river and the greatest rainfall in 78 years produced flooding of the Saint John River near Fredericton. The Trans-Canada Highway and the CPR tracks near Hoyt and Stanley were washed away.

What kind of people visit Resolute? The military do for starters. In fact last November one of the largest groups ever to visit this AES High Arctic Station descended on the weather office en masse. According to Resolute OIC Philip Barg, they consisted mainly of 55- 60 high ranking officers (plus some spouses) all attached to the National Defence College, Kingston, Ontario.

Barg writes that he and Dan Leaman gave the briefings. "I gave a brief description of why weather stations were set up in the Arctic, and how I outlined the JAWS and HAWS history, current operations, AES programs in the Arctic and what activities there are at each station for staff to fill in their spare time. At the end of the talk there were questions . . . ranging from what sort of damage can be expected to the ground from vehicle movements to the meaning of ozone depletion. People also asked about native employment and the judicial system in the Arctic. After about 15 minutes of questions the group went down to the hamlet for a talk with a couple of people there. Due to the short duration of their visit, there was no time to take them to the upper air station or the Ice Patrol hangar even though their aircraft was hangared there".

> HAPPY EASTER!

HAPPY SPRINGTIME!





Smoking in federal government buildings is one of those things earmarked for early extinction. Meanwhile hardened smokers at AES Downsview headquarters can enjoy their last puffs in style. One of the few sections of the building set aside as smoking areas is a high walkway near the Climate Centre on the fourth floor facing west. The walkway is decorated with rows of tall leafy plants and there is a panoramic view both of the interior of the building and outside the window. Taking this picture in silhouette helped preserve the anonymity of the smokers and added a mysterious touch of glamour to an already attractive scene.



Nominations/Avancements Appointments/Promotions

General, ARDG, Downsview, Ont.

Scientist, ARMN, Dorval, Qc/Que.

Officer, AHRO, Downsview, Ont.

Officer, AHRO, Downsview, Ont.

Supervisor, Vancouver, C.-B./B.C.

Vancouver, C.-B./B.C.

Downsview, Ont.

view. Ont.

view, Ont.

A. J. Chisholm (EX-3) Directeur général/Director B. Saini(CS-1) Programmeur/Programmer, ARQD, Downsview, Ont. C. Girard (RES-2) Chercheur scientifique/ Research S. Wild (CS-2) Programmeur/Programmer, ARMF, Downsview, Ont. A. Savard (SCY-2) Secrétaire/Secretary, QAEOS, L. Tripp(CS-4) Gestionnaire informatique/Manager St-Laurent, Qc/Que. System Software, OSD, Downsview, Ont. D. Charbonneau Bérubé (SCY-3) Secrétaire/ L. Provost(AS-1) Agent d'administration/Admin. Officer, QAEM-CMQ, St-Laurent, Qc/Que. Secretary, QAEDS, St-Laurent, Qc/Que. B. Larochelle (EG-1) Techn. en mét/Met. Tech., V. Lorde (CR-4) Commis/Clerk, OSD, Downsview, SM3/WS3, Cambridge Bay, T.N.-O./N.W.T. Ont D. Patrick (MT-6) Surveillant de quart/Shift S. Alp(CS-2) Programmeur/ Programmer, ACPB, Supervisor, PRWC, Winnipeg, Man. Downsview, Ont. B. Galipeau (SCY-3) Secrétaire/Secretary, AHRD, P.Roy (PE-4) Agent du personnel/Personnel Officer, AHRS, Downsview, Ont. W. Piercey (PE-3) Agent du personnel/Personnel T. Pettie (PE-2) Agent du personnel/ Personnel Officer, AHRL, Downsview, Ont. L. leropoli(CR-4) Commis/Clerk, AHRO, Downs-S. Barrett (CR-4) Commis/Clerk, AHRC, Downsview, Ont K. Morris (AS-7) Superintendant/ Superintendent, A. David (PE-3) Agent du personnel/Personnel MTC, Cornwall, Ont. M. Peters (CR-4) Commis/Clerk, AHRR, Downs-D. Gaudreau (CR-4) Commis/Clerk, QAEP,St-Laurent, Qc/Que. S. Miller (MT-5) Instructeur/Instructor, ACTP/T, J. MacDuff (EG-7) Surveillant de quart/Shift Downsview, Ont. C. T. McElroy (RES-2) Chercheur scientifique/ G. Meyers (EG-5) Surveillant/Supervisor, WAED, Research Scientist, ARPX, Downsview, Ont. H. Murray (MT-2) Niv. perf. mét./Met Dev. Level, CFFC, Comox, C.-B./B.C. T. Duffy (EG-5) Instructeur/Instructor, WAED, Vancouver, C.-B./B.C. C.Cote (MT-3) Météorologiste/ Meteorologist, MAEM, Bedford, N.-É./N.S. R. Cormier (MT-6) Surveillant de quart/Shift Supervisor, MAEN, Gander, T.-N./Nfld. J. DeGrace (EG-3) Techn. en mét./Met. Tech., MAEM, Bedford, N.-É./N.S. W. Emond (EG-4) Techn. en aér./U/A Tech., Winnipeg Pool, Winnipeg, Man. M. Yatt (EG-4) Techn. en aér./U/A Tech., Winnipeg Pool, Winnipeg, Man. K. Lloyd-Walters (EG-4) Techn. en aér./U/A Tech., Winnipeg Pool, Winnipeg, Man. S. Smith (EG-5) Techn. en prés./Pres. Tech., BM4/WO4, Churchill, Man. W. Palmer (EG-6) Responsable/OIC, BM4/WO4, Thompson, Man.

