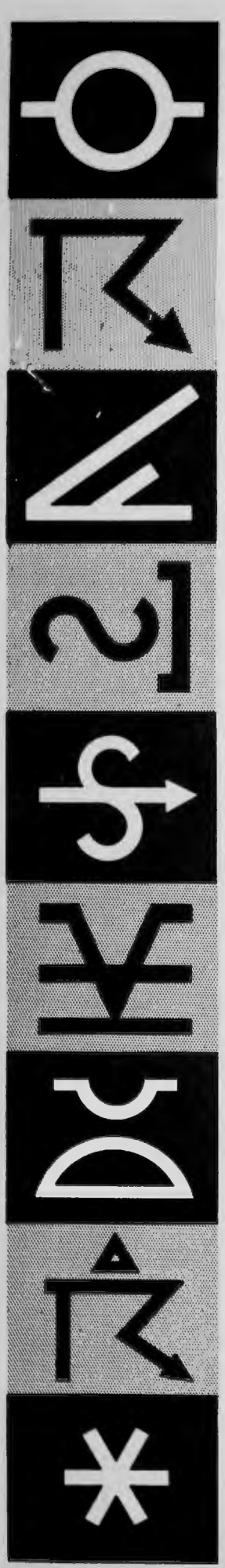

ZEPHYR

NOVEMBER 1972 NOVEMBRE

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Editor: B.M. Brent

ELECTRA CEREMONY IN MONTREAL

A new and exciting phase in the AES's ice reconnaissance program was begun in Montreal on Friday, Nov. 24, with the official commissioning of two Electra ice reconnaissance aircraft. The ceremony, which was held in the main hangar at Canadair Ltd., was attended by approximately 100 invited guests and press representatives.

Mr. C.C. Boughner, Director-General, Central Services Directorate acted as master-of-ceremonies and introduced the platform guests. The first speaker, Mr. J. Ouellet, Director of Industrial Relations at Canadair, welcomed the guests to the plant and drew attention to the fact that the refitted aircraft were an example of the type of quality work Canadair had the capability to perform. Mr. R. Lefrançois, President of Nordair, who own and will operate the Nordair Aircraft, under contract, remarked on the importance that this program would assume within the company's operations. The next speaker, Dr. P. Camu, Administrator of the Marine Transportation Agency, MOT, stressed the vital nature of the ice reconnaissance program to Canada's shipping in the St. Lawrence and in the Arctic. Mr. R.F. Shaw, Deputy Minister of the DOE, and host for the occasion, traced the history of the ice reconnaissance program from its beginnings to its present status as exemplified by the Electra aircraft. Mr. Boughner in his concluding remarks introduced the AES ice reconnaissance crew and Nordair aircrew to the gathering. He also paid tribute to many of the personalities involved with the program past and present.

Following the addresses, Mr. Shaw cut a ribbon across the ramp leading to the aircraft and a short tour of the plane followed.

This most memorable day ended with a reception for the guests and crew members. The following are excerpts from press release issued for the occasion.

CANADA'S ICE SEEKERS GET LATEST EQUIPMENT

The two long-range Electra's will carry such sophisticated equipment as high resolution and auxiliary nose radar for continuous operations when visibility or low-ambient light conditions limit visual observation. The radars permit accurate mapping of significant ice features and their locations. Other sensors include laser profilometers and thermal mappers for providing accurate linear traces of ridges and thermal patterns on the ice surface. Modern aerial cameras are used to record features in key areas for detailed study. Airborne facsimile transmitters are used to send the ice chart directly from aircraft to ships requiring tactical support. Precision navigation gear such as inertial navigation systems and Omega systems offer accurate geographical positioning of the ice fields.

The ice reconnaissance program is a cold weather operation. The aircraft operating from advanced staging airstrips follow the ice from the St. Lawrence River and Gulf in Winter to the High Arctic in Summer. While in flight, 5-6 ice observers aboard the aircraft rotate on shift every 2 hours to ensure constant alertness in the exacting task of charting the ice.

The rapid economic development taking place in the Canadian Arctic increasingly will see a demand for accurate ice data and services to facilitate the expanding exploration activity and shipping in northern waters. The newly-equipped Electras are expected to keep Canada in the forefront of remote-sensing technology and ice reconnaissance operations for many years.

HISTORY OF ICE RECONNAISSANCE IN CANADA

1927–28 – First aerial ice reconnaissance in Canada by the RCAF in Hudson Bay and Hudson Strait.

1951 – Cooperative program between RCAF and U.S. Navy during summer sealift operations.

1954 – Joint Government Committee assigns responsibility for ice services program to Meteorological Branch of the Department of Transport.

1957 – First civilian observers complete 355 hours aboard RCAF Lancasters. Chartered aircraft used in subsequent years.

1958 – Royal Canadian Navy establishes Ice Forecasting Central in Halifax staffed by 3 Meteorologists and 3 technicians.

1959 – Ice Forecasting Central transferred to Meteorological Branch.

1966 – First long-term contract provides two modified Douglas DC-4 aircraft to carry out aerial ice reconnaissance for 5-year period.

1969 – Ice reconnaissance support for the voyage of the tanker-icebreaker S.S. Manhattan successfully uses several new electronic sensors.

