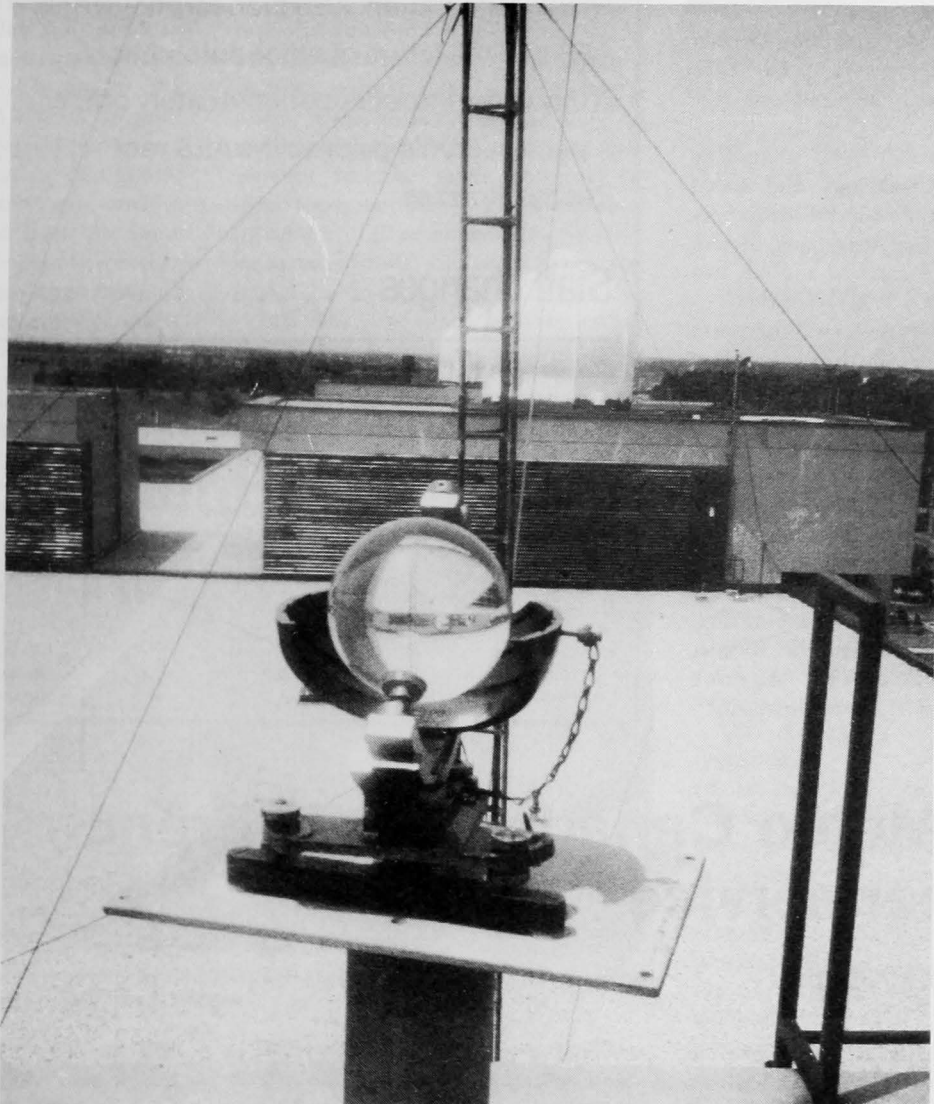


September/October 1984

ZEPHYR



Guide to the AES roof



Environment
Canada

Environnement
Canada

Canada

New Environment Minister

The Honourable Suzanne Blais-Grenier MP for Rosemont (Que.) has been named the new Minister of the Environment.

Mrs. Blais-Grenier holds a master's degree in both sociology and social work. She has studied at the University of Paris, Laval University and McGill University. She is married and has two children.

Mrs. Blais-Grenier is currently executive director of the Association paritaire de prévention pour la santé et la sécurité au travail du Québec. From 1978 to 1981 she served as a director of the Canadian Human Rights Commission. Between 1975 and 1978, she was director of the Social Services Division of the Department of Health and Welfare. Mrs. Blais-Grenier has also worked for the Unemployment Insurance Commission, the Corporation des travailleurs sociaux du Québec and the Agence métropolitain-sud of Laval University.

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Cover: This Campbell-Stokes sunshine recorder stands on top of a penthouse roof. Its resemblance to a crystal ball makes it one of the curiosities of an AES Downsview building roof top tour. It also happens to be located at one of the best look-out spots. See page 14.

Zephyr is a periodical publication for employees of the Atmospheric Environment Service, Environment Canada. It is produced for the Atmospheric Environment Service by the Information Directorate of Environment Canada.

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Atmospheric Environment Service / Service de l'environnement atmosphérique

Télé-Météo Canada — new French weather service

by Michel Mondou

One of AES's major goals is to provide bilingual weather services right across Canada. To ensure that French weather services are made available to francophones outside Quebec, AES has set up a temporary work unit at the Canadian Meteorological Centre (CMC) in Dorval, Que. Télé-Météo Canada officially opened on February 1, 1984 and its work will continue for several years. This will give regional weather centre staff time to build up their knowledge of a second language and

eventually provide weather services in both official languages.

Télé-Météo Canada's preferred means of reaching its users is via mass dissemination techniques such as media broadcasts and telephone answering machines.

Broadcasts are made from a small recording studio transmitting 37 daily weather programs to six radio stations in various parts of the country. The briefings are made via Outwat telephone lines and this year it is hoped to double

the number of broadcasts in order to reach maximum audiences consistent with current resources.

In addition, weather information on telephone answering machines is available in Vancouver, Edmonton, Calgary, Winnipeg, Toronto, North Bay, Sudbury and Sault Ste. Marie. Outwat lines provide Télé-Météo service 24 hours a day directly from the CMC except at Winnipeg where the local weather office records weather information during the

(cont'd on page 3)

day. Answering services installed at Fredericton, Saint John and Halifax receive their weather information from bilingual staff in the Moncton weather office.

Users requiring additional weather information can obtain it without cost by dialing 1-800-361-3392.

All the above services are provided by a team of seven specialists working around the clock seven days a week. Two specialists work the day shift and one works the evening and night shifts. Locating Télé-Météo Canada at the CMC gives it access to a whole range of sophisticated meteorological equipment, as well as an impressive data bank, regional weather maps and satellite imagery. But the new unit also has some of the faults of the old synoptic weather system. The CMC needs large amounts of synoptic data to generate products provided four times a day at regular intervals, but this does not compare with

the continuous hourly data needs of Télé-Météo. Common overloading of hourly data circuits reduces the overall efficiency of operations but the problem has been partially solved and will probably be completely overcome with the implementation of the new Canadian communications system. Meanwhile it will be possible to access computers to obtain missing or late data.

Once an answer to current communications problems has been found personal micro computers will be installed offering almost instant access to weather information. For example, public forecasts, real time and archived weather parameters, climate normals, weather records, radar observations, local topographical effects and special forecasts will all be immediately available on screens in 400 Canadian towns and cities.

Just like any other weather office, Télé-Météo Canada's objective is to provide complete weather information to

the public.

The public can obtain weather forecasts in French by dialing the following local numbers:

Vancouver	734-4146
Edmonton	438-3290
Calgary	274-0014
Winnipeg	949-4437
Toronto	676-4671
North Bay	472-1167
Sudbury	693-4578
Sault Ste. Marie	779-2042
Saint John	696-6360
Fredericton	357-2775
Halifax	835-1804

Mr. Mondou is head of Télé-Météo Canada, Dorval, Quebec.

**See also article on
Sudbury French
services page 8.**

Two AES scientists win Patterson Medal



Left to right: Don Smith, former director general, Field Services Directorate is seen with Patterson Medal winners, John Knox and William Markham.

Two outstanding Meteorologists were honored at the annual meeting of the Canadian Meteorological and Oceanographic Society (COMS) held in Halifax in May. William Markham and John Knox, both of AES received the Patterson Medal for distinguished service to meteorology in Canada.

These men are being honored for their substantial contributions to the improvement of weather service to Canadians — Mr. Markham, for his work with sea ice conditions, and Dr. Knox for his studies on wind and storm patterns.

The medals were presented by Don Smith, acting ADMA. The Patterson medal was first presented in 1946, in honor of Dr. John Patterson, head of Canadian weather service from 1929 to 1946.

Mr. Markham has long been recognized as the Canadian expert in sea ice conditions and forecasting. He joined the Canadian weather service in 1942 as a wartime weather forecaster. His interests soon focussed on ice conditions in navigable Canadian waterways, particularly in the high Arctic. His studies in

the north culminated in the production of the first ice atlas for the Canadian Arctic. Until 1982, Mr. Markham served at AES Downsview as director of the Ice Branch. He later served as a special advisor to the branch.

Dr. Knox's contribution to meteorology in Canada has been remarkable, both before and after his retirement in 1975. He joined the Canadian weather service in 1941, also as a wartime weather forecaster. He acted both as a scientist and as an administrator. As head of the Toronto weather office and then as AES regional director Pacific Region, he worked assiduously on the improvement of weather services for Canadians. He recently earned a Ph.D. degree from the University of British Columbia, a rare accomplishment for a person "in retirement". He is now working as a Post-doctoral Fellow in the Canadian Climate Centre, doing research on the relationships between upper level winds and climate.

The medals were presented during the CMOS annual meeting. The conference serves as a forum for weather scientists from across Canada to exchange information and ideas in their disciplines.