Postes temporaires ou intérimaires/ Temporary or Acting Positions

E. Barrett (AS-2) Agent d'administration/Admin. Officer, AWPC, Downsview, Ont.

M. Barnett (CR-4) Commis/Clerk, AHRO, Downsview, Ont.

S. Robinson (GT-3) Gestionnaire, publication/ Manager, Field Pub., ACSO, Downsview, Ont.

J. Mulroy (EL-6) Électronicien/Electronics Tech., ACSO, Downsview, Ont.

R. Quick (EL-6) Électronicien/Electronics Tech., ACSO, Downsview, Ont.

M. Still (ENG-5) Ingénieur/Engineer, ACSI, Downsview, Ont.

D. Rocco(CR-4) Commis/Clerk, ACSI, Downsview, Ont.

J. Stewart (ST-OCE-2) Opér. trait. de textes/Word Processor Operator, AWPA, Downsview, Ont.

G. Keri (SCY-2) Secrétaire/Secretary, AWSC, Downsview, Ont.

P. Dubreuil (SM) Chef du CMQ/Chief, QWC, St-Laurent, Qc/Que.

G. Vigeant (MT-7) Chef DSS/Chief, SSD, St-Laurent, Qc/Que.

C. Crozier (RES-3) Chercheur scientifique/ Research Scientist, ARPP, Downsview, Ont.

A. Baron (FI-3) Chef, Service des finances/Head, Financial Services, AWFH, Downsview, Ont.

R. Lefebvre (MT-6) Météorologiste/ Meteorologist, AWDH, Downsview, Ont.

K. Morris (MT-8) Chef/Chief, ACTT, Downsview, Ont

G. Babin (AS-7) Superintendant/Superintendent, MTC, Cornwall, Ont.

Akeredolu Boursier, Post-doctorat/ Post F Doctorate Fellow, ARQM, Downsview, Ont.

Y. Tang Boursier, Post-doctorat/ Post Doctorate Fellow, ARQA, Downsview, Ont.

W. Gong Boursier, Post-doctorat/ Post Doctorate Fellow, ARQL, Downsview, Ont.

R. Vigeant (EG-5) Techn. en prés./Pres. Tech., MWC, Bedford, N.-É./N.S.

J. Merrick DSS/SSD, Bedford, N.-É./N.S.

R. Milo (MT-6) Programme d'initiation gestion/ MOP Assignment, WAED, Vancouver, C.-B./B.C. K. Henley (EL-5) Électronicien/Electronics Tech., ACSO, Downsview, Ont. R. Vinluan (GT-3) Technicien/ General Technologist, ACSI, Downsview, Ont. B. Grogan (SCY-4) Secrétaire/ Secretary, ADMA, Downsview, Ont D. Langevin (EG-3) Techn. en aér./U/A Tech., SM1/WS1, Inukjuak, Qc/Que. L. Leblanc (EG-3) Techn. en aér./U/A Tech., SM1/WS1, La Grande IV, Qc/Que. J. Sowiak (EG-1) Techn. en mét./Met. Tech., SM3/WS3, Fort McMurray, Alb./Alta. P. Graham (EG-1) Techn. en mét./Met. Tech.,

SM3/WS3, Slave Lake, Alb./Alta D. Ingstrup (EG-1) Techn. en mét./Met Tech.,

SM3/WS3, Edson, Alb./Alta. K. Wilkes (EG-1) Techn. en mét./Met Tech.,

SM3/WS3, Cape Parry, T.N.-O/N.W.T. I. Ross (EG-5) Techn. en prés./Pres. Tech.,

BM3/W03, Yellowknife, T.N.-O./N.W.T.