1971 – Meteorological Branch becomes the Atmospheric Environment Service organized under the Department of the Environment. Ice Central moves from Halifax to Ottawa.

1972 – New era in aerial ice reconnaissance begins with awarding a 5 year contract to Nordair Limited for two Electra aircraft.

Mr. R.F. Shaw addressing guests at Electra Ice Reconnaissance Inaugural.

Dr. Pierre Camu, Administrator, Marine Transportation Agency, MOT addresses gathering.

Mr. R.F. Shaw Deputy Minister, DOE cuts ribbon leading to aircraft ramp.

Left to Right: Mr. J.A.R. Bourbonnais, Ice Observer, Mr. R.F. Shaw, Mr. C.C. Boughner, Director-General of Central Services Directorate, AES (in foreground) Mr. J. Ouellet, Director of Industrial Relations, Canadair Ltd.

EQUIPEMENT DERNIER CRI POUR LES CHERCHEURS DE GLACES AU CANADA

Les deux *Electras* à long parcours sont dotés d'équipement spécialisé tel qu'un radar de haute définition et un radar avant auxiliaire qui permettront de poursuivre les activités même si une mauvaise visibilité ou un faible éclairement naturel limitent l'efficacité des observations visuelles. Les radars permettent la mise en carte exacte de traits caractéristiques des glaces et de leur emplacement. D'autres détecteurs, tels le profilomètre à laser et le cartographe thermique, doivent fournir le tracé linéaire exact des crêtes et les caractéristiques thermiques à la surface des glaces. On se sert d'appareils photographiques modernes aéroportés pour enregistrer des aspects de zones clés en vue d'une étude approfondie. A l'aide d'émetteurs fac-similés aéroportés, on transmet, pour aider aux manoeuvres, les cartes des glaces directement de l'aéronef aux navires. On emploie des instruments de navigation très précis, comme des systèmes à inertie et des systèmes Omega, pour localiser avec exactitude les champs de glace.

Le programme de reconnaissance des glaces se déroule par temps froid. Les aéronefs, qui ont pour points d'appui des pistes de fortune, suivent les glaces du fleuve et du golfe Saint-Laurent, l'hiver, jusqu'aux parties éloignées de l'Arctique, l'été. Durant le vol, cinq ou six observateurs à bord de l'appareil se relayent toutes les deux heures pour assurer la vigilance constante nécessaire à ce travail astreignant qu'est l'établissement de cartes des glaces.

A cause de la rapide expansion économique que connaît actuellement l'Arctique canadien, la demande de données précises sur les glaces et de services destinés à faciliter les activités croissantes dans le domaine de l'exploration et du transport dans les eaux du Nord ira en s'accentuant. On s'attend à ce que, pendant de nombreuses années, les *Electras* et leur nouvel équipement maintiennent le Canada à l'avant-garde pour ce qui est des techniques de télédétection et des opérations de reconnaissance des glaces.

HISTORIQUE DE LA RECONNAISSANCE DES GLACES AU CANADA

1927–28 L'Aviation Royale du Canada accomplit la première reconnaissance aérienne des glaces au Canada, dans la baie et le détroit d'Hudson.

1951 – Programme mixte mené par l'aviation canadienne et la marine des Etats-Unis, pendant les opérations de ré-approvisionnement par mer en été.

1954 – Un comité gouvernemental conjointe donne à la Direction de la météorologie du ministére des Transports la charge du programme d'information sur les glaces.

1957 – Les premier observateurs civil éxécutent 355 heures de vol à bord d'avions *Lancaster* de l'Aviation Royale du Canada; on se sert, les années suivantes, d'un aéronef nolisé.

1958 – La marine royale canadienne établit le Centre de prévisions des glaces, à Halifax, le personnel se compose de trois météorologistes et des trois techniciens.

1959 – Le Centre de prévisions des glaces passe à la charge de la Direction de la météorologie.

1966 – Par un premier contrat à long terme, deux avions modifiés *Douglas DC-4* assurent la reconnaissance aérienne des glaces pendant cinq ans.

1969 – On se sert, avec succès, de plusieurs nouveaux détecteurs électroniques pour la reconnaissance des glaces, lors du voyage du pétrolier briseglace. SS MANHATTAN.

1971 – La Direction de la météorologie devient le Service de l'environnement atmosphérique du ministère de l'Environnement. Le Centre de prévisions des glaces déménage de Halifax à Ottawa.

1972 – Un nouveau chapitre dans la reconnaissance aérienne des glaces s'ouvre avec l'adjudication d'un contrat de cinq ans à *Nordair Limited* pour mise en service de deux avions *Electra.*

AES SCIENTIST WINS SCIENCE AWARD

Dr. R.E. Munn, Chief Scientist with the AES's Atmospheric Research Directorate was honoured on November 1st, by the American Meteorology Society meeting in Philadelphia during the Conference on Urban Environment and Second Conference on Biometeorology.

At the conference banquet held in the Sheraton Hotel, Dr. Munn was presented with the AMS Award for Outstanding Contribution to the Advance of Applied Meteorology. The citation reads:

> "In recognition of his extensive activities in the application of basic concepts of micrometeorology and atmospheric turbulence and diffusion to problems of air pollution, biometeorology and, recently, to the whole spectrum of international environmental problems."

The award was presented to Dr. Munn by Professor Alfred K. Blackadar (AMS Past President) of Pennsylvania State University.