Senior staff changes at Atmos

A larger than usual number of senior appointments at AES plus some major staff retirements mean new faces in management of Canada's weather service. In the past three months three new directors general have been appointed, as well as several new directors and there are more appointments to come. ADMA Jim Bruce says that the changes signify a new era for AES. "The accent is on using the best mix of human skills and new technologies to

deliver better weather products in a timely and useful fashion," he says. "As a whole the new appointees combine great skills in working with our people, along with an intimate knowledge of computers, satellites and new communications systems, to ensure a continuing world class weather service for the people of Canada."

Here is a summary of the major changes:



Ian Rutherford

Dr. Ian Rutherford has been appointed director general AES Field Services Directorate. He succeeds Don Smith who has been named Deputy Secretary General of the World Meteorological Organization (WMO).

Dr. Rutherford assumed this position after a brief period (June-August 1984) as director general of Atmospheric Research Directorate. Previously he spent four years as director of the Meteorological Research Branch (MSRB) at Downsview. Beginning as a weather forecaster in 1963, he moved to the operational development and evaluation unit of the newly formed Canadian Meteorological Centre (CMC) at Dorval, Que., and began working on objective analysis and data assimilation for numerical weather prediction. His optimum interpolation methods are still used at the CMC and at other numerical forecast centres around the world and he is the author of many scientific papers and reports.

After serving as visiting scientist for eight months at the European Centre for medium range forecasts in the U.K., Dr. Rutherford returned to Canada in 1977 to become chief of MSRB's Division de Recherches en Prévision Numérique (R.P.N.) at the CMC.

He obtained his B.Sc. and M.A. in physics (meteorology) at the University of Toronto and his Ph.D. from McGill in 1969.

Howard Ferguson has been appointed director general of the Canadian Climate Centre to succeed Gordon McKay, acting director general who has now retired. He is responsible for planning and coordinating the Canadian Climate Program. Between 1982-84 he was regional director general, Ontario Region, and acted as the senior spokesman for Environment Canada in Ontario. He also served as Canadian co-Chairman of the International Joint Commission's, Great Lakes Water Quality Board and as chairman of the Federal Great Lakes Working Group.

From 1979-81 he was director of Air Quality and Inter-Environmental Research Branch at AES. He has also served as Scientific Program coordinator at ADMA's office, as chief of the Hydrometeorological and Environmental Research Division, Atmospheric Research Directorate, and as head of the Special Projects Unit, Hydro-meteorological section of the AES climatology division. He has contributed 65 scientific papers, published in various journals, in proceedings of international symposia, or as reports of national and international organizations. Mr. Ferguson holds a B.A. from the University of Western Ontario and a



Howard Ferguson

M.A. from the University of Toronto in mathematics, physics and geology.

Dr. Philip Merilees has been appointed the Director General of the Atmospheric Research Directorate. He has been with AES since 1977 as chief scientist for the Canadian Climate Centre.

Dr. Merilees's main duty in his new position for the management of atmospheric and other environmental research.

After joining McGill University's faculty of Meteorology in 1968, he rose to become chairman of the department in 1976. Earlier he had served two years as executive secretary of the Global Atmospheric Research Program. (GARP).

Active in national and international committees, he served as chairman of the National Sciences and Engineering Research Council of Canada's (NSERC's) grant committee for space and astronomy. On the international level he has served on numerous committees for the University Corporation for Atmospheric Research and is a member of the Committee on Atmospheric Science of WMO. He was vice-president and president of the Canadian Meteorological Society in 1974-75.

Dr. Merilees obtained a B.Sc. in Physics from Sir George Williams University, Montreal in 1960, a M.Sc. in Physics from Carleton University, Ottawa in 1962 and a Ph.D. in

pheric Environment Service



Phil Merilees

Meteorology from McGill in 1966. He has some 44 scientific publications to his credit and has produced a major review of the fundamentals of large-scale numerical weather prediction. He is presently editor of the journal *Atmosphere-Ocean* and is a faculty member of the Experimental Space Science graduate program of York University, Toronto. He has also given a large number of invited lectures both in the U.S. and Europe.



Kirk Dawson

Dr. Kirk Dawson, a specialist in data processing and communication systems for many years, has transferred from his post as director of AES computing and communication services branch to become regional director, AES Pacific region. He succeeds Jack Mathieson who has retired.

Dr. Dawson held the AES senior computing and communications position for four years and among other things was responsible for procurement and

installation of the CRAY super-computer at the Canadian Meteorological Centre in Dorval, Que., and for setting up the ground work for the new AES Communications System for AES based on Canadian communication satellites and digital networks.

Before joining AES in 1980, Dr. Dawson was director of the Information and Management Systems Directorate of the Public Service Commission of Canada. He also held the positions of chief of customer service for the computer science centre of the Department of Energy, Mines and Resources and of post-doctoral fellow with the pure chemistry division of the National Research Council of Canada doing research into ionic motion.

Born in the United Kingdom, Dr. Dawson obtained a B.Sc. in applied physics from Brunel University, London, England, and a Ph.D. in solid state physics from Reading University. He began working in 1965 as an employee of the Atomic Energy Establishment at Harwell, England rising to the rank of senior scientist, before coming to Canada.



Warren Godson

Dr. Warren Godson has been appointed senior science advisor to ADMA Jim Bruce.

In 1973 he was named director general of the Atmospheric Research Directorate, a post he held until 1984. Before that he served for a year as director of the Atmospheric Processes Research Branch. Between 1951-1972 he was superintendent of the Atmospheric

Research section. Dr. Godson joined the meteorological branch of the Department of Transport in 1942 and became a meteorologist with research and training functions.

From 1979 to 1984, he was president of the International Association of Meteorology and Atmospheric Physics. He has also been president of the WMO Commission for Atmospheric Sciences; of the Canadian Meteorological Society and Canadian vice-president of the Royal Meteorological Society.

Born in Victoria, B.C., he obtained his B.A. and M.A. from the University of British Columbia in physics and chemistry — a M.A. in physics and meteorology and a Ph.D. from the University of Toronto in the same subjects in 1948. After lecturing at the U of T for some years he was named honorary professor in 1975. He has contributed over 100 articles to professional journals.

Don K. Smith has left his position as director general of Field Services Directorate to become deputy secretary general of the World Meteorological Organization (WMO) in Geneva, Switzerland. He is the second Canadian (first from AES) to hold this position. The first Canadian to hold this position was Professor Roland List, University of Toronto, who served from 1982-84. In this post he will be responsible for the major scientific and technical programs of WMO — the World Weather Watch, The World Climate Program and Research and Environmental Programs.

According to Mr. Bruce, Smith has "an outstanding record at AES, with rare qualities of leadership and scientific skills. He will undoubtedly bring great credit to the Service and Canada in the international communities." Mr. Smith entered his last AES position in 1982. Previously he was director general of AES Central Services Directorate.

A retirement reception for Mr. Smith was held at the Downsview headquarters on August 2, attended by friends, colleagues and senior staff. We know that all AES staff wish Don well in his new career.



Don Smith, now deputy secretary general, WMO is seen trying on some sporting gear during his retirement ceremony at AES, Downsview.

Hubert Allard moves to AES Downsview to fill the position of director of Meteorological Services Research Branch, leaving his previous post as officer-in-charge of the Centre Météorologique du Québec.

Born and educated in Montreal, Mr. Allard first joined the Meteorological Service in 1969. He has held the positions of meteorologist with Scientific Services, chief of Scientific Services and acting regional director of AES — Quebec Region. While at the Centre Météorologique du Québec, Mr. Allard was actively involved in the creation of a computer centre for the region.



Hubert Allard

At Downsview Mr. Allard will mainly be responsible for research and development programs in numerical weather prediction, forecast modelling, satellite and aeronautical meteorology and systems all in an endeavour to improve AES weather, ice and surface oceanographic forecasting services.

Mr. Allard holds a B.A., a B.Sc., and a M.Sc. and has also completed the Department of Transport's Cours de Météorologiste Professionnel.

Patrick Pender assumed the duties of director of the Climatological Applications Branch, effective October 1, 1984. He has been the acting director of Air Quality Division Downsview since March. Prior to that he spent several years as the OIC of the Ontario Weather Centre where, in 1982, he served as a project manager for the Canadian Forecast System Review.

This project was one of three that formed the basis for the current AES Long Term Plan and consisted of a comprehensive review of the Canadian weather forecasting system.

Mr. Pender's duties as the director of the Climatological Applications Branch will include management of effective and



Patrick Pender

national programs for the development of climatological services. He will also advise and assist in support of Canada's social, economic, environmental and international climatological goals.

Top retirements take place

Commenting on several major retirements from AES during the past summer and fall, ADMA Jim Bruce said that their departures represented nearly 200 years of wisdom and meteorological expertise. He added, "Some of our current retirees began their careers assisting the Canadian Armed Forces during the Second World War. For the next forty years they provided much of their vision and hard working ability in building up the Canadian weather service to its current high level."

Gordon McKay, for the past 18 months acting director general of the Canadian Climate Centre, retired in July after more than 40 years with the weather service.

Born in Winnipeg, Mr. McKay obtained his B.Sc. degree from the University of Manitoba in 1943 and his M.Sc. degree in 1953. He served as a weather forecaster for the RCAF during the War, then returned to public weather forecasting at Montreal, Gander and Winnipeg. From 1959 to 1966 he was seconded to the Prairie Farm Rehabilitation Administration in Regina as a hydrometeorologist. From there he moved to AES headquarters in Toronto where he took charge of climatological programs for agriculture, the Arctic, industry and resource development.

