SUMMER 2000

Zephyr

METEOROLOGICAL SERVICE OF CANADA

Environnment Canada Environnement Canada

Assistant Deputy Minister Stepping Down

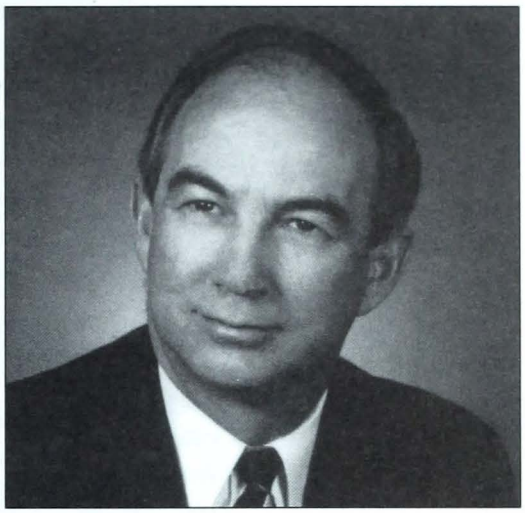
Dear colleagues in the Meteorological Service of Canada (MSC) and the meteorological-hydrological community in general, this is my last message to you in *Zephyr*. As I announced on January 24, in my presentation at our first national interactive MSC meeting, I will be leaving my position as Assistant Deputy Minister at the end of this month.

It was just over six years ago, on February 1, 1994, that I flew from the West Coast to take up this position. Being a meteorologist, I can still remember the weather that day—it was above freezing and sunny when I left Vancouver, but in Toronto it was –10°C, with a windchill of –29°C. I remember the cold wind blowing through the passageway as I left the airplane. Perhaps it was a sign.

We have been through interesting times—times that have been very difficult for many, but also times of success. I still believe that what the MSC does for all Canadians is important and valued. People want and need to know if tomorrow's weather will bring hailstorms or smog, or if the waters flowing in our streams will cause floods and wreak havoc on our lives and property. The information we provide to farmers and fishers, loggers and construction workers, pilots and parents, enables them to adapt to changing conditions or alter their actions to preserve lives, reduce damage to health and property, and enhance economic efficiency and environmental protection. And we do it in a scientifically objective way.

This issue of *Zephyr*, like many before it and many more to come, is a record of the successes

Continued on page 2



Dr. Gordon McBean

In this Issue

Canada

Assistant Deputy Minister Stepping Down

Continued from page 1

and diversity of the MSC. It honours our people, from volunteer weather observers to scientists, our advances in services to Canadians, and the new techniques we have developed. This issue introduces us to 16 new meteorologists who are taking up positions across the country—our first recruits in several years and our staff of the future.

I started my career in the government over 35 years ago working night shifts at what was then the Malton Weather Office. I was among the many weather, air quality and climate staff from across Toronto who moved into the new Downsview facility in 1971, when Canada celebrated the 100th anniversary of its weather services. It was around the same time that we became a part of Environment Canada. In 1993, the addition of the Water Survey of Canada merged two historic organizations with a common interest in the physical aspects of our natural environment and how they affect people.

Many challenges lie ahead for the MSC. It is important that the initiatives started with our Treasury Board submission be pursued. Integrated physical environmental prediction, based on the natural synergies of our air, water and ice programs, should be the basis for future programs serving Canadians and supporting the rest of Environment Canada.

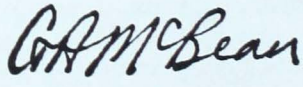
I am truly disappointed not to have been more successful in convincing key decision-makers of the fundamental value of what we do. Perhaps we should award a prize to the 40-millionth Canadian who calls us for information each year, or ask the 95 per cent of Canadians who look for weather information daily to sign a petition. Perhaps we need to activate our partners—the provinces, the media, the universities, and others around the world—to be more vocal supporters.

Our Alternate Service Delivery Study was a major accomplishment. Unfortunately, although we built our case systematically and thoroughly, the obstacles to implementing the main recommendations were ones I could not overcome. Perhaps in the future.

As a scientist, I tend to think about things having natural time scales. When I returned to government, I thought four or five years would be about right. Now that I am in my seventh year, it is time to move on. I have not decided where I will go, but I intend to continue to work professionally, and would like a shift in pace and focus.