Editor's Note:

Dr. Munn is the author of the recently published Science Council Special Study No. 24 – "Air Quality – Local, Regional and Global Aspects."

Prof. Blackadar, Dr. Munn, Dr. Ronald L. Lavoie, AMS Awards Committee.

CANADIAN – U.S. MEETING

A two-day meeting was held in Washington on procedures between representatives of the AES Field Services Directorate and officials of the U.S. National Weather Service. The main agenda item was the output of the two countries' main analysis centres, National Meteorological Centre in Washington and the Canadian Meteorological Centre in Montreal. Both offices are responsible for charting the broad scale hemispheric features of weather patterns and using high speed computers to produce prognostic maps of expected weather patterns for future time ranges up to 48 hours and beyond. These charts are used by forecasters throughout both countries as guidance in preparing local forecasts. Since Canada and the U.S. share the North American Continent, economies can be effected by using certain U.S. computer-produced products. In turn the CMC is able to concentrate on Canadian weather features on finer grid and time scales. Information flows both ways between Washington and Montreal via high-speed communication links. Purpose of the talks was to discuss future cooperative relationships between the two offices.

AES IFYGL STATUS REPORT AS OF NOVEMBER 30, 1972

Shoreline Stations

The six shoreline stations operated throughout November. Heated volumetric raingauges were installed at the stations during the month. Data processing continued with the "dumping" of the first six month's data for three of the stations. The other three stations will be "dumped" shortly. The second quality control still has to be done on all the data.

Bedford Deep Water Towers

The Bedford towers were dismantled and removed in November on the following dates:

Oswego tower – shut down November 16, removed November 23.
Cobourg tower – shut down November 21, removed November 21.
Oakville tower – shut down November 21, removed November 22.
Data processing of tower data has yet to commence.

Atmospheric Water Balance Program

This program operated successfully in November with the last Alert Period beginning on November 21. The program is scheduled to finish on December 10. Early review of the data by CEDDA (NOAA) revealed a high percentage data return and the data were of very good quality.

Evaporation Pans

The Class A evaporation pans were removed during the second week in November for the winter season. Heaters are being installed on the X-3 pans and, hopefully, they will continue to operate throughout the winter.

Radar/Precipitation

The Woodbridge radar continued to collect precipitation data during November. The special raingauge network at Bowmanville and the accompanying distrometer were removed for the winter on November 16. Data from the Bowmanville network and distrometer are expected to be ready for archiving in December.

PRESENTATION AT HEADQUARTERS

On Friday, Dec. 8th, several hundred AES employees assembled in the main lobby at the Dufferin St. Headquarters to witness a presentation for the building from the Meteorological Employees' (Toronto) Credit Union. Doing the honours on behalf of the Credit Union was Vice-President Keith McGlening who outlined the history of the Credit Union from its 20 charter members in 1949, to its present state where it numbers some 250. Its assets have also grown over the years ($3,000 in 1949, $300,000 in 1972) and, it was decided by the members to purchase a gift for the new building to commemorate the assistance and cooperation the Credit Union has received from the management. Mr. Noble in his acceptance remarks drew attention to the gift – a framed coloured photograph of 315 Bloor St. by architectural photographer Nelson Pau – and stated that this was the second formal portrait of CMS/AES Headquarters' buildings. The third is the present structure and Mr. Noble was able to inform the gathering that a photograph of the building is available and will be hung as a companion piece to the Credit Union gift in a prominent place within the building. The Inscription reads:

315 Bloor Street West, Toronto, Ontario
Meteorological Branch Headquarters, 1909–1971

Presented for the
Atmospheric Environment Service Headquarters Building
by the Meteorological Employees (Toronto) Credit Union
in appreciation of more than twenty years of cooperation.

Accepted by J.R.H. Noble
Assistant Deputy Minister
December 8, 1972.

Presentation of Meteorological Employees' Credit Union Gift to J.R.H. Noble By L.K. McGlening. (Photo By Norman Steinhaur)

COMPUTERIZED END-PRODUCTS FOR FORECASTS – H.Q. DEVELOPMENT PROGRAM LAUNCHED

A three-man H.Q. meteorologist-mathematician team, the last member of which reported in November, is now at work on the first phases of a major development program. The immediate target of this program is the production, by computer, of individual items in forecasts.

The longer-term objective for the team is technique development for automated production of terminal forecasts with the forecaster giving a helping hand, taking over where necessary, and participating in continued efforts to improve the forecast product. The work is being carried out in the Forecast Research Division of the Meteorological Services Research Branch in Atmospheric Research.

Y. Chung, Meteorologist (M.Sc. '72) is the last team member to arrive. He has had six years of forecast experience in South Korea, including two years as Weather Detachment Commander, and three years post graduate study and research at the University of Alberta Meteorology Department. Team leader is Don Bellows, (M.Sc., U. of T., 1969) former Malton prognostician and H.Q. project meteorologist. Computer-programming and statistics input will be the major emphasis of team member Ralph Jessup (Honours B.Sc. 1966, U. of A., post graduate student at McGill, 2 years research-computer programming with Consolidated Bathurst). Team coach is Superintendent Clive Jarvis of the Weather and Pollution Forecasting Research Section. General guidance from the front office is by J. Clodman, MSRB Director, and Bernie Muller, FRD Chief.