Mutations/Transfers

R. Tweddell (DA-PRO-3) Opér. Contrôle des opérations/Operations Control Oper., OSD, Downsview, Ont.

B. Beaulieu (MT-3) Météorologiste/Meteorologist, QAEM/CMQ, St-Laurent, Qc/Que.

C. Rancourt (EG-4) Techn. en aér./U/A Tech., SM1/WS1, La Grande IV, Qc/Que.

Y. Bélanger (EG-4) Techn. en aér./U/A Tech., SM1/WS1, Maniwaki, Qc/Que.

F. Gélinas (EG-4) Techn. en aér./U/A Tech., SM2/WS2, Sept-Iles, Qc/Que.

D. Lofstrom (MT-2) Niv. perf. mét/Met. Dev. Level, ARWC, Edmonton, Alb./Alta.

M. Hannah (SCY-3) Secrétaire/Secretary, ARQD, Downsview, Ont.

M. McCrady (MT-2) Niv. perf. mét./Met. Dev. Level, PRWC, Winnipeg, Man.

B. Kessler (EG-6) Techn. en prés./Pres. Tech., Aéroport inter./Edmonton Int'l Airport, Alb./Alta. E. Holtzman (CS-4) Gestionnaire, informatique/

Manager System Software, ACPX, Downsview, Ont. F. Bowkett (SM) Chef/Chief, CCAA, Downsview, Ont.

R. Bigio (MT-5) Météorologiste/Meteorologist, CF METOC, Halifax, N.-É./N.S.

J. Fishwick (EG-6) Techn. en mét./Met. Tech., Victoria, C.-B./B.C.

M. Woodroff (EG-6) Techn. en mét./Met. Tech., BM4/W04, Kelowna, C.-B./B.C.

G. Hollingshead (EG-1) Techn. en mét./Met.Tech., SM3/WS3, Dease Lake, C.-B./B.C.

T. Canavan (MT-3) Météorologiste/Meteorologist, MAEM, Bedford, N.-É./N.S.

B. Thomas (MT-2) Niv. perf. mét./Met. Dev. Level, NWC, Gander, T.-N./Nfld.

G. Bond (ÉG-6) Spéc. information météo/Weather Serv. Specialist, BM3/W03, Saskatoon, Sask.

J. Waitschat (CS-3) Analyste sup. du réseau/Sr. Network Control Analyst, ACPC, Downsview, Ont.

I. Patel (SCY-2) Secrétaire/Secretary, ACPC, Downsview, Ont.

Départs/Departures

M. Pender, ACSI, Downsview, Ont.

J. Martire, ACSI, Downsview, Ont.

D. Berndt, OAEA, AES, Toronto, Ont.

D. Leroux, QAEA, St-Laurent, Qc/Qe.

R. Lafond, CIDO, Dorval, Qc/Que.

A. Gunther, AHRO, Downsview, Ont. a/to Transports/MOT, Ont. Region

N. Zanatta, AHRR, Downsview, Ont. à/to Transports/MOT, Ont. Region

M. Hachey, QAEP, St-Laurent, Qc/Que. à/to Rev. Impôt/Taxation Office

N. Andrews, BM4/WS4, Penticton, C.-B./B.C.

C. Powell, SM3/WS3, Cape St. James, C.-B. /B.C.

J. Ross, SM3/WS3, Dease Lake, C.-B./B.C.

Congés autorisés/Leave of Absence

R. Champagne, QAEP, St-Laurent, Qc/Que.

J. Burrows, Vancouver, C.-B./B.C.

R. Kerrivan, ACPC, Downsview, Ont.

L. Yu Ing, ACPN, Downsview, Ont., Congé de maternité/Maternity Leave.

Retraites/Retirements

P. Monette, ACSS, Downsview, Ont. sept./Sept. 1987

C. Senior, ACSS, Downsview, Ont. sept./Sept. 1987

G. Poole, ACSS, Downsview, Ont. sept./Sept. 1987

J. Klepacz, WAED, Edmonton, Alb./Alta., oct./Oct. 1987

A. Robert, ARMN, Dorval, Qc/Que. nov./Nov. 1987

C. Crozier, ARPP, Downsview, Ont. nov./Nov. 1987

R. J. Fichaud, QAED, St-Laurent, Qc/Que. déc./ Dec. 1987

D. Tesch, MTC, Cornwall, Ont. déc./Dec. 1987 W. Schroder, PRWC, Winnipeg, Man. déc./Dec. 1987

K. Lockerby, MWC, Bedford, N.-É./N.S., déc./ Dec. 1987

W. Gromick, MWC, Bedford, N.-É./N.S., déc./Dec. 1987

R. Hill, MWC, Bedford, N.-É./N.S., déc./Dec. 1987 D. Gallagher, Victoria WO, Victoria, C.-B./B.C. jan./Jan. 1988

R. Gilbert, SSD, QAED, St-Laurent, Qc/Que. fév./Feb. 1988