The MSC is full of wonderful, hard-working people. You are its strength. When I travel at home or abroad, I often receive the kudos you deserve to hear personally, and for that I thank you. I also thank you for the support you have shown me and the MSC throughout my time as your ADM, and I wish you all the best for the future.

Yours sincerely,



Gordon McBean

ZEPHYR

Published by the Communications Directorate of MSC, Environment Canada, **Zephyr** is a newsletter for and about the staff of the Meteorological Service of Canada.

Zephyr is your newsletter. We would like to hear from you. Your submissions, story ideas, graphics and pictures are most welcome. Submissions for the autumn issue should be sent to us by July 31, 2000.

Reach us at:
Zephyr, Communications Directorate,
Meteorological Service of Canada
10 Wellington Street
4th Floor
Hull, Québec K1A 0H3
Phone: (819) 997-8899
Fax: (819) 953-5888
E-mail: zephyr@ec.gc.ca

Zephyr is now available electronically on the Intranet **wwwib.tor.ec.gc.ca/cd/zephyr** and the Internet **www1.tor.ec.gc.ca/cd/zephyr**

Scientist Named Next President of ISB

Ian Burton, Scientist Emeritus in the Meterological Service of Canada (MSC), Adaptation and Impacts Research Group (AIRG), was recently elected next president of the International Society for Biometeorology (ISB) at the ISB Congress in Sydney, Australia. Established in 1948, the ISB promotes reseach and scientific collaboration on the interactions between the atmosphere and the biosphere, including human health, and issues the quarterly *International Journal of Biometeorology*.

The former director of AIRG, Ian is currently a lead author and reviewer in the second working group of the IPCC Third Assessment. He recently completed a paper on the costs of adaptation for the Climate Change Action Fund, and is now working on adaptation in the water resources sector in Canada in cooperation with AIRG and former Assistant Deputy Minister, Jim Bruce.

Members of ISB were recently involved in the international Internet conference on windchill, sponsored by MSC. As a follow-up, the ISB—in cooperation with the World Meteorological Organization—will establish a new commission to continue the collaboration initiated during the conference. Abdel Maarouf, also of AIRG, has agreed to co-chair the new commission.

Information: Ian Burton, Ian.Burton@ec.gc.ca

Exhibit Honours Contributions of Weather Service

Environment Canada honoured the national weather service's contributions to the well-being of Canadians over the past 130 years by making it the subject of the Department's exhibit at the Association of Public Service Executives (APEX) symposium from May 31 to June 1. The theme of this year's symposium was "Celebrating a Century of Public Service Achievement."

Since the late 1800s, weather observations taken at locations across Canada have enabled the service to provide Canadians with valuable meteorological information for their daily decision-making. More than a century and a half ago, when the nation's first meteorological observatory was established, it used the most advanced equipment of its time: mercury thermometers, barometers and rain gauges. Today, at thousands of observing sites, this equipment is supplemented by high technology in the form of automatic stations, satellites, radar, and computers.

From trains that once sported weather-forecast symbols, through the use of telegraphs and wireless radios, to today's WeatherRadio receivers and the Internet, the way in which meteorologists have translated these observations into useable forecasts and disseminated them to the public has also changed greatly over the years. This transition in communication methods was the theme of Environment Canada's exhibit, which featured artifacts, photos, computer interpretation and video footage. It was one of more than 30 exhibits opened to the public from a wide range of federal programs, departments and agencies.

Information: Sylvie Tessier, (819) 997-3846 Sylvie.Tessier@ec.gc.ca

Internship Graduates Ready for Postings

The Meteorological Service of Canada (MSC) carried out a national recruitment drive last fall to fill vacant operational positions. At the conclusion of the drive, 13 candidates accepted offers of employment with Environment Canada. These and three other recruits from previous regional drives are the first interns to be trained nationally since the days of a centralized training branch.

Participants in the MSC Internship Program: Standing (l-r): Paul Galbraith (instructor), Ruping Mo, Charles Creese, Mike Gismondi, Doug Simpson, Paul Yang, Steve Miller (instructor). Seated (l-r): Jennifer Hay, Chris Fogarty, Cindy Vallis.