The tactics for the next three years call for development of Mark I of a complete line of products which can be output on the basis of the Regional Update Model and CMC guidance. Products are planned in the following order – updated middle cloud, general precipitation areas, hourly surface temperature and humidity, surface wind speed and direction, low cloud and ceiling, precipitation type, convective precipitation, visibility. A parallel development is concentrating on automated very short range prediction of weather radar echoes.

Another team, under Dr. J. Padro, is working on an operational planetary boundary layer prediction model, the output from which will provide important input to an improved version of the initial set of techniques. The concept of this effort includes participation by field meteorologists in introduction of local logic modules to take into account local experience, test and evaluation, development of techniques for special forecasts, etc., as well as tailoring of the basic models to meet regional requirements.

POURQUOI LES FEUILLES CHANGENT – ELLES DE COULEUR A L'AUTOMNE? (EXTRAIT DU FEUILLET METEOROLOGIQUE)

Pourquoi la couleur des feuilles change-t-elle à l'automne et d'où vient cette belle coloration rouge et or qui fera l'orgueil de nos Laurentides pendant les semaines à venir?

Une telle question paraît simple, mais vous seriez surpris de découvrir à quel point il y a peu de personnes capables d'y répondre au pied levé même au Jardin botanique ou à l'Université de Montréal! A vrai dire, il semble que le phénomène ait été peu étudié en raison de son faible intérêt économique

Le grand spécialiste de cette question semble être le professeur André Cailloux, du département de biologie de l'Université de Montréal.

Selon lui, la coloration flamboyante des érables provient de la superposition de deux phénomènes: l'un est commun à tous les feuillus et l'autre est particulier aux érables.

Chez tous les feuillus, les feuilles contiennent non seulement la chlorophylle qui leur donne la couleur verte, mais aussi des pigments jaunes (carotène et xanthophylle) qui sont normalement masqués par le vert. A l'automne, la chlorophylle disparaît et la couleur jaune réapparaît: le bouleau blanc est un excellent exemple de ce phénomène.

Dans le cas de l'érable, le sucre contenu dans la sève cause l'apparition d'un autre phénomène. Lorsque la feuille cesse d'être alimentée en sève, le sucre provoque une décomposition des composants de la feuille. Il apparaît alors des produits de couleur rouge: des phénols et surtout des anthocyanes.

Ce dernier produit a une couleur rouge très prononcé. De plus, il a la propriété de changer de couleur selon l'acidité du milieu où il se trouve: en milieu acide, il est rouge vif, mais en milieu alcalin, il tourne au violet Cela explique l'apparition de toutes les couleurs intermédiaires selon les circonstances particulières à chaque feuille

Selon M Cailloux, la formation de ce pigment est favorisée par des nuits fraîches (sans gelée) et des jours ensoleillés. De telles circonstances devraient donc rehausser les couleurs des arbres.

Ce n'est pas la température qui provoque le changement de métabolisme dans les feuilles et l'apparition des couleurs d'automne, précise M. Cailloux. La principale cause de cette transformation est le raccourcissement de la journée!

Il y a en effet dans les feuilles un pigment nommé "photochrome" qui produit certaines hormones lorsqu'il est éclairé par le soleil. Lorsque les journées deviennent plus courtes, la quantité d'hormones est insuffisante et les transformations commencent à apparaître.

La principale transformation est l'apparition d'une petite plaque de liège au bout de la "queue" de la feuille, là où s'opérera la séparation de l'arbre. Ce liège bloque progressivement les canaux qui amènent les aliments à la feuille. Quand l'alimentation a cessé, la feuille survit un moment en digérant ses propres réserves pour ensuite se décomposer et s'assécher.

A MINOR MYSTERY – BRUCE WEST (TORONTO GLOBE & MAIL)

Among the numerous minor mysteries which sometimes seem to keep me in an almost constant state of bewilderment has been the one of why, just as more Canadians than ever before are fleeing south during the winter months, more Canada geese are cutting short their annual southward migrations. Can it be that while the people of Canada are becoming softer and more sensitive to chill, the Canada geese are getting tougher? (Don't go honking off in alarm like that, Branta canadensis. I'm using the word tougher in a general sense, having nothing to do with carving and platters.) It was the Canada goose's high, wide and adventurous northward and southward journeys which helped so much to make him an honored symbol in the land of his birth. There are those who think that the Canada goose is a more admirable symbol of this country than the beaver and a more native one than even the maple leaf. He has always been regarded as strong and intelligent and much more romantic, in his migrations through the skies, than a beaver who merely hangs around a pond all the time. And he's a bird that ornithologists can't purloin from this country as they did when they officially changed the name of the Canada jay to the grey jay. After all, the Canada goose is born here, in the true north strong and free. No one can fool around with that important fact. He is called the Canada goose because this is indeed his home and native land.

But the suspicion is growing that he is becoming lazy, another victim of the affluent age. The number of Canada geese who fly all the way to Florida and other sections of the deep south in the fall is dwindling rapidly. Many of them don't bother to go any farther south than Maryland and some of them stay right here in Canada right through the winter months. One example is the flock that hangs around the Toronto waterfront while many of the city's human residents are gratefully basking in the sun down Miami way.