Mr. McKay is a member of many scientific and professional organizations, national and international. He was until recently a member of the WMO Technical Commission for Climatology, is widely known internationally for his ingenuity in applying weather and climate information to practical problems. He has published extensively in scientific journals and is the winner of



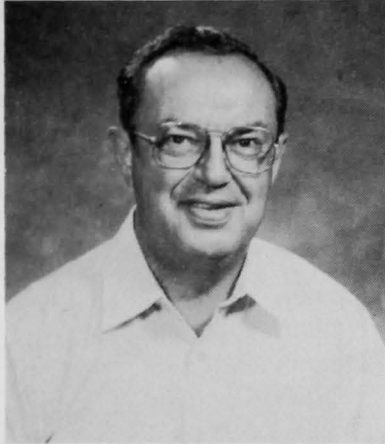
ADMA Jim Bruce presents retiring CCC director Gordon McKay with a special commemorative plaque.

several awards including the President's prize in Applied Meteorology of the Canadian Meteorological Society.

Retirement ceremonies for Mr. McKay included a large gathering in the AES Downsview Building Auditorium on July 5 presided over by Howard Ferguson, director general, Canadian Climate Centre.

Piped in by a kilted piper, Mr. McKay heard testimonial speeches by Des Wright, retired departmental liaison meteorologist, Clarence Boughner, retired director general, Central Services, and Morley Thomas, retired director

general of the Canadian Climate Centre, who spoke respectively of Mr. McKay's early, middle and later career with the weather service. These various stages in the AES "veteran's" working life were also illustrated on slides.



Bill Markham

Bill Markham has spent the past year doing special research for AES — Ice Branch. From 1977-1983 he served as director of Ice Branch at AES Downsview. Before that he spent 16 years in Halifax and six years in Ottawa as OIC of Ice Forecasting Central. Born in Saskatchewan, he received his university degree there and later worked in Edmonton where he helped to establish the Arctic Forecast Team. He spent several years with the Royal Canadian Navy on an ice-breaker as meteorological and ice officer.

This experience helped Mr. Markham to develop the Canadian Ice Services Program. He is the author of the standard reference Canadian Ice Atlas — and has worked closely with WMO in developing international ice terminology and codes now in general use.

Fred Page, international affairs coordinator with the Canadian weather service since 1960, has retired. He was the last of the meteorological officers who served with the Royal Canadian Air Force during World War II and his total length of service was almost 43 years.

In addition to handling all official correspondence between AES and WMO, Mr. Page assisted the permanent representative for Canada at six WMO Congresses, 14 Executive Council meetings and several Regional Association IV meetings.

Besides his international job, Mr. Page has for the same length of time acted as



Retiring International Affairs representative Fred Page is seen with his wife Marie at his Downsview retirement ceremony.

permanent secretary of the AES Management Committee, preparing the minutes and decision records of these weekly or bi-monthly meetings.

A gold medallist at the University of Western Ontario, Mr. Page interrupted his studies in mathematics and physics to become a wartime meteorologist-instructor. Following service at several RCAF stations, Mr. Page transferred to Meteorological headquarters in 1946 to join the Verification Section where weather forecasts from all centres were checked against actual weather occurrences.

A retirement party was held for Fred Page on August 16 at AES headquarters, Downsview, attended by three weather service heads — P.D. McTaggart Cowan, Reg Noble and the current head, Jim Bruce, plus a large number of colleagues and friends. Among activities in the auditorium was a hilarious skit presented by David Phillips and others.

Jack Mathieson, another veteran World War II meteorologist has retired from his position as director AES Pacific and Yukon region.

Jack's service began with the Canadian Meteorological Service (now AES), Department of Transport, in July 1942. His career included service as a wartime forecaster at RCAF stations in British Columbia. After the war he was posted in Vancouver to establish Data Acquisition services there. Transferring to Whitehorse in 1946, he served as duty forecaster and OIC until 1955.

Returning to Vancouver as a Weather Centre shift supervisor he later co-authored an influential review of the forecasting system which eventually became known as the Mathieson Report. In 1973, he transferred to the regional office as Project meteorologist for planning the Pacific Environment Centre. He became chief of Weather Services in 1974, and in 1975, was appointed Pacific regional director.

Jack served for a term as chairman of the Professional Institute. He was also involved in the first Weatheradio Canada installation, the development of the Pacific Region satellite system, and the Automated Shipboard Aerological Program.



Jack and Gloria Mathieson.

A retirement party July 14 was attended by about 150 of Jack's friends and colleagues from the U.S.A., Toronto, Vancouver Island and Vancouver. Ken Harry, former regional director general (RDG) for the Atlantic Region, was the MC for the evening, and introduced the speakers. Dr. Tony Boydell, RDG for Pacific and Yukon, presented Jack with a Long Service Medal and Certificate. The CMOS Rube Hornstein Award was presented by Dr. Gordon McBean, AES scientist with the Institute of Ocean Sciences. Among retirement gifts received from colleagues was a \$1 000 travel voucher for any carrier anywhere in the world and a wrist watch.

1863 The telegraph was used for the first time in Canada to send climate messages — from Peterborough to the meteorological office in Toronto.

Sudbury French services a success

With its nearly one third francophone population, the northern Ontario city of Sudbury used to top most lists when it came to naming Canada's officially bilingual cities.

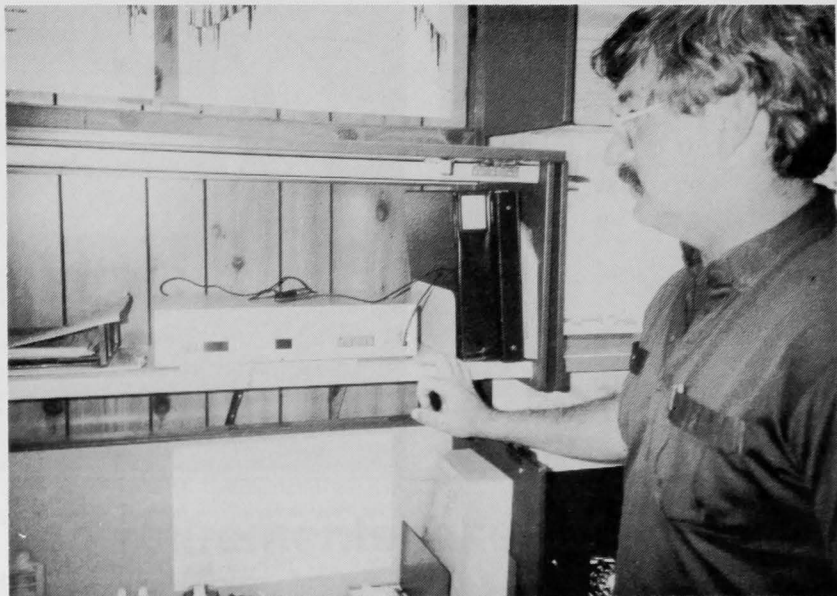
Sudbury is now one of 11 cities offering 24-hour-a-day Automatic Telephone Answering Service (ATAD) for French language weather information. Since Environment Canada's Télé-Météo Canada started recording localized weather forecasts from studios in the Canadian Meteorological Centre (CMC) in Dorval, Que., in February, results in most cities have ranged from fair to good. Only the Sudbury service has taken off like a rocket. The figures speak for themselves. The monitoring machine in the Sudbury weather office recorded 800 plus francophone calls during April. For July the figure shot up above the 1 800 level. In fact as many as 134 francophone calls were received in one day (July 6) — when a tornado hit the nearby suburb of Chelmsford.

OIC Jacques de Corby and Meteorological Technician Pierre Belanger, both classified as bilingual, provided an informal linguistic profile of the Nickel City which goes far to explain why the new local Télé-Météo dial-in service is such a success there.

According to the two AES staffers, there is a growing community consciousness among Sudbury francophones especially in such identifiably French-speaking areas as Moulin à Fleur (Central) or in outlying suburbs such as Val Caron or Azilda. "More francophones are insisting on the right to be served in French "they add" and that definitely includes weather information."

"Of course," says de Corby, "this does not mean Sudbury has lost anything of its old, easy-going language atmosphere. For example, we still tend to use English to address strangers even if their mother tongue happens to be Cree or Ukrainian."

Belanger and de Corby emphasize that Sudbury's French weather information success is largely due to the local phone-in number, 693-4578, being widely disseminated — by the weather office, by the media and by the francophone community in general. This latter includes the influential Place St. Joseph



OIC Jacques de Corby checks the record number of incoming Francophone calls on the ATAD machine in the Sudbury weather office.

(Centre des Jeunes) in downtown Sudbury.

Direct media ties with bilingual services is another major facet of the new francophone service. Michel Mondou head of Télé-Météo Canada says that this fall Sudbury will be added to the list of half a dozen cities receiving radio broadcasts every hour from the CMC studio. The carrying station will be CBON, the CBC Sudbury French station.

Sudbury's French media are committed to the distribution of weather information *en français*. At present CBON compiles its own weather reports from forecast information obtained by wire or from the Sudbury weather office. Another French radio station, CBFRR, carries French weather reports too. *Le Voyageur*, Sudbury's French weekly newspaper, has helped publicize the new telephone answering service number.

Lewis Poulin, a francophone meteorologist working at the impressive new climate exhibit at the Science North Science Centre, which opened in June and who recently arrived in the city from Gander, Newfoundland, has noticed the large numbers of visitors asking questions about the weather and climate in French. "This has been a surprise to me. I always thought of Sudbury as being more anglophone," he said.