The Meteorologist Operational Internship Program (MOIP) is the initial training program for MSC, and is comprised of three main sections: academic/skills development, weather-office simulation, and on-the-job training. During the first two sections, training staff employ a mix of lectures, self-study, computer-aided learning, team-building exercises, practical exercises, weather-office simulators and other methods to facilitate learning. Once this six-month course has been completed, it is followed by approximately two months of on-the-job training in weather offices.

MOIP 1999-2000 began in November, 1999, in Montréal, Dartmouth and Edmonton, and is scheduled to wrap-up in mid to late May 2000. All 16 interns have received their postings and are eager to report to their weather offices in early June. They are:

- ❑ Aaron McCay and Ruping Mo—Pacific Weather Centre, Vancouver, BC;
- ❑ Melinda Brugman—Mountain Weather Services Office, Kelowna, BC;
- ❑ Paul Yang, David Anselmo and Neil Taylor—Prairie Aviation and Arctic Weather Centre, Edmonton, AB;
- ❑ Blair Morrow—Commercial Weather Services Office, Calgary, AB;
- ❑ André April and Natalie Hasell—Prairie Storm Prediction Centre, Winnipeg, MB;
- ❑ Charles Creese, Jennifer Hay and Doug Simpson—Thunder Bay Regional Centre, Thunder Bay, ON;
- ❑ Yoseph Mengesha—Trenton Weather Services Centre, Trenton, ON;
- ❑ Cindy Vallis—Greenwood Weather Services Centre, Greenwood, Nova Scotia; and
- ❑ Chris Fogarty and Mike Gismondi—Newfoundland Weather Centre, St. John's, NF.

Information:
Wendy Benjamin, (613) 995-4992
Wendy.Benjamin@ec.gc.ca

Graphic Area Method a Revolution in Forecasting

Aviation meteorology in Canada took a major step forward this April with the introduction of the new Graphic Area Forecast (GFA). The GFA will replace the 50-year-old alphanumeric Area Forecast, which has changed little over the past several decades.

Although the GFA has been under development for some time, it was not until recently that technology made it possible to distribute this complex forecast to all users simultaneously. In 1996, a group of meteorologists from across Canada joined representatives from Nav Canada, the Department of National Defence and Transport Canada in drafting the first prototype of the current model. The GFA's content was determined in 1997, and the production concept drafted and approved by all MSC regional managers the following year.

Four MSC Aviation Weather Centres (Kelowna, Edmonton, Toronto and Gander) will transmit regional weather information to the Meteorological Coordinating Centre (MCC) in Quebec Region, where the data will be used to create six GFAs every six hours. The forecasts sent out to users will be divided into seven different geographic areas.

The graphic format of the GFA will make it easier for users to interpret aviation weather information. Many other countries, including the United States, are already looking to adapt this leading-edge Canadian methodology for their own purposes.

Information:
Michael Crowe, (613) 995-4976
Michael.Crowe@ec.gc.ca

International Scientists Attend AMS Meeting

The 80th annual meeting of the American Meteorological Society (AMS) was held in Long Beach, California, January 9-14. The conference, which was attended by scientists from around the world, featured hundreds of scientific presentations and exhibits on themes ranging from fire and meteorology to artificial intelligence.

Among those attending were Professor G.O.P. Obasi, secretary general of the World Meteorological Organization (WMO), which provided presentations on its programs and highlighted its 50th anniversary celebrations. The National Oceanic and Atmospheric Administration celebrated its 30th anniversary with a live Internet broadcast.

Staff in front of the MSC booth in the Exhibit Hall at the American Meteorological Society meeting in Long Beach, California. Left to right: Robert Lefebvre, Ted Munn, Pierre Dubreuil, Ross Trafford, Patricia McBean, Bob Paterson, Gordon McBean, Laurie Wilson, Bill Burrows and Ted Lord.