One theory is that the increased number of refuges which have been provided for waterfowl along their flyways have encouraged the geese to tarry in more northern sections of the continent. After all, why run that gauntlet of gunfire for hundreds of extra miles while there's good pickings farther north?

The other day I visited one such refuge, operated by a friend of mine. He feeds the geese about a tone-and-a-half of corn each week and the pond and its shores on his property are crowded with hundreds of the birds. Many of them will be remaining there all winter. Unheeded by these well fed geese are the strange and mystical urges to migrate which were once supposed to pull them far south like a powerful magnet. The cafeteria is there and they intend to stick around as long as the food hangs out, no matter what romantic messages may be carried to them on winter's wild north winds.

All of which is practical enough, but a little disappointing, like so many of today's practical things replacing those which were once regarded as fascinating enigmas.

UN NOUVEL ORDINATEUR AU SERVICE DES PREVISIONS DU TEMPS COMMUNIQUE, ENVIRONNEMENT CANADA

Le Service de l'Environnement atmosphérique du Canada va jouir d'un nouvel équipement à la hauteur des dernières découvertes scientifiques, a déclaré M. Jack Davis le ministre de l'Environnement

Le Service de l'Environnement atmosphérique (S.E.A.) commencera dès l'an prochain à se servir d'un ordinateur qui est le plus puissant du genre sur le marché, pour l'analyse des données atmosphériques.

Selon des conditions contractuelles avec le Control Data Canada Limited, le S.E.A. va louer un ordinateur (Cyber 70 Modèle 76) pour une période de sept ans. Le coût de ce contrat est de l'ordre de $6.3 millions.

Le nouveau système va permettre une évaluation des observations météorologiques dix fois plus rapidement qu'il ne l'était possible Ceci permettra aux météorologistes de faire leurs prédictions d'une façon beaucoup plus détaillée et précise, a dit M Davis Le système servira aussi aux recherches poursuivies par les scientistes du S.E.A. L'unité sera installée au Centre de Météorologie canadien à Montréal et sera en opération à l'automne de 1973.

Le Modèle 76 peut prendre quelques 15 millions d'instructions à la seconde Ceci permet l'adaptation de données continuelles d'observations provenant de différentes parties du Canada ainsi que de bateaux en haute mer. Cet ordinateur peut virtuellement reconstruire l'atmosphère depuis ces données et les traduire en bulletins météorologiques pour les 48 heures à venir et au-delà.

Les renseignements qui sont fournis à l'ordinateur sont entre autres. la température, l'humidité. les vents à différentes altitudes et les températures historiques de régions spécifiques.

Le bon fonctionnement de ce service a été démontré au cours de l'année passée au centre national de la recherche atmosphérique, au Colorado.

Monsieur Davis a déclaré que grâce à la technologie de l'ordinateur. le Service de l'Environnement atmosphérique canadien va être au premier rang de la science météorologique pour les années à venir.

La chlorophylle est en général un des premiers composants qui est détruit puisqu'il doit être constamment régénéré dans la feuille. Lorsque cette dernière cesse d'être alimentée, les minéraux essentiels ne sont plus disponibles. notamment les atomes de magnésium et d'azote qui forment les centres de la grosse molécule de chlorophylle.

Il peut arriver que tous les arbres ne se colorent pas au même moment. C'est le cas général quand il y a plusieurs variétés différentes. Il peut aussi arriver que cela dépende de la nature du sol, de la température ou de l'éclairage.

En général, fait remarquer M. Cailloux, c'est un mauvais signe si un arbre rougit très tôt: cela signifie souvent qu'il est malade et que les feuilles ne reçoivent pas l'alimentation qu'elles devraient recevoir. Il y a cependant des variétés où la feuille fabrique de l'anthocyane dès le printemps ou pendant l'été. Dans de tels cas, les feuilles peuvent être rouges dès le printemps et rester brunes pendant l'été.

TEAM OF MACLEOD, PEARCE WIN RALLY CHAMPIONSHIP

By Richard Russell

The team of Curt MacLeod and John Pearce, of the Atlantic Sports Car Club, Halifax, have won the 1972 Canadian Automobile Sport Clubs Inc., Atlantic Region rally championship.

The pair were tops individually also with MacLeod taking the regional driving title and Pearce the top navigational award. Dwight Scott and Gary Larson. of Fredericton, N.B., were runners-up to MacLeod and Pearce while the brother team of Wilbert and Binnie Langley. of the Atlantic Sports Car Club, were third overall.

REGIONAL RALLY CHAMPS for the 1972 season of the Canadian Automobile Sport Clubs Inc. Atlantic Region are Curt MacLeod, right, and John Pearce of the Atlantic Sports Car Club of Halifax. MacLeod won the top driver award and Pearce the navigators trophy.

The Atlantic Sports Car Club was also the winner of the Team Challenge Shield which is an annual award to the sports car club with the greatest number of points in the Atlantic provinces. ASCC recorded six outright wins on a regional basis while the nearest club to them was the University of New Brunswick Sports Car Club with four wins.

Datsun won the regional marque championship with a total of 287 points, Fiat was second with 66 and Cortina third with 54.

The Atlantic Sports Car Club's club rally championship was won by a lady this year. Cheryl Cassista was the top driver with a total of 33 points. Cheryl won the driving championship while the navigator award goes to Binnie Langley. Ron Johnson was runner-up to Cheryl in the drivers standings followed by Wilbert Langley. Barrie Diggins was the second place navigator and Mike Turner third.