From Moulin à Fleur to the stone and nickel plated halls of the Science Centre, French is now a major language for relaying weather information in a city that radiates goodwill in *all* languages.



Maria Sarceovich, technician, is seen working at Sudbury weather office.

CanASTA employees in acid rain sampling

Following a trail in a park near Mont Tremblant, Quebec, you might wonder about your sanity when you happened into a tree walking along the same trail. A second look at a fellow accompanying the tree and you wondered why his umbrella was up on this fine, sunny day. Chances are the pair would stop and perform an improvised skit about acid rain, then invite you to join them at the amphitheatre for a film and talk on this subject.

They were two of approximately 150 employees involved in the AES Environment 2000 project CanASTA, carried out May through September. CanASTA (Canadian Acid Storm Toxic Analysis) is an intensive rain sampling project whose primary objective is to

obtain detailed measurements of variations in chemistry of rainstorms within selected regions in Ontario, Quebec and Nova Scotia.

The two performers took care of the second objective: the promotion of public awareness of the acid rain issue. There was an information officer in each province where CanASTA had established a sampling network. However, the most effective "awareness stimulants" were the sampling sites themselves in communities particularly sensitive to acid rain. These sites act as a reminder that something serious was happening in their own back yards.

CanASTA held a briefing seminar at AES Downsview on May 18. The occasion marked the official commence-

ment of Environment 2000. CanASTA employees heard interesting and informative addresses by former Environment Minister Charles Caccia and by Dr. Steve MacLean, Canadian Astronaut aboard the U.S. space shuttle.

Results from analyses of CanASTA's samples will be published in a written report later this year.

Steve Melnichuk and Rao Polavarapu of AES Air Quality Research Division of Downsview, held responsibility for the administrative and technical management of CanASTA... both may be contacted for information on the program.

AES SMERF rocket proves a success

This May scientists of AES Experimental Studies Division (ARPX) launched a Black Brant IIIA research rocket from the Churchill Research Range at Churchill, Manitoba. Linked up to an overpass by the Solar Mesosphere Explorer (SME) satellite, the rocket payload carried two Total Ozone Indicator ozone spectrophotometers for measuring ozone wavelengths.

At first only a rough prediction of the satellite overpass could be obtained. When final information became available from the University of Colorado, it was decided to go for a May 11 launch. Bob Hoogerbrug of ARPX acted as mission controller under the general guidance of Dr. Wayne Evans chief of Experimental Studies. Bob described the mission as a total success, adding, "the launch went exactly on time at 173100 Central Daylight Time. Motor burn-out occurred at 11.5 seconds at an altitude of 140 000 metres. The rocket-motor separation occurred as planned after 57 seconds. The recovery parachute deployed as scheduled and the payload impacted 25 km from the launch facility. The payload was recovered by helicopter about two hours after impact."

The spectrophotometers were designed by Dr. Evans and Dr. E.J. Llewellyn of the University of Saskatchewan and manufactured by



The AES SMERF rocket is seen on the launching pad.

Scientific Instruments Limited of Saskatoon. This company also designed the payload.

The Churchill Research Range is operated by the National Research Council (NRC). Dale Crook was the overall representative for NRC.

With the success of this first AES rocket launch, a second launch is being considered for late 1984 using the same payload and a Black Brant IIIB rocket.

1873 First synoptic weather data received from Kingston, Port Dover and Port Stanley, sent from Toronto to Washington to begin long-term exchange of data between Canada and the U.S.

1876 Canadian Meteorological Service Director, Sir Frederick Stupart issued the first general weather forecast or "PROBS" soon to be telegraphed to 125 places in eastern Canada.

Dr. Ted Munn wins Frank A. Chambers Award

Dr. Ted Munn of the University of Toronto Institute for Environmental Studies has been awarded the Frank A. Chambers Award of the U.S. Air Pollution Control Association.

Dr. Munn who was formerly a research scientist with AES Air Quality Research Branch, is the first Canadian in 20 years to win the award given for outstanding achievement in the science and art of the air pollution control. (Dr. Morris Katz of the National Research Council of Canada won the award in 1965).

According to ADMA Jim Bruce who

sent Dr. Munn a letter of congratulations, he is only the second meteorologist to have received the honor. (The first was Sir Graham Sutton of the British Meteorological Office).

Mr. Bruce added, "Given your outstanding contributions to air quality research plus the fact you accepted Sir Graham's award on his behalf in 1968, it is only fitting that you be honored in this way."

Frank A. Chambers was the founder of the Smoke Prevention Association and of Air Pollution Control Association of the U.S.A.

Dr. Mateer reaches RES 4 level

Dr. Carl Mateer, deputy director of the Atmospheric Processes Research Branch, has been promoted to an RES 4 position within the service.

This ranking is reserved for a select inner circle of senior research scientists. Currently, the only other RES 4s at AES are: Dr. André Robert of the Canadian Meteorological Centre; Dr. Rene Ramsieger of Ice Research and Development and Dr. Wayne Evans, chief of the Experimental Studies Division.

Dr. Mateer has spent much of his scientific career studying the stratospheric ozone layer by ground-based, and more recently by satellite-borne remote sensing techniques. He was elected unanimously to the post of president of the International Ozone Commission in 1982 — a position which recognizes the respect of his international scientific colleagues. Recently, Dr. Mateer, in cooperation with scientists at NASA and several U.S. universities, was able to demonstrate a statistically significant depletion of the upper part of the stratospheric ozone layer. This is in remarkably close agreement with photochemical models which have predicted such a depletion based on the emission of chlorofluorocarbons into the atmosphere.

Dr. Mateer joined the Meteorological Service of Canada in 1956. He obtained his B.A. (Honours Physics) and his M.A. Physics in Meteorology from the University of Toronto in 1950 and 1951 respectively and obtained his Ph.D. in Meteorology from the University of Michigan.

Edmonton couple takes MOC course

Among the 16 meteorologists graduating last spring from the six month Meteorologists Operational Course (MOC 5) at AES Downsview, were a wife and husband team, Lisa and Allan Coldwells of Edmonton. Both received certificates signifying successful completion of the course. In addition, Lisa received the James Percy award for excellence in synoptic meteorology. The happy couple are seen right.

The group photo of the MOC 5 shows standing left to right: David Broadhurst, Ian Okabe, Allan Coldwells, Brian Proctor, Bradly Snyder, Brian Murphy, Paul Gregory, Gary Burke, Cliff Holtz; sitting left to right: Geoffrey Coulson, Lisa Coldwells, Stephen Miller, Karen Weller, Jeffrey Brook, Gary Kury.



1880-85 Development of a service to relay weather information by displaying discs on rail cars: data telegraphed nightly to railway agents responsible for changing train signs each day and providing weather service to farm communities.

1914 Additional weather service provided to public by supplying data to rural telephone exchanges, subsequently passed on to subscribers.



Office automation:

AES pioneers field trials

Starting in May 1984, a year-long field trial in office automation began at the Atmospheric Environment Service. Two parts of AES are involved in the project — AABD (Finance and Administration Branch) and APDG (Policy, Planning and Assessment Directorate).

Twenty-nine members of AABD and APDG staff are participating — 13 in Hull and 16 in Downsview. The Hull team is coordinated by Bob Jones and the Downsview team by Joe Shaykewich.

The automated system to be tested — in the vocabulary of computer technology — is called an integrated-communications and shared information-storage and retrieval network. The components of the network are: — work stations, that is, video screens and keyboards with full word processing capability; a central processing unit (CPU) which is a large microcomputer; and printers. The Hull team is equipped with 11 work stations, one Spectrix computer and three printers. Downsview is equipped with 13 work stations, a similar Spectrix CPU, and three printers.

Basically, each work station is able to contact, "talk to" and exchange information with any other work station, whether in Downsview or in Hull. Each work station is able to store or retrieve information on a central disk storage device. Information of a restricted kind can be "locked in", that is, users will not have access to it unless they have the "key" (a keyboard entry formula or password).

Some simple and immediate uses of the network are clear. Standard memos, financial reports, and documents of all kinds can be exchanged and stored. Annual reports stored one year can be retrieved next year and simply updated by word processing. But the full potential of the network remains for the field trial to find out.

Behind the field trial lies an ambitious and far-sighted pilot project. At the head of this project is John Smith-Windsor of Information Technology and Management Systems Branch (ITMS) of the corporate level in Ottawa. The field trial, says Smith-Windsor, "is intended to inform the department of the effects of technology on individuals, to promote



Brian Adamson of Program Development and Evaluation Branch (left) and Joe Shaykewich, acting chief Administration Division receive instruction during the AES-OCRA field trials from Geraldine Mooney.

the attainment of departmental goals and to achieve increased productivity at the individual and organizational levels."

"The field trial is an experiment," Smith-Windsor stresses. "We hope it will provide the beginning of a department-wide system. However, we don't know how it will turn out. At the very least we will learn some valuable lessons."

Participants will be regularly interviewed and asked about system performance, user acceptance, human factors, organizational impact, productivity enhancement, and methodology. System components are being leased from OCRA Communications Inc., originally a consortium of Canadian communications-industry companies. The AES-OCRA field trial is a truly pioneer project. Not until the field trial is over and its history analyzed will the results become clear. "We are not committed to OCRA beyond the terms of the field trial," says Smith-Windsor. "If we don't like the results, we can start afresh in a new direction."

The field trial is being conducted in real conditions. Some of the participants have had advanced training in computer technology. Some have had a little. But the majority have only the usual office skills. Much will depend on how the average office worker reacts to the new technology.