Among the many papers presented were several by Meteorological Service of Canada (MSC) scientists, including one on "The Development of Regional Climate Variability Indices for Southern Quebec," by Alain Bourque, and one by Stewart Cohen entitled "Regional Impacts and Adaptation: New Challenges for Climate Change Reporting and Synthesis," to name a few. Short courses on topics ranging from "mesoscale modelling" to "becoming a weather entrepreneur" were also offered. Of particular note was the honour bestowed upon Jim Bruce, former Assistant Deputy Minister of the MSC, who was indoctrinated as an Honourary Member of the AMS for his long and outstanding contribution to meteorology.

The largest commercial exhibit in the atmospheric, oceanic, and related environmental sciences, the AMS conference included some 300 booths from over 130 American and foreign companies (including SEIMAC from Canada), universities, government agencies, and research institutions, featuring the latest technology, software, and services. The MSC booth featured demonstrations of the recent improvements made to the Forecast Production Assistant (FPA) software and information on careers in meteorology within the MSC. Dejan Ristic and Robert Lefebvre conducted many one-on-one information sessions with university students interested in becoming operational forecasters or taking on related assignments within MSC.

Prior to the conference, the US National Weather Service hosted a workshop on International Meteorological Cooperation on January 7 and 8, which focused on warnings and the mitigation of natural disasters, including tropical cyclones, floods, and droughts. Dr. Gordon McBean and Nancy Cutler attended the workshop on behalf of the MSC, and Dr. McBean delivered both the opening address and a presentation. He reported on the last meeting in Dallas where three dimensions of international cooperation were addressed: information access, exchange and the Internet; the future of national meteorological and hydrological services; and the role of the media and the private sector in the provision of weather services.

Next year's 81st annual AMS meeting will be held in Albuquerque, New Mexico, January 14-19.

Information:
Bruce Angle, (819) 997-3844
Bruce.Angle@ec.gc.ca

Hundreds Log On for Internet Workshop

A new milestone in electronic communications was passed when Environment Canada's Meteorological Service of Canada (MSC) hosted an international workshop on windchill April 3-7, 2000. What made this workshop truly unique is that, instead of having an auditorium full of guests and speakers who had travelled from around the world, the entire proceedings took place over the Internet.

Invited papers from distinguished scientists around the world, including Canada and the United States, were translated and posted on the web. Also featured were short papers from the MSC regions, the national weather services of nine countries, the clothing industry, the media, the Canadian Centre for Occupational Health and Safety, and even the Girl Guides.

The organizing committee of the Internet Workshop on Windchill. Left to right: Joseph Shaykewich, Annette Goessl, Doug Holdham, Gregg Gregorian, Abdel Maarouf, Randall Osczevski, Heather Aucoin, Dawn McDonald. Not pictured: Roland Mandeville, Sylvie Tessier, Liette Cormier, Pierre Tourigny

Those who registered for the workshop were invited to send in comments and read comments from others. The chairpersons of the six different sessions posted guidelines and questions for participants, screened the comments sent in, and wrote daily summaries—all from the comfort of their own offices or homes.

One measure of the success of the workshop is that over 400 people registered from Canada, the United States, New Zealand, Australia, numerous European countries, India, China and Mongolia. Some 250 messages were posted over the five days of the workshop, along with over 37,000 page views and 5,000 viewer sessions. Some additional messages were received and posted even after the closing date of April 7.

The workshop page at http://windchill.ec.gc.ca/ will be available for reference until April 2001. In addition to the papers and summaries, a workshop summary will be available in May, and the proceedings will be posted this summer.

Information:
Douglas Holdham, (416) 739-4189
Doug.Holdham@ec.gc.ca

MacIver Awarded for Research Contributions

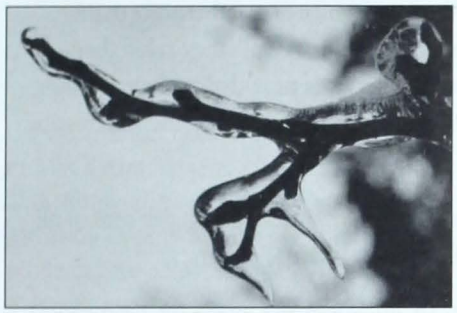
The MSC Senior Scientists' Committee recently presented Don MacIver with the Atmospheric and Climate Science Directorate (ACSD) Winter 1999/2000 Research Award. The $1,000 cash award is part of a regular Merit Award Program that recognizes and encourages exceptional performance that contributes to research in a tangible way.