John Pearce is a Shift Supervisor in the Atlantic Weather Central.

BOUNDARY LAYER PROGRAM DURING IFYGL

The AES IFYGL surface boundary layer program concluded with a bang (or perhaps a gurgle) on October 16th. An intense storm that started on the weekend caused the barge to break loose from one of its anchors and it then pulled over our tower Fortunately the data collection phase of the experiment had been concluded on October 13th and although some equipment was damaged (and all was water-logged) the disaster will not seriously effect future programs. Prior to the storm, approximately two weeks of data were collected although some will not be useful because of the poor wind direction Generally the program was moderately successful and will provide some useful information for parameterizing evaporations and heat fluxes from the lake as well as some insight into the mechanisms for the turbulent transfers. Future experiments of this type should be modified to eliminate the necessity for a floating barge by use of either a stable platform or remote control from shore.

Another aspect of the boundary layer program was the cooperative study with the National Aeronautical Establishment. A series of flights at 18, 30, 60 and 150 m. were made over Lake Ontario to investigate the variations of the fluxes with height. Long flights at constant altitude were made along the shoreline and the centre of the lake to examine horizontal variations.

The data analysis of both phases of the experiment has begun.

RETIREMENT

E.D.M. (DWIGHT) WILLIAMS

E.D.M. (Dwight) Williams, the Regional Supervisor, Station Inspection, for the Atmospheric Environment Service, Pacific Region, retired on October 22, 1972, after over 31 years of service.

Dwight joined the Meteorological Service in 1941, following completion of his education, during which he received both his B.Sc. and M.Sc. degrees and two years High School teaching at Alberta College, Edmonton, Alta.

His first assignment was to the RCAF Station at Patricia Bay Airport, B.C., where he remained until 1948 serving as Meteorological Instructor and later Officer in Charge of this office and the Department of Transport Meteorological Office.

Dwight and Eunice Sibley were married in Vancouver, in 1942.

In 1948 Dwight transferred to the Weather Office in Calgary, where he worked until 1951. In that year he won the Meteorological Inspector's position at Vancouver. During the past 21 years in which Dwight has been employed in inspection duties, there has been a marked growth in the number of meteorological stations and in inspection staff.

To mark his retirement, many of his friends, as well as his two sons, daughter, and daughter-in-law, gathered for dinner at Stanley Park Pavilion, on October 16, 1972. Congratulatory messages were read from ADM, AES, and a number of friends who could not be present. Dr. T.G. How, former Regional Director, Ministry of Transport, and Mr. A.R. McCauley, former Regional Meteorologist, were in attendance to add their best wishes. Presentation of a special scroll and camera were made to Dwight on behalf of his friends. A humorous snapshot taken of the honoured guest, on one of his inspection trips, was presented to Mrs. Williams. Mr. J.R. Hamilton, Regional Supervisor, Station Operations, acted as Master of Ceremonies.

Mr. & Mrs. Dwight Williams

LE PARTHENON RESISTE MAL A LA POLLUTION

par John Rigos La Presse

ATHENES (UPI) – Après Abou Simbel, Venise et Carthage, faudra-t-il lancer une campagne internationale pour sauver le Parthénon? Les archéologues ne voient pas d'autre moyen de sauver ce monument, rongé par les fumées industrielles et les gaz d'échappement des voitures, et menacé par la rouille des puissantes barres de fer utilisées lors d'une précédente restauration pour consolider les colonnes et les autres parties du temple.

Les centaines de milliers de touristes qui viennent admirer chaque année ce monument n'ont certainement pas remarqué l'état de délabrement avancé de nombreux éléments, en particulier des plaques de marbre ou de certaines frises, ne serait-ce que par l'impossibilité de pouvoir procéder à des comparaisons.

Les experts, eux, lancent un cri d'alarme: le problème a atteint les proportions d'une "catastrophe" n'hésite pas à dire l'archéologue Yannis Miliadis, 77 ans, directeur de l'Acropole. "Si nous ne trouvons pas rapidement une solution, ce sera un "désastre" dit de son côté le professeur Spyros Marinatos, directeur des services archéologiques et principal responsable de la sauvegarde des monuments anciens.

Pour l'instant seul le Parthénon est menacé par l'un des maux de l'époque, la pollution. Les autres monuments de l'Acropole "tiennent le cou". Mais l'absence d'un remède rapide ne ferait qu'aggraver l'état de ce temple bâti au Ve siècle avant notre ère, a l'époque de Périclès, et qui a déjà, passablement souffert du bombardement de 1687, au moment où le temple dédié à Athéna avait été transformé en poudrière par les Turcs.

Il faut reconnaître que le marbre utilisé par "l'architecte en chef" Phidias était de médiocre qualité, et que de surcroît des plaques de marbre ont été utilisées en très grande quantité par les dignitaires turcs qui vivaient sur l'Acropole, le Parthénon ayant auparavant servi successivement de temple, d'église catholique et de mosquée. Quant aux frises, elles ont été en partie démontrées et transportées soit au British Museum de Londres soit au Louvre.