"I think at first there will be a honeymoon period," says Joe Shaykewich. "Probably a lull in activity, or period of deflation, will follow as the novelty wears off. But as the participants become skilled in using the technology, acceptance and productivity will likely pick up and, we hope, the trial will end on a favourable note."

Meanwhile Mr. Smith-Windsor, says half jokingly, "Don't throw your typewriters out — yet!"



An OCRA terminal awaits installation at the AES Downsview Building.

AES and the future of office automation

DOE's Information Technology and Management Systems branch has a pilot project linked with the federal government's Office Communications Systems. Begun in 1980 by the departments of Communications and of Industry, Trade and Commerce the program sought to help Canadian companies "develop the industrial capacity to supply the growing national and international markets for integrated electronics office products."

Along with the AES-OCRA field trial, similar field trials are being conducted in National Parks and in the Environmental Protection Service. Leaving the other two field trials aside, what does John Smith-Windsor's pilot project have in store for AES in the future?

Joe Boll, Director of Finance and Administration (AABD) says — "We are five to ten years away from a highly automated and integrated department-wide office of the future."

But, what will the office of the future look like? On the department-wide level, the network (system of systems) will stretch from the Department level, down into the Branches and Directorates, and into the group or individual level. Or inversely, the field trial's 24 work station system will grow and spread outward and upward until the whole of Environment Canada has been brought into the technology.

At the Department level, there will be a corporate computer system managing large corporate data bases such as finance and personnel systems. It will be able to exchange information with computer systems anywhere in Canada.

At the Branch and Directorate level, the computer systems will have access to the corporate computer while, at the same time, managing their own local information.

At the group (individual) level, cluster controllers will compute and switch messages within the group, provide local disk storage and provide outlets to computer networks at a higher level.

The work station of the future will feature text processing, voice annotation of documents, messaging (combined voice and text), spread sheets and modelling with graphics.

Other interesting features will include the following: automatic dialling, hands free telephone operation, and "the ability



Joe Boll, director, Finance and Administration Branch (left) and Ed Millar, Finance Division, receive some practical advice on the OCRA program from instructor Chris Kincaid.

We hear much about the need to increase productivity in the federal public service, but the vast majority of AES staff across the country now works very hard and conscientiously. The only possibility to increase our productivity is to change the way we do certain things, and the new technology will help us in this. There are implications for all staff, including senior managers: the person who cannot operate a keyboard effectively will be left behind. I do not see massive layoffs in the future unless the government takes a conscious decision to reduce its range of services to the public. Rather, the future I hope to see is an AES of size much as at present, meeting increased demands from both the public and the central agencies. Our future hinges on the introduction of new technology in everything we do, not just in the office. This has been typical of our past, and I see no reason for this to change.

Jim McCulloch
Director General
Central Services Directorate

to digitize voice so it can be stored and edited." Printers will be of three kinds: quality (like the IBM Selectric typewriters), draft, and reproducers of screen graphics. Word processors will be integrated into the system and will have a microcomputer dedicated to that task but linked to all other work stations. There will be two-way video — to see as well as to hear each other; Videotex to transmit color graphics and Private Branch Exchanges (PBX)* — a communications switchboard for both data and voice: Data is switched to the target computer while voice goes to a telephone. The capabilities of a PBX are too numerous to mention and some can handle several thousand lines, enough to provide switching for the entire Department. Communications links will be via existing local and long distance telephone services via coax cable, or light transmitting fibre cable. Links can be local, inter-city, or by satellite.

Office furniture will be completely redesigned ergonomically — to accommodate the worker to the new technology, rather than letting him/her tolerate its discomforts.

Obviously the opinion of women will count heavily both in the field trials and in the future office and it is well represented on the evaluation team. But how do AES female staff feel about the project as it gets underway?

Susan Falla, former convenor of Equal Opportunities for Women (EOW) says there used to be considerable concern among AES women employees over the health and safety aspects of using VDTs, but she thinks the fear is much less prevalent now because AES has a policy to relocate women away from terminals during periods of pregnancy. Says Ms. Falla, "Women are very interested in the current changes in office automation and are taking most of the innovations in their stride. Overall, their attitude is very positive."

* Scheduled for installation at AES Downsview in September 1985 is a PBX (Bell Canada SL-1) integrated voice/data network with full self administration (i.e. under control of AAG telecommunications officer.)

A day in the life of an . . .

Occupational safety officer

John Keefe at Downsview is the only full-time occupational safety person in AES and Zephyr sent Jack Gubbins, an ex-editor-in-chief of Canadian Occupational Safety magazine to interview him. After a handshake and the usual pleasantries our interviewer began:

You seem to be the spokesman for AES safety philosophy. Tell me more about it.

Yes, AES relies heavily on its safety philosophy: "The product of safety practice is a low rate of accidents and injuries." I speak on this theme at great length. It's much more than a slogan.

Does AES have a low rate of accidents?

Very low and seldom of a serious kind.

What would be considered serious?

A fall from a tower. We have people who climb towers. Tower climbing involves the risk of just about the most serious kind of injuries we have to deal with in AES. We are very concerned about it. Other major risks are chemical explosions and fires.

Fires? Do you have many fires?

No. The frequency is very low. We put great emphasis on fire prevention. Our last major loss was in 1976 when a hydrogen shed burned down at the Baker Lake weather station. Investigation was very difficult because of the extreme heat generated by the fire. Photographs taken during the fire indicated the source was probably of an electrical nature.

You investigated the scene of this fire personally?

Yes, I was part of an investigation team from Downsview and Central Regional Office.

What is the practical side of safety philosophy?

Injuries are painful and disabling. From a real cost point of view they are expensive in lost working time and compensation claims. A low rate of accidents is achieved through accident prevention. The best way of handling an accident is to prevent it from happening. That is a key part of AES safety philosophy and of mine too.

How do you teach safety?

We send people to the safety and first aid course at the Transport Canada Training Institute in Cornwall, Ontario. Lots of AES staff at all levels have taken this course and know how to prevent accidents. Managers and supervisors are personally responsible for accident prevention in their areas.

Is there a safety hierarchy?

Safe working conditions are based on administrative will. Somebody at the top must insist on them. A Service Safety Committee sits here in Downsview. Below it are Regional and Local Safety Committees.

Are you on the Service safety committee?

Yes. But Downsview also has its own local safety committee, as do regional offices, weather centres and weather offices.

Do you see yourself as a coordinator?

Exactly. AES safety philosophy aims to make everybody in the service safety-conscious. If we fail in safety awareness, we let our safety guard down and accidents occur. Safety consciousness is kept on its toes by the committees, the managers, and supervisors. I often give safety and first aid demonstrations or show films.



AES safety officer John Keefe inspects equipment at high Arctic station.

On the whole are you desk-bound or do you move about?

I'm on the road about ten weeks every year. I'm not so concerned about large regional offices and weather centres. They are in the midst of public services — fire departments, ambulances, hospitals. I worry more about weather stations without nearby public services.

Do northern weather stations then have the highest accident risk?

Yes. Definitely. I make a point of spending a day or two annually at most northern or remote weather stations. I take films with me, I give lectures, I talk with weather station staff about their problems. I am concerned about the human problems of isolation.

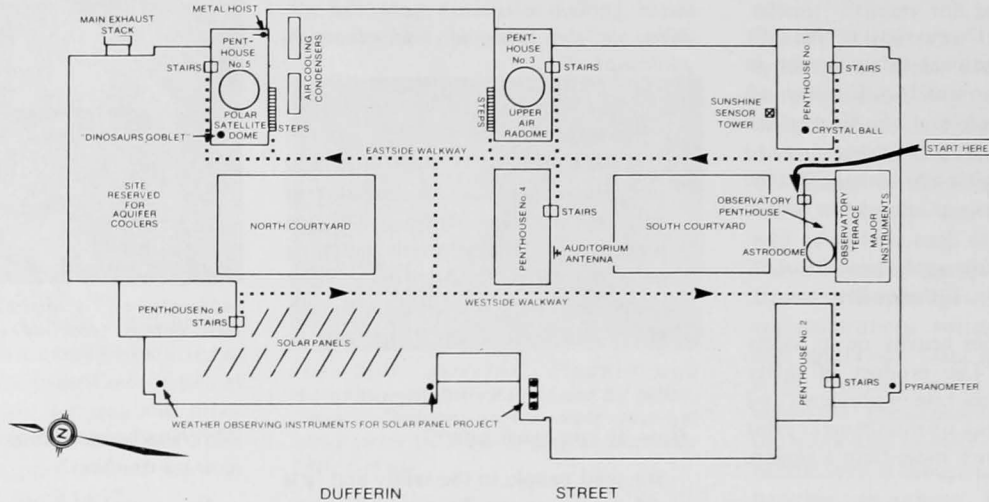
You speak of safety consciousness. How does it work?

Take an upper air technician. To inflate his balloon and send it up exposes him to some real accident risks. He is given a rigid procedure to follow complete with a number of safety checks. The first of these is to ground himself upon entering the hydrogen storage shed. As long as he remains alert and does not omit a safety check, he is pretty safe.

(cont'd on page 16)

FEATURES

A PLAIN PERSON'S GUIDE



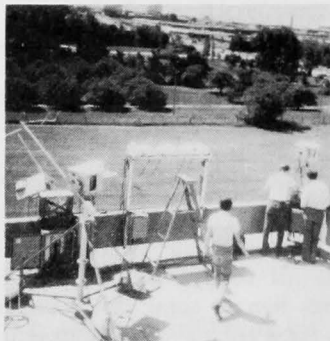
With some good weather still to come, there is still time to explore Canada's most scientific roof.