Don was honoured for many reasons, including his long-term record of exceptional service, his key leadership in planning and carrying out an international workshop on behalf of the Intergovernmental Panel on Climate Change in 1998, his ongoing efforts to link the scientific and policy communities, and his efforts to use his environmental science background to address real-life issues in schools, local governments and sustainable communities.

The ACSD Research Award is open to individuals and groups within ACSD. Nominations for the summer award closed on June 1, and the results will be announced later in the season.

Information:
Ron Stewart, (416) 739-4122
Ron.Stewart@ec.gc.ca

Ice Storm Voted Top Weather Story of Century



Environment Canada recently announced the results of its "top weather stories of the 20th century" poll, which was held to commemorate the nation's most significant weather events. Approximately three thousand Canadians logged on to Environment Canada's Green lane to cast their votes—naming the 1998 ice storm as the most significant weather event, and placing the dustbowl of the 1930s second, and the sinking of the *Titanic* third.

The ice storm, which took place January 4-9, 1998, was one of the most destructive and disruptive storms in Canadian history. It caused hardship for four million people in Eastern Canada, and cost $3 billion—with losses including millions of trees, 130 transmission towers and 120,000 kilometres of power and telephone lines. Power outages lasted from several hours to four weeks.

Between 1933 and 1937, the Prairies experienced only 60 per cent of their normal rainfall. This "dustbowl" effect caused thousands of livestock to perish due to starvation and suffocation, withered crops, and forced 250,000 people across the region to abandon their land and seek better lives elsewhere.

The world's worst iceberg accident occurred on April 15, 1912, when the "unsinkable" *Titanic* collided with an iceberg 700 kilometres southeast of Newfoundland. The disaster caused the deaths of 1,500 people and made headlines around the world.

Although extreme weather events have been observed throughout the last hundred years, the frequency and severity of storms, floods, droughts and other events has had an increasingly costly impact on Canadians in the past two decades.

Selections were compared with those of Canada's best known television weather personalities. Although the rarity and severity of the event in terms of economic and human loss influenced their selections, the final results mirrored those chosen by the public.

Information:
David Phillips, (416) 739-4316
David.Phillips@ec.gc.ca

Survey Results Help Understand Media Needs

The media are an important partner of the Meteorological Service of Canada (MSC), as they represent the most effective means of disseminating our information, especially warnings, to the public. MSC, in turn, provides them with valuable content for their audience. In the interest of continuing this positive relationship, MSC conducted a survey of radio, television and daily print-media outlets in Canada during two separate phases in 1999.

The over 80-per-cent response rate for the survey highlights the media's recognition of the importance of weather information and products to their programming. Overall, they rated their satisfaction with the weather services provided to them as high, indicating that the MSC is meeting their needs. Other interesting results included:

- Weather information is "very important" to 82 per cent of all media outlets and 92 per cent of radio outlets.
- Environment Canada (EC) is the most common source of weather information (60 per cent), followed by broadcast news (32 per cent) and the WeatherNetwork or MétéoMédia (20 per cent).
- The Internet is by far the most popular means of accessing weather information.
- Eighty-three per cent of media outlets and over 90 per cent of radio and television outlets disseminate weather warnings.
- Over 70 per cent of outlets edit the weather information they receive before disseminating it.
- Most media outlets have contacted EC, and are very satisfied with EC staff knowledge, courtesy and responsiveness.
- Seventy per cent of media outlets have received public feedback on weather forecasts.

The survey results are being used to shape MSC's ongoing relationship with this important partner.

Information:
Heather Aucoin, (416) 739-4978
Heather.Aucoin@ec.gc.ca

MAGS Launches Second Phase

The Mackenzie GEWEX Study (MAGS) is the main Canadian contribution to WCRP's Global Energy and Water Cycle Experiment (GEWEX). It has evolved into the premier project in the world that addresses the issue of water resources in relation to climate in northern regions.

The overall objectives of MAGS are to:

- understand and model the response of energy and water cycles of the Mackenzie basin to climate variability and change;
- determine the impacts of its atmospheric and hydrological processes and feedbacks on the regional and global climatic systems; and
- apply our improved predictive capabilities to climatic, water resource and environmental issues in cold regions.