Quelles solutions faut-il alors appliquer? Lavage de la pierre et du marbre comme une simple opération de ravalement? Application de fines couches de substances chimiques de nature à ralentir les attaques de la pollution? Dèmontage des frises et autres sculptures qui seraient mieux protégées dans les musées et remplacées par des copies? Personne n'a encore trouvé de remède idéal. Ce que l'on sait par contre c'est qui'il faudra d'énormes sommes d'argent pour sauver l'une des plus belles pièces de l'architecture.

CANADA CUP MATCHES

The recent Canada Cup Matches on Lake Ontario received personalized service from the Toronto Weather Office provided by Mr. Gord Gee. For a first-hand look at things, Mr. Ted Wiacek, OIC of the office was invited on board one of the escort yachts to view the race. Despite the casual nautical air he assumed, Ted's golf cap and carpet slippers betrayed his landlubber origins. We wish to thank Mr. Geoff Meek, Ontario Region's Port Met. Officer for this contribution to our photo archive.

AES SIGNS CONTRACT FOR A PROFESSIONAL METEOROLOGY COURSE IN FRENCH

The AES has signed a contract with the University of Quebec to train French language meteorologists. The first course will be given at the university campus in Montreal from January to June 1973. Graduates will then receive Forecast workshop training (bilingual) similar to that given to the graduates of the Toronto course.

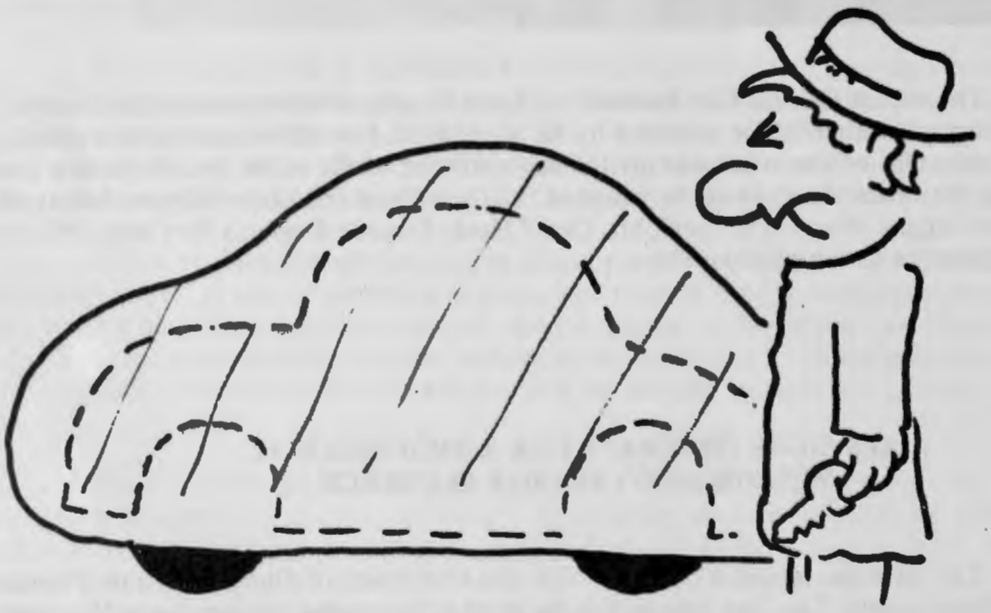
The French language meteorology program is expected to continue in future years. The format of future training will be one academic year at the University of Quebec at Montreal from September to April followed by a two to three month period of practical training.

During the initial crash course various meteorologists will participate as professors and Dr. Gaston Paulin has been assigned to the program on a full-time basis.

TECHNICIAN TRAINING IN THE FRENCH LANGUAGE

The first ab-initio technician course will be given in French at the ASTS in Ottawa in January 1973. French-speaking instructors (4 EG6's, 1 MT5 and 3 temporary technical staff) are presently completing preparation for the course.

Additional bilingual instructors at EG7 level at both the ASTS and UATS will enable development of advanced courses in the near future.



LE VERGLAS H.W.

HOW TO WIN FRIENDS! !

Radio Station CKOX Woodstock, Ontario a subscriber to Broadcast News, directed an enquiry to that organization asking for a special forecast for a motorcade travelling between Woodstock and Wheeling West Virginia the following day.

The request was referred to AES Headquarters which in turn passed it to the Toronto Weather Office. Direct telephone calls were arranged between the Weather Office and CKOX and the conversations were taped. The meteorologist receiving the kudos in the CKOX letter was Gord Gee.

Nov. 20, 1972

Don Covey
Broadcast News Ltd.,
Toronto, Ont.

Dear Don:

A short note of thanks for the services you rendered us last Friday. The weather reports for Wheeling, West Virginia did not only reduce the work load of our receptionist but informed the several hundred people who took the trip of what was happening and how to dress accordingly.

The reports I must say were exceptional. They were taped and aired as received. I must say that whoever did those reports has a knack for doing it.

Please extend our thanks to the Metro Toronto Weather Office as well.

Once again Don, thank you very much for your assistance.