Most of the instruments on the 9 500 sq. metre roof of the AES Downsview building support atmospheric science projects. However, Public Works Canada staff are now erecting three cooling towers on the north side for the unique aquifer air conditioning project . . . a strictly subterranean affair.

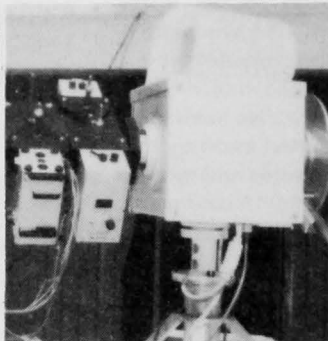
Chief DPW engineer Bloise Thomson says the AES building is unlike other large structures which tend to bunch their rooftop equipment together. AES's air ducts, ventilation and

exhaust pipes are widely spread. Also there are seven penthouses, 90 solar panels and three large domes. Here's a guided tour for avoiding roof-top confusion.

Of the six stairways leading to the roof, the three on the south side are best for starting the tour. Two of these skirt large, concrete penthouses, but for the adventurous there are some steep steps in the fourth floor Experimental Sciences division overhung by a sinister-looking chain hoist hook. They go directly to the roof's undisputed highspot, the Atmospheric Observatory.



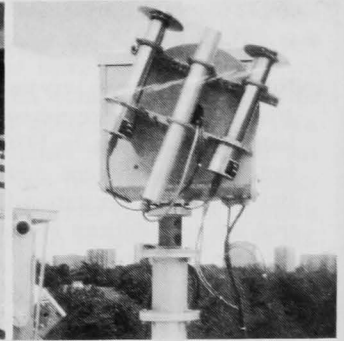
This is a general view of the south-facing Observatory terrace with its array of solar radiation and ozone monitoring equipment.



Outside the Observatory penthouse you could see several AES made Sunphotometers linked up to a Suntracker (right), a device used for pointing instruments at the sun. The Sunphotometer was used this October by Canadian astronaut Marc Garneau aboard the U.S. space shuttle.



Also displayed is the AES designed Brewer spectrometer, one of the world's major ozone detecting devices. Technologist Archie Asbridge stands by.



This pyrheliometer measures direct radiations from the sun and is also mounted on a Suntracker.

TO THE AES ROOF



The penthouse contains monitoring equipment for all atmospheric Observatory instruments. It houses the roof's only "permanent" inhabitants — a group of four or five AES technicians who need to stay close to the action. Note the "astrodome" on the roof which will soon house AES's spanking new computer-controlled telescope, able to take pollution readings from the moon, planets and stars. With nearly a quarter of a million dollars worth of equipment in the Observatory, it deserves three stars in the Michelin Guide!



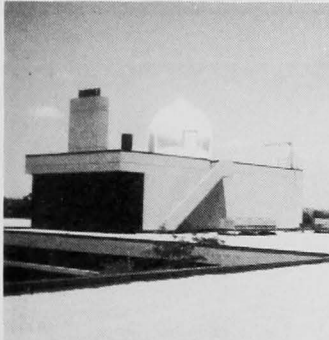
In the south west corner sits a pyranometer, also mounted — you guessed it — on a Suntracker. The ground-based "weather monster" does a mocking dance.



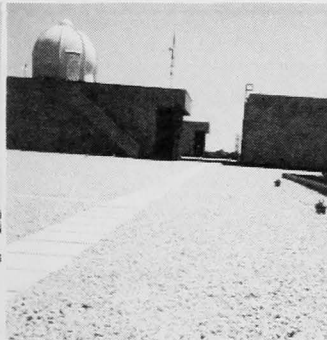
Here's a close up of a sunshine sensor near the Observatory.



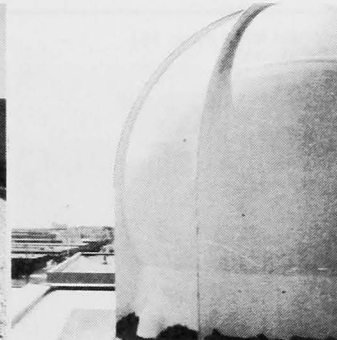
Move east now to penthouse #1. An awkward iron ladder is worth climbing because of the unexpected "crystal ball" on top. It's an older type sunshine recorder and a back-up for the sun sensing experiment (see below left). Electronics technician Fred Koster is seen here consulting his "oracle".



Climbing this high gives you some good general views of the roof. This radome-penthouse combination has an exotic, Arabian Nights look.



The entire roof is strewn with pebbles. (Goodness knows how many millions!) Engineer Thomson says the gravel forms an efficient "inverted roof" and that they cover a layer of styrofoam underneath. Avoid the pebbles by using the concrete stepping stones. Two main north-south paths flank the east and west sides of the building.



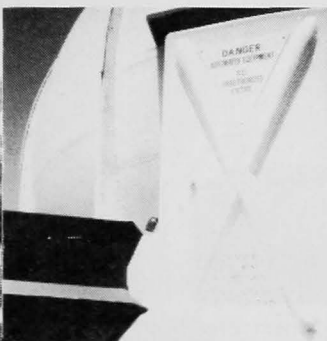
Moving north to penthouse #3 gives you a close-up of a radome. This one is a standard upper air dome used here for aerological research. If you entered the penthouse, you would find it noisy but cool and airy. The dials and ventilator pipes are all connected to the cafeteria.



On the north side see the roof's tallest structure, a massive 25-metre tower, currently used by Data Acquisition branch to perform an international sun sensing experiment. Four sunshine sensors span the tower which also acts as a test antenna for upper air signals from the neighboring radome and as a lightning rod.



A little north of here stare down into the courtyard with its charming fountains, shrubs and tabled patios.



Another radome sits atop the nearby penthouse #5. As indicated, approach with caution because the fibreglass dome contains a fast moving polar satellite tracking antenna.



Just down the steps are loud whirring machines that resemble large kitchen stoves. They are cooling units for the computer on the floor below.

(cont'd on page 16)

FEATURES

(cont'd from page 13)

Does that mean upper air technicians have close to zero rates of accident?

No. Some do occur. I can remember a fluke accident. While inflating his balloon, a technician for some reason let go of it. It floated up towards the ceiling. He dived for the floor. The balloon exploded, severely damaging the roof of the shed. Fortunately, the technician remained unscathed.

How do you prevent accidents during tower climbing?

I recently spent three days at an Ontario Hydro installation observing in a test of four different types of tower life lines. All four are currently being discussed in the Tower Safety Committee. The simplest and the best will be selected and tower climbers equipped with them.

These towers support meteorological instruments, I take it?

Yes, once AES tower climbers are equipped with a good, simple life line, tower falls should be eliminated entirely.

Do you have to keep abreast of all the new safety equipment coming on the market?

Oh yes! (John reached for a smallish package of what looked like yellow paper. Unbundling it, it turned out to be a safety environment suit, with special aluminum foil lining). This suit, said John, can be pulled right over your clothes and the aluminum inside prevents body heat from escaping. I gave it a test recently at a northern weather station. It works very well. Light as a feather too.

Do you collect the minutes of safety committee meetings?

All of them. When problems of universal interest arise I am able to disseminate the information quickly from coast to coast.

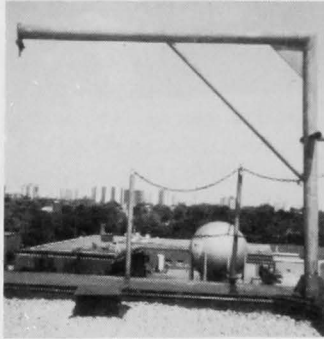
Well John, that pretty well gives me the picture. What is the most satisfying thing about your job?

Achieving and maintaining a low accident and injury rate. Whether I am giving a lecture, inspecting an Arctic weather station, visiting a regional office, or testing new equipment, I am constantly building safety consciousness to prevent accidents. I can physically feel the results when I go out in the field. Staff seem to be aware of all the risks. And that is my greatest satisfaction.

(cont'd from page 15)



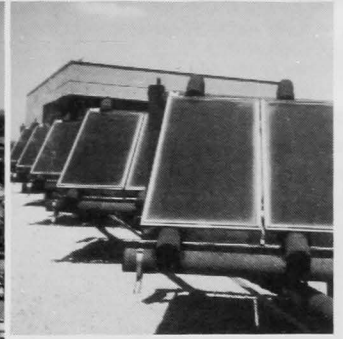
The radome base contains one of the roof's strangest objects — an ugly brown container resembling a dinosaur's drinking cup. It's used as a spare exhaust for the boiler room.



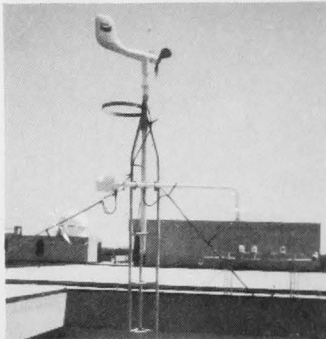
Also near the radome base is this standard metal hoist. Would you believe, the gadget hasn't been used since the building opened! It's easier to lift objects straight up from the street.



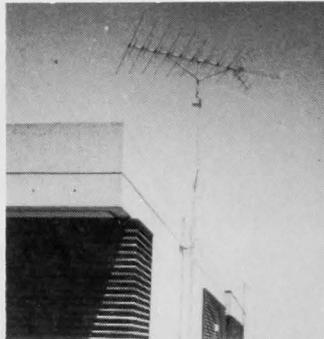
Ensclosed in the north east corner is this huge 45 metre chimney acting as the main exhaust for the boiler room. Its principal charm is the creeper plant winding its way up the side.