During the first phase of MAGS (1995-2000), the emphasis was placed on developing a good understanding of the many atmospheric and hydrological processes that influence this region. Over the second and final phase (2001-2005), the emphasis will be placed on addressing and modelling the collective physical system and applying our unified knowledge and predictive capability to tackle water-resource issues in the Mackenzie basin, as well as in other parts of western Canada.

MAGS is a partnership among the university, government and private sectors. Most of the research is carried out by Environment Canada (specifically MSC, the Environmental Conservation Service, and Prairie and Northern Region) and the Canadian university community. The second phase (MAGS-2) involves 23 government projects and 20 university investigators from eight different institutions, as well as participation from the private sector, including BC and NWT Hydro.

The Natural Sciences and Engineering Research Council of Canada recently approved funding for university participation in MAGS-2 at a level of $1 million/year—the only proposal to receive full funding under this year's partnership competition. Each of the government components will fund its own scientific effort, and project infrastructure will be jointly funded.

Information:
Barry Goodison, (416) 739-4345
Barry.Goodison@ec.gc.ca

Science Presentation on Clean Air

Some of MSC's leading scientists joined experts from Health Canada in speaking at a special Science Presentation on Clean Air on April 28 at the Château Cartier in Aylmer, Québec. Michel Béland, Director General of MSC's Atmospheric and Climate Science Directorate, chaired the meeting, while Assistant Deputy Minister Gordon McBean gave an overview of the presentations to come.

More than 70 senior federal public servants and ministerial staff, including Environment Canada's Deputy Minister Alan Nymark and members of the Department's Executive Management Board, came to hear about the state of science related to clean air and the need for that science to continue for sound and informed policy-making decisions.

Four scientists from MSC's Air Quality Research Branch (AQRB) took their turn at the podium, including research scientist Kurt Anlauf, who opened with a talk on how the atmosphere works. Janucz Pudykiewicz explained the use of environmental models based on modern mathematical techniques in predicting air quality, while Robert Vet spoke about the monitoring programs that are undertaken in both EPS and MSC related to air quality issues. Jeff Brook discussed the exposure and human health effects of ambient air pollution.

Joan Masterton, Acting Director of MSC's Science Assessment and Integration Branch, explained her branch's role in connecting the atmospheric science and policy communities—within Environment Canada, in federal/provincial venues, in the North American context, and internationally. Bill Appleby, Director of MSC, Atlantic Region, discussed his region's Smog Forecast Program, which is the only one of its kind in Canada.

Health effects and science-based health assessments for air pollutants were the subject of presentations by Richard T. Burnett and Barry Jessiman, both of the Environmental Health Directorate in Health Canada.

The final word went to Don McKay, Director of AQRB, who explained that all people experience some level of exposure to ambient pollutants, and that health effects can be detected even at low levels. He explained that process research, modelling, and monitoring provide the tools to help us manage our impact on the delicate balance of the earth's atmosphere. Dr. McBean announced that Jacques Vanier, MSC's regional director in Quebec, will lead a new MSC air quality initiative, which will build on the success of the air quality prediction program in New Brunswick and make it part of a national focus.

The presentation reaffirmed the importance of science in supporting policy decisions on clean air, as well as the importance of MSC's work in warning and informing Canadians about the quality of air that they breathe. The presentation also highlighted the partnership between Environment Canada and Health Canada in providing the science to support action on ambient air pollution.

Information:
Lucie Lafrance, (819) 953-9740
LucieS.Lafrance@ec.gc.ca

UV Radiation to Increase this Summer

Environment Canada scientists predict that the average ozone coverage over Canada will be six per cent thinner than normal for the period from May to August 2000 based on recent measurements from Canadian ozone stations and satellite data.

Studies by international scientists showed severe 60 per cent depletion in the Arctic ozone layer this winter and spring—reinforcing concerns that Arctic ozone may continue to decline due to the effects of ozone-destroying industrial chemicals and varying wind patterns and temperatures affected by climate change.