Yours very truly,

Ed Anderst (CKOX 1340)

PERSONNEL

The following transfers took place during the month of November, 1972:

M.D. Hewson, MT 2	from CFB Greenwood to Gander Weather Office	– Nov. 1
T. Noga, MT 2	from CFB Winnipeg to CFB Portage la Prairie	– Nov. 1
L. Funk, MT 2	from CFB Comox to CFB Shearwater	– Nov. 1
A.M. Keating, MT 3	from Gander Weather Office to Toronto W.O.	– Nov. 17
G.D. Moody, MT 6	from A.E.S. Headquarters to Prairie W.C.	– Nov. 1
B.D. Greer, MT 2	from Atlantic Weather Central to Training Branch, AES HQ, Toronto	– Nov 5
N.C. Meadows, MT 5	from Goose Bay to Gander	– Nov. 15

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

72–AES–CC–55	Meteorology MT 5, Meteorology Instructor, Training Branch, AES HQ, Toronto – J.E. Campbell
72–AES–CC–58	Meteorology MT 7, Head, Public Weather Services, User Requirements Division, Field Services Directorate, AES HQ, Toronto – L.K. McGlening
72–AES–CC–69	Meteorology MT 7 Arctic Development Climatologist, Arctic Climatology Unit, AES HQ, Toronto – B.M. Burns
72–AES–CC–107	Meteorology MT 6 SOMet. Maritime Command, Halifax, N.S. – J.B. Elliott
72–AES–CC–190	Meteorology MT 7 Senior Staff Officer, Met. Plans Requirements and Training, CFHQ, Ottawa – W.J. Sowden

72–AES–CC–87	Meteorology MT 4 Ice Forecaster, Ice Central, Ottawa, Ontario – G.E. Wells
72–AES–CC–47	Meteorology MT 7 Chief Prognostician, CMC Dorval, Quebec – J. Der – P.B.H. Lee – J. Ring
72–AES–CC–48	Meteorology MT 7 Shift Supervisor. CMC Dorval, Quebec – L. Hillgartner – R. Hone
Project Assignments	– H.E. Wahl -- Arctic Coordinator, FSD, AES HQ, Toronto 6 months, November 15.
Retirements	– Mr. A.L. Guttierez Arctic Weather Central, Edmonton, Alberta.

Appointment:

Mr. John J. (Jack) Labelle of Winnipeg has been appointed by the Public Service Commission to the position of Director of the Atmospheric Environment Service's Central Region, Environment Canada. The appointment was announced by Mr. J.R.H. Noble, Assistant Deputy Minister of the Atmospheric Environment Service.

M. John J. (Jack) Labelle de Winnipeg a été promu par la Commission de la Fonction publique au poste de Directeur du Service de l'Environnement atmosphérique de la région du Centre pour Environnement Canada. Cette promotion a été annoncée par M. J.R.H. Noble, Sous-ministre adjoint au Service de l'Environnement atmosphérique.

DR. H.A. WIEBE

The Air Quality Research Branch has just hired its first chemist, Dr. H.A. Wiebe, who is also the first chemist ever to be hired by the A.E.S.

Dr. Wiebe was born in Coaldale, Alberta and received his B.Sc. and Ph.D. at the University of Alberta where his doctoral studies included the examination of the reactions of sulfur atoms with olefins under a variety of experimental conditions. Before accepting the position with A.E.S. he was a Postdoctoral Fellow with the National Research Council of Canada and prior to that he was a Research Associate at the Centre for Air Environment Studies at the Pennsylvania State University.

Dr. Wiebe's professional experience is a valuable asset to the Atmospheric Chemistry Division and he has provided more definitive plans in the field of atmospheric chemistry research. The Air Quality Research Branch plans to hire five more chemists and a Chief in the near future to complement its research program in atmospheric chemistry.

TRIVIA

"OUT OF THE MOUTHS OF BABES' . . . "

LETTER RECEIVED AT AES HEADQUARTERS

Dear Sir:

I do not know what Atmospheric Environment is? Would you please explain it to me and send some information on Atmospheric Environment?

Yours sincerely,

Mike MacRae

Unusual request at . ?

"For number of VFR hours or above during the average summer . . . We gave the customer the mailing address of the VR Weather Office as he required a statement in writing."

DESIDERATA

Go placidly amid the noise and haste, and remember what peace there may be in silence. As far as possible without surrender be on good terms with all persons. Speak your truth quietly and clearly; listen to others, even the dull and ignorant; they too have their story. Avoid loud and aggressive persons, they are vexations to the spirit. If you compare yourself with others, you may become vain and bitter; for always there will be greater and lesser persons than yourself. Enjoy your achievements as well as your plans. Keep interested in your own career, however humble; it is a real possession in the changing fortunes of time. Exercise caution in your business affairs; for the world is full of trickery. But let this not blind you to what virtue there is; many persons strive for high ideals; and everywhere life is full of heroism. Be yourself. Especially, do not feign affection. Neither be cynical about love; for in the face of all aridity and disenchantment it is perennial as the grass. Take kindly the counsel of years, gracefully surrendering the things of youth. Nurture strength of spirit to shield you in sudden misfortune. But do not distress yourself with imaginings. Many fears are born of fatigue and loneliness. Beyond a wholesome discipline, be gentle with yourself. You are a child of the universe, no less than the trees and the stars; you have a right to be here. And whether or not it is clear to you, no doubt the universe is unfolding as it should. Therefore be at peace with God, whatever you conceive Him to be, and whatever your labors and aspirations, in the noisy confusion of life keep peace with your soul. With all its sham, drudgery and broken dreams, it is a beautiful world. Be careful. Strive to be happy.