Ignoring the north west penthouse, head south along the Dufferin Street stepping stones to one of the roof's most awe inspiring sights: 90 solar panels all sloping south to obtain maximum sunshine and resembling music stands for a giants' symphony orchestra. On a sunny day the panels supply up to a quarter of the building's hot water. Note the thickly wrapped pipes ensuring an even flow of glycol.



The panels are flanked by instruments such as this "airplane" anemometer to obtain optimal weather parameters for the project which is a good example of practical DPW and AES research cooperation.



Advancing southwards you pass a penthouse with fans, pipes and dials all hooked up to ventilate the auditorium below. The theatre even has its own TV antenna, shown here.

Passing another very handsome courtyard you could end the tour at penthouse #2, interesting because it supports the small elevator shaft in the south west wing. Imagine if the elevator were one day extended right up to the roof. It would make this level much more accessible to AES staff and less of a never never land.

Text and photos by Gordon Black

Zephyr Breezes * * *



David Hempleman Adams (left) is seen with Aldo Missio, of Training Branch (Downsview) disguised as a British newspaperman.

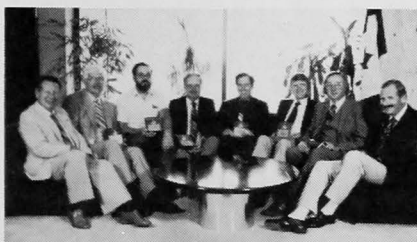
Does anybody remember David Hempleman-Adams? Last summer, Zephyr reported that Eureka weather station saved him and the British Solo North Pole Expedition from a nasty case of carbon monoxide poisoning, after which he then carried on and attempted the 845 km solo walk to the pole but failed when a Helicopter had to rescue him from a drifting ice floe. This year, David tried again and, after killing a polar bear in a fight, succeeded.

From a volunteer Lake Ontario weather watcher — "Early morning, 7 am. The vast flat wet surface of the lake is 60 km across. All along the horizon — a stretch of 200 km — lies a low bank of dense misty fog like a range of distant hills. The extension of the powdery blue sky above and the cold water blue of the lake below meet at that range of distant hills. Here and there along the crest, masses of vapour slowly bulge upward, detach themselves from the parent hills, rise into the sky as individual clouds, and go floating away eastward like a school of sperm whales. Binocular magnification makes it clear that Lake Ontario water is being scooped up and carried off — to be precipitated without benefit of water rates on New Brunswick or the State of Maine. Or do my eyes deceive me?"

The meteorological section of CF weather office at CFB Baden-Soellingen

takes pride in calling itself the longest established Canadian weather office — military or civilian — outside Canada. The section recently celebrated the 30th anniversary of its service. A new crest with the motto An Der Spitze — meaning "at the summit" or "in the lead" — was designed, and a ceremony held to introduce it, at which many users of the weather service attended, while a formation of T-33s flew a salute overhead. The section's 30 years of recorded weather reports are now an officially recognized data base.

A 25 year Long Service Award Presentation was held recently in the AES Downsview Auditorium, Downsview. ADMA, Jim Bruce presented plaques to eight AES employees who work at AES Downsview or in the Ontario Region.



Pictured from left to right are:

Mr. Bruce, Donald Jackson (AES Ontario Region) Albert Wright (Finance and Administration) Richard Poersch (Atmospheric Research Directorate) John McBride (Field Services Directorate) Jerry Skala (Central Services Directorate) Gunther Sachau (Data Acquisition) and Alan Brooks (Ontario Region). Arvind Shah is missing from the picture.

Talk about Toronto's 150th anniversary being celebrated with such hoopla in 1984! There are rumors that the weather service will have its own sesquicentennial bash just four years from now. Yes, on Christmas Day, 1839, Little York opened

its first official weather station and the city's weather has been meticulously recorded every day since!

Andre J. Roberts, AES Division de la recherche en prévision numérique, has been elected a member of the Royal Society of Canada by the Society's Academy of Sciences. ADMA sent him a letter expressing pleasure and congratulations, saying in part, "the quality of your work has contributed in large measure to the excellent reputation enjoyed by Canada today in this field."

Being a sailor, even if you work out of Sudbury can sometimes land you some pretty interesting assignments. Jacques de Corby, OIC at the weather office of this northern Ontario mining city, finds himself on duty several times this summer in the Toronto-Kingston area. First he gave weather advice to skippers taking part in the newly organized challenge Labatt Canada series. French built yachts, plus nearly 100 other boats raced the 1 200 km from Toronto to Charlottetown. Secondly, he used his presentation skills to advise the visiting tall ships and to alert Toronto Harbour officials to the danger of small private craft being tossed about by bad weather during the Toronto-Rochester tall ships race.

When winter prevents sailing, de Corby has another hobby: gourmet cooking.

1963 The Canadian meteorological Centre in Dorval, Que. acquires the G20, its first large weather computer, leading eventually to the acquisition of the CRAY IS 1300 supercomputer in 1984.

(cont'd on page 18)

FEATURES

Zephyr Breezes * * *



John McBride (right) argues a point with British official at world underwater hockey meet.

There is such a thing as underwater hockey! And AES has an underwater hockey expert — John McBride of Weather Services Division. Teams of ten players each are organized competitively — nationally and internationally — by the World Federation of Diving.

John McBride learned scuba diving in 1967 and became an underwater hockey player with the York Sub-Aqua Club team in 1973. This year, 1984, John was appointed commissioner for the men's and women's world championships held in Chicago from April 19 to May 5. Both categories, by the way, were won by Australia. "It was an honour," says John, "to preside over the opening and closing ceremonies and the award banquets, and to resolve conflicts, hear appeals and negotiate rule changes."

★ ★ ★ ★ ★

Bruce Middler has retired after 35 years service with AES. During his career Mr. Middler worked mainly on weather ships, the Quadra and Vancouver. When weather ships were scrapped in 1981, his occupation took a dramatic change of locale. He became the upper air technician at Eureka weather station, in Canada's far north, where he remained for three years until his retirement. A retirement ceremony held in a far northern weather station must be a rare, if not unique, event in AES.

On Friday July 6, 1984, Met Tech Sandy Radecki stood talking to a policeman in the Sudbury weather station. As they conversed the policeman interrupted, pointed out the window, and asked about some strange looking clouds which he called "fingers". Sandy took a look and said, "They are funnel clouds. If one of them touches the ground, there will be a tornado." Five minutes later, one of them did touch the ground and there was a tornado — at Chelmsford. Fortunately, damage was not severe and nobody was injured.

David Okon and Alfred Aladese of the Data Processing Unit, Meteorological Department, Federal Ministry of Aviation, Oshodi-Lagos, Nigeria, worked with the Downsview Computer Centre for four months ending in May, this year, to acquire training in programming. About Canadian meteorology, David said: "Canadian weather reporting is hourly, while Nigerian reporting happens only at 7 pm. Weather changes are fast in Canada but slower in Nigeria." Back in Nigeria, David and Alfred are working an IBM 370.

★ ★ ★ ★ ★

Correction

Zephyr apologizes for a switch in staff change headings in its July-August issue due to a printer's error. The correct listings should read.

LEAVE OF ABSENCE

M. Suzuki, PAED, Vancouver, B.C.
R.V. Bowkett, APEC, Downsview, Ont. French Training.
Y. Gervais, WSI, Kuujjuak, P.Q.

SECONDMENT

M.E. Still, ARQM, Downsview, Ont. to OAED.
P. Ducharme, QAES, St. Laurent, P.Q. to Québec, P.Q.
R. Gilbert, QAES, St. Laurent, P.Q. to ARQM, Downsview, Ont.

RETIREMENTS

W. Jardine, WAED, Edmonton, Alta. Feb. 1984.
H. Quinn, SSD, Pearson Int'l. Airport, Toronto, Ont. March 1984.
A. Loudon, ACSS, Downsview, Ont. Feb. 1984.
G. Giles, ACSS, Downsview, Ont. Feb. 1984.
J.S. McLernon, ARQM, Downsview, Ont. April 1984.
F. Hunt, ACSS, Downsview, Ont. June 1984.
J.R. Mathieson, PAED, Vancouver B.C. June 1984.
G.A. McKay, CCAD, Downsview, Ont. July 1984.
W.E. Markham, ACIX, Downsview, Ont. July 1984.



The cartoon above is published by Zephyr as a truly "historic document". It deals from the year 1945 — an era now called B.C. (Before Computers). It was first discovered in 1974 by Archie Gates while sorting through some old Halifax Public Works papers, and was recently re-discovered by Bill Richards of Atlantic SSD. After being scrutinized by several veteran weathermen, the two cartoonized characters were identified as Art Grant, on the left, and Ted Wiacek.

STAFF CHANGES

Promotions/ Appointments

P.E. Merilees (EX-3) Director General, ARDG, Downsview, Ont.

K. Wowryk (EG-5) Scientific Svc. Tech., PRWC, Winnipeg, Man.

B. Wolanski (AS-1) Admin. Officer, PAEAA, Vancouver, B.C.

M. Giles (CR-4) Clerk, WAEAF, Edmonton, Alta.

D. Malchuk (EG-6) Special Programs Dew Line, WAEOI, Edmonton, Alta.

J. Beal (EG-1) Met. Tech., WS3, Fort Reliance, N.W.T.

T. Layes (EG-4) Met. Tech., WS3, Cape Parry, N.W.T.

A. Lukawesky (EG-7) Supervisor, Aviation Prog., WAEOI, Edmonton, Alta.

M. Geryland (MT-2) Meteorologist, ALWC, Edmonton, Alta.

W. Hartman (MT-6) Meteorologist, ARWC, Edmonton, Alta.

P. McDuff (EG-6) Met. Tech., CMC, Dorval, P.Q.

H. Veenendaal (EG-5) Pres. Tech., WO4, Hamilton, Ont.

J. Brunet (CS-1) Computer Scien., OWC, Pearson Int'l. Airport, Toronto, Ont.

N. Foster (EG-2) Surface Obs., WS3, Estevan, Sask.

M.D. Beebe (EG-2) Surface Obs., WS3, Estevan, Sask.