The thinner ozone layer is expected to increase the ultraviolet (UV-B) radiation reaching earth by seven per cent. This summer, Environment Canada will once again issue daily UV index forecasts to encourage Canadians to take precautions to minimize exposure to the sun—particularly on days when UV levels are high.

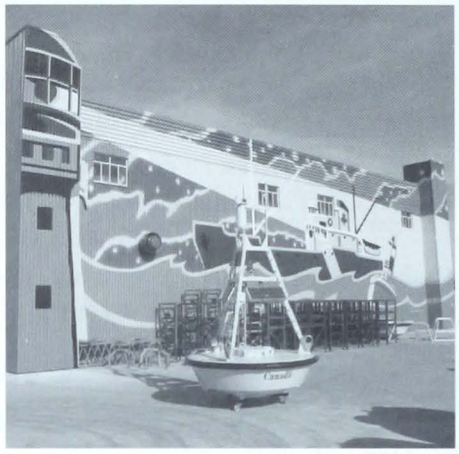
Information:
David Wardle, (416) 739-4632
David.Wardle@ec.gc.ca

Victoria Buoy Facility Opening

A new Buoy Repair and Paint Facility was opened at the Department of Fisheries and Oceans (DFO)/Canadian Coast Guard (CCG) base in Victoria, British Columbia on April 3.

Brian O'Donnell, Regional Director, Pacific and Yukon Region, was on hand to represent the MSC, which contributed 10 per cent of the cost of the $3.5 million facility. Also attending were John Adams, Commissioner of the CCG, and Donna Petrachenko, Regional Director General of DFO, both of whom spoke highly of the longstanding partnership between DFO and Environment Canada. The event, which coincided with the annual staff training session for the entire Pacific fleet, was attended by the United States Coast Guard from Seattle, Washington, and Juneau, Alaska.

MSC's Buoy Program manager Ron McLaren, who had a couple of three-metre weather buoys equipped and on display for the ceremony, was also recognized for his dedication and contribution toward the design and building of the buoy centre. In October of this year, Environment Canada will host the international World Meteorological Organization/International Oceanographic Commission Data Buoy Cooperation Panel meeting at this world-class facility.



The beautiful theme mural on the side of the Buoy Repair and Paint Facility in Victoria is visible from the water.

Brian O'Donnell, Regional Director of MSC, Pacific and Yukon Region, at the opening of the new Canadian Coast Guard Buoy Repair and Paint Facility in Victoria, British Columbia. In the background is the paint room and a three-metre Discus Buoy used extensively to monitor weather conditions off the west coast of Canada.

Information:
Brian O'Donnell, (604) 664-9090
Brian.O'Donnell@ec.gc.ca

Baddeck Weather Observer Retires

Environment Canada presented volunteer climate observer Dolly Ryan with a Certificate of Achievement this April, in recognition of her dedication and excellence in collecting climate data for the Baddeck area of Nova Scotia over the past 38 years.

Every day since February 1962 until she retired from her post on January 31 of this year, Dolly headed into her backyard each morning and evening to record maximum and minimum temperatures and precipitation levels. This kind of data, which is collected by observers across the country, not only enables meteorologists from the Meteorological Service of Canada (MSC) to support and verify local weather forecasts, but also is used by many individuals, organizations and businesses—including the agricultural, forestry, tourism, transportation and construction sectors—in planning and carrying out climate-sensitive activities.

The only inland location in Cape Breton where this type of data was collected on behalf of the MSC, Baddeck has had its climate data recorded—with some interruptions—since 1874. Continuous records have been kept since August 1948, and have provided excellent information for both climatologists and meteorologists. Since Dolly's presentation, arrangements have been made with the Alexander Graham Bell Historical Museum to take over observing duties and display the data recorded for Baddeck. The site should be in operation before the summer tourist season begins.

Dolly A. Ryan and her granddaughter at a retirement presentation honouring her longstanding commitment as a volunteer climate observer.

Information:
Paul Deschambault, (902) 426-7922
Paul.Deschambault@ec.gc.ca

Convective Workshop Held in Winnipeg

Environment Canada, the University of Winnipeg and the Canadian Meteorological and Oceanographic Society hosted the fifth annual Northern Plains Convective Workshop in Winnipeg, April 25-27, marking the first time the event has ever been held in Canada.

Intended to improve the understanding and forecasting of severe weather, the workshop attracted a wide range of participants from universities and weather centres across the central and northern plains of Canada and the United States.

The theme was "severe weather preparedness," and the keynote speaker was Al Moller, a senior meteorologist with the United States National Weather Service in Dallas, Texas.

The workshop focused on a broad range of convective weather topics, including summer severe thunderstorms, severe weather forecasting techniques and tools, warning preparedness and dissemination, radar and satellite applications, and weather modification. It was an excellent opportunity to share new ideas, approaches and techniques, and hardware and software through presentations and hands-on workshops.

The workshop was open to government and private agencies, researchers, professors, students, television weather staff and others interested in convective weather or related weather-warning preparedness. A number of television weather staff and other media attended workshop panel discussions this year on warning dissemination, and offered some interesting perspectives from the broadcasting industry.

Information:
Pat McCarthy, (204) 983-1904
Pat.McCarthy@ec.gc.ca

Summer Severe Weather Awareness Week

Thunder clouds blacken the sky and hurl down heavy rain, lightning, thunder and sometimes even hail and tornadoes. Each day about 44,000 thunderstorms occur worldwide, producing an average of 100 lightning flashes per second.

Each of the Prairie provinces typically experiences half a million lightning strikes and two lightning-related deaths every year. Planning ahead and knowing what to do during a thunderstorm can save your life. To help reduce the risks associated with these occurrences, MSC staff in Prairie and Northern Region hold a special Summer Severe Weather Awareness Week during the first week of May each year.

The 2000 campaign kicked off with an official opening ceremony for the new Winnipeg Doppler radar, and featured open houses for media in other major centres. Saskatchewan MSC staff participated in the Prairie Region Radio and TV News Directors Association conference. All in all, the effort was a resounding success, generating 70 media interviews and 435 minutes of air time valued at $135,000.

As part of an extended awareness and safety initiative, Prairie and Northern Region will also temporarily loan Weatheradios to special event and outdoor festival organizers this summer.

Lightning is a common element of severe thunderstorms in the Prairies.

Information: Nancy Hnatiuk, (204) 983-4819
Nancy.Hnatiuk@ec.gc.ca

Staff Lauded for Helping Needy Families

At Christmas, staff in our small office in Ontario Region used to exchange inexpensive gag gifts, which an employee, dressed as Santa Claus, would hand out. About a decade ago, a "wise man" in our midst suggested collecting the money that would have been spent on these gifts and using it to help out a needy family.

That first year, the family comprised a single mother, a young boy and a newborn, and this Grinch felt his heart double in size. We arrived with warm clothes and needed food, as well as that oh-so-unexpected Teenage Mutant Ninja Turtle play figure. Since those early days, we have shifted our focus to bigger families with older children and special needs, who are less likely to receive help.

One year, we adopted a single father with three sons. He needed a night school course to upgrade his skills to get a better job, and we raised the tuition. Another time it was a single mother who had contracted AIDS through a blood transfusion, and been abandoned by her husband, family and friends. Her three children slept on the floor, and were constantly sick because of insufficient warm clothes. We brought them good beds and winter boots. I will always remember the look in her eyes when we delivered our donations. That was her last Christmas.

George Weaver and Eileen Turner accept the Master of Christmas award on behalf of their office.

Our campaign begins each year with a phone call, in mid November, to Centre 55, an adoption agency in the east end of Toronto that gets word of needy families through various sources, such as churches, schools and welfare offices. In 1999, our office received the Master of Christmas award from Toronto City Hall for going those extra few steps to improve the lives of people less fortunate than ourselves. Thanks to everyone who contributed—this award is for you.

Information:
George Weaver, (416) 739-4959
George.Weaver@ec.gc.ca

Ontario Weather Observer Phillip Graham

Volunteer climate observer Phillip Graham (right) with MSC senior meteorologist David Phillips at the screening of the Nature of Things episode "Weather—Dragons of Chaos," which previewed on World Meteorological Day, March 23, at Ontario Region in Downsview. Graham, a 50-year volunteer climate observor who appeared in the episode, was also given a personal tour of the weather centre.