F. Larouché (EG-3) U/A Tech., WS2, Resolute, N.W.T.

R. Frenette (EG-3) U/A Tech., WS2, Mould Bay, N.W.T.

W.L. McNaughton (EG-4) Radar Tech., WS3, Broadview, Sask.

G.L. Inglis (MT-2) Meteorologist, PRWC, Winnipeg, Man.

P.G. Gregory (MT-2) Meteorologist, PRWC, Winnipeg, Man.

G. Kury (MT-2) Meteorologist, PRWC, Winnipeg, Man.

R. Cooper (CR-4) Clerk, CAED, Winnipeg, Man.

D. McLean (CR-4) Clerk, CAED, Winnipeg, Man.

A. Faseruk (PG-1) Purchasing, CAED, Winnipeg, Man.

S. Jenkins (EG-4) Met. Tech., ARQA, Downsview, Ont.

L. Grahn (EG-6) Met. Tech., WS1, Sachs Harbour, N.W.T.

D. Taylor (AS-1) Admin. Officer, Ice Branch, Ottawa, Ont.

H.C. Pukin (AS-1) Admin. Officer, CAED, Winnipeg, Man.

S. Brodie (EG-3) U/A Tech., WS2, Mould Bay, N.W.T.

R. Mailhot (MT-6) Shift Supervisor, CMCFA, Dorval, P.Q.

G. Toth (MT-6) Chief Prognostician, CMCFA, Dorval, P.Q.

K.N. Driedger (CS-2) Computer Support, ARMA, Downsview, Ont.

M. Duffy (CS-3) Head, Polar Orbiting Satellite Systems, ARMA, Downsview, Ont.

S. Roy (MT-3) Meteorologist, CMQ — QAEM, St. Laurent, P.Q.

P. Vaillancourt (MT-3) Meteorologist, CMQ — QAEM, St. Laurent, P.Q.

J. Miron (EG-7) Tech., QAESC, St. Laurent, P.Q.

G. Stansfield (EG-4) U/A Tech., WS1, Hall Beach, N.W.T.

B. Lemon (EG-4) U/A Tech., WS1, Hall Beach, N.W.T.

W. Davidson (EG-4) U/A Tech., WS1, Alert, N.W.T.

Temporary or Acting Positions

J. Shaykewich (MT-5) Chief Admin. Division, AAG, Downsview, Ont.

J. Kutash (CR-2) Clerk, WAED, Edmonton, Alta.

D. Oliver (GLVHE-9) Station Mechanic, WS1, Sachs Harbour, N.W.T.

S. Ventresca (CR-4) Financial Clerk, AFDH, Downsview, Ont.

L. Sarracini (CR-4) Admin. Assistant, AFDH, Downsview, Ont.

K. Currie (AS-1) Admin. Officer, AFSA, Downsview, Ont.

E. Sheehy (AS-1) Admin. Officer, AFOC, Downsview, Ont.

R.A. Wiess (EG-4) Radar Tech., WS3, Broadview, Sask.

B.R. Howe (EG-4) Radar Tech., WS3, Elbow, Sask.

B.W. Funk (EG-5) OIC, WS3, Elbow, Sask.

M. Liipere (EG-6) Instructor, CAED, Winnipeg, Man.

D. Tidbury (EG-7) OIC, WS1, Eureka, N.W.T.

J.B. Martin (EG-6) Met. Tech., ARQT, Downsview, Ont.

G. Allard (EG-1) Tech., WS3, Churchill Falls, Nfld.

G. Forbet (EG-4) Tech., WS1, Sable Island, N.S.

C. Anderson (MT-7) Head, Analysis and

Prognosis, CMCFA, Dorval, P.Q.

R. Tremblay (CM-5) Communicator, CMCFC, Dorval, P.Q.

A. Courtemanche (CS-1) Programmer, CMCFT, Dorval, P.Q.

M. Grenier (CS-1) Programmer, CMCFT, Dorval, P.Q.

S. Bisanti (CS-1) Programmer, CMCFT, Dorval, P.Q.

M. Plante (CM-7) Head, Communications, CMCFC, Dorval, P.Q.

J. Carignan (CM-5) Communicator, CMQ — QAEM, St. Laurent, P.Q.

M. Boies (ST-OCE-2) Word Processor, CMQ — QAEM, St. Laurent, P.Q.

Transfers

I.D. Rutherford (EX-3) Director General, AFDG, Downsview, Ont.

D.K. Dawson (EX-2) Regional Director, PAED, Vancouver, B.C.

A. McIntyre (EG-3) U/A Tech., WS1, Big Trout Lake, Ont.

P. Bowyer (MT-2) Meteorologist, ATWC, Bedford, N.S.

R. Héroux (MT-2) Meteorologist, ATWC, Bedford, N.S.

Y. Héroux (EG-2) Tech., QAEOO, Cape Dyer, N.W.T.

P. Berthelot (EG-4) U/A Tech., WS1, Alert, N.W.T.

D. Lahn (EG-4) U/A Tech., WS2, Resolute, N.W.T.

J. Parrott (EG-4) U/A Tech., WS2, Baker Lake, N.W.T.

R. Kleer (EG-4) U/A Tech., WS3, Pickle Lake, Ont.

D. Jones (EI-4) Electronics Tech., CAED, Winnipeg, Man.

M. Brough (EG-2) Surface Tech., WS3, Cree Lake, Sask.

J. Siepman (EG-2) Surface Tech., WS3, Estevan, Sask.

V. Sakellarides (AS-1) Admin. Officer, AES, Downsview, Ont.

T. Duffy (EG-3) Met. Tech., WS3, Dease Lake, B.C.

F. Panet-Raymond (MT-2) Meteorologist, Esquimalt, B.C.

D. Mettam (MT-6) Meteorologist, CFWO, Ottawa, Ont.

W.R. Hart (MT-6) Meteorologist, AFWC, Downsview, Ont.

J. Chapman (EG-6) Pres. Tech., WO4, Inuvik, N.W.T.

Y. Gendron (MT-2) Meteorologist, ARWC, Edmonton, Alta.

J. Broszkowski (MT-2) Meteorologist, ARWC, Edmonton, Alta.

STAFF CHANGES

J. Archibald (MT-2) Meteorologist, ARWC, Edmonton, Alta.

R. Sheppard (EG-6) Pres. Tech., WO4, Goose, Nfld.

W. Woronko (MT-6) Meteorologist, CMC, Dorval, P.Q.

M. Gillespie (EG-4) U/A Tech., WS2, Churchill, Man.

H.G. Ewen (EG-4) U/A Tech., WS1, Alert, N.W.T.

C.L. Smith (EG-4) Met. Tech., MAED, Bedford, N.S.

M. Pleau (EG-5) Pres. Tech., WO4, Banff, Alta.

C. Hansen (EG-4) U/A Tech., WS1, Sachs Harbour, N.W.T.

Departures

L. Bayrak, WAED, Edmonton, Alta. to Canadian Forestry Service.

K. Adamson, WO4, Churchill, Man.

J.S. Bruce, WS1, Hall Beach, N.W.T.

B. Marsden, Regional Director SCY, Edmonton, Alta.

C. Grant, ARQM, Downsview, Ont.

L. Dalphond, QAEOO, Clyde River, N.W.T.

D.K. Smith, AFDG (Retired), Downsview, Ont. to Deputy Secretary General, WMO, Geneva, Switzerland.

Secondment

P. Ducharme, QAES, St. Laurent, P.Q. DM's Office, DOE, Ottawa.

Leave of Absence

F. Bowkett, ACGC, Downsview, Ont. French Training.

1968 The first MARS automatic weather station installed at Gonzales Observatory, Victoria, B.C. with weather data transmitted by teletype every 15 minutes.

1977 First Weatheradio Canada broadcasts started in Vancouver with continuous AES forecasts to farmers, lumbermen, fishermen and other special groups.



The comings and goings of AES staff changes could be likened to a wheel which may or may not be turning. At least that's how Zephyr editor Gordon Black saw it when he took this picture.

Retirements

R.K. Bitcon, PWC, Vancouver, B.C. June 1984.

W.R. Spring, PWC, Vancouver, B.C. June 1984.

J. Sullivan, OAEO, Sault Ste. Marie, Ont. June 1984.

K.E. McColm, AES/CFWS, Trenton, Ont. July 1984.

S. Carlson, PRWC, Winnipeg, Man. June 1984.

A.S. Mann, SSD, Edmonton, Alta. June 1984.

A.B. Cooper, ATWC, Bedford, N.S. June 1984.

G.D. Knight, WS3, Estevan, Sask. May 1984.

J.A. McManus, WS3, Estevan, Sask. May 1984.

J. Hendricks, PRWC, Winnipeg, Man. July 1984.

G. Feher, PRWC, Winnipeg, Man. July 1984.

H. Fraser, SSD, Winnipeg, Man. July 1984.

G. Tupling, ARDS, Downsview, Ont. Oct. 1984.