

Behind the scenes



Photo by: Jill Mahoney

Finding out what it's like to work the evening shift at the Ottawa Weather Office, Environment Canada's new Deputy Minister, Mel Cappe, delivers the 8 p.m. local weather conditions for broadcast on Weatheradio. Mr. Cappe also toured

the Ice Services Branch during his June 9th visit to La Salle Academy facilities. There he saw first-hand how ice analysts and forecasters use remote sensed data from satellite and aircraft to produce ice and iceberg services for the marine community.

NEW SURVEY FINDS MORE CANADIANS ARE "TUNED INTO" WEATHERADIO

A RECENT SURVEY ADMINISTERED BY THE PROGRAM ASSESSMENT GROUP OF AES POLLED OVER 1,500 CANADIANS FROM ACROSS THE COUNTRY TO DETERMINE THEIR PUBLIC AWARENESS OF WEATHERADIO. WEATHERADIO IS AN ENVIRONMENT CANADA SERVICE BROADCASTING METEOROLOGICAL INFORMATION 24 HOURS A DAY, 7 DAYS A WEEK, THAT CAN BE PICKED UP BY ANYONE WHO HAS A SPECIAL RECEIVER.

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A t m o s p h e r i c E n v i r o n m e n t S e r v i c e

ZEPHYR

Volume 1 Number 2

Service
Through
Science

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THE FINAL RESULTS SHOWED THAT **27%** OF CANADIANS HAVE HEARD OF THE WEATHERADIO SERVICE – AN INCREASE OF ABOUT 1.3 MILLION CANADIANS SINCE 1989. RESIDENTS OF THE ATLANTIC REGION WERE THE MOST AWARE OF THE SERVICE (**30%**), WHILE RESIDENTS OF MANITOBA/SASKATCHEWAN (**20%**) AND BRITISH COLUMBIA (**24%**) WERE THE LEAST AWARE OF IT.

OF THE 27% OF CANADIANS WHO HAD HEARD OF WEATHERADIO, OVER HALF (**54%**) REPORTED HAVING LISTENED TO WEATHERADIO IN THE PAST. RESIDENTS OF B.C. (**58%**) AND ONTARIO (**62%**) HAD THE HIGHEST PERCENTAGES OF REPORTED LISTENERS, WHILE RESIDENTS OF ALBERTA (**40%**) AND MANITOBA/SASKATCHEWAN (**39%**) TURNED IN SIGNIFICANTLY LOWER LISTENER LEVELS.

USERS REPORTED THAT THEIR MAIN REASON FOR LISTENING TO WEATHERADIO WAS TO EITHER:

- HELP THEM PLAN OUTDOOR ACTIVITIES (**35%**),
- FOR PERSONAL ENJOYMENT OR OUT OF CURIOSITY (**23%**), OR
- FOR WORK (**18%**) OR TRAVEL-RELATED REASONS (**17%**).

OF ALL THOSE SURVEYED, A SIGNIFICANT MAJORITY OF WEATHERADIO USERS (**89%**) REPORTED BEING "VERY SATISFIED" WITH THE SERVICE.

A STRONG MAJORITY OF CANADIANS (**61%**) ALSO REPORTED THAT THEY WOULD TUNE INTO WEATHERADIO IF IT WERE AVAILABLE ON REGULAR RADIO EQUIPMENT SUCH AS CAR RADIOS.

FOR COPIES OF THESE RESULTS, CONTACT JASMIN PAOLA, POLICY PROGRAM AND INTERNATIONAL AFFAIRS BRANCH, AT (416) 739-4987.

THE EVALUATION NETWORK NEWSLETTER HITS THE NEWSSTAND

Are you looking for the latest survey results on AEP issues? Look no further...the Program Assessment Group of PPIB has recently established the Evaluation Network Newsletter. The newsletter is intended to "network" all parts of Environment Canada that deal with the Atmospheric Environment Program on current polling results and client-based assessments.

If you have interesting survey results or client-based information that you would like to share with the rest of the country call the editor, Jasmin Paola (416) 739-4987.

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Published four times a year by the Communications Directorate of Environment Canada, Zephyr is a staff newsletter for the employees of the Atmospheric Environment Service, Environment Canada.

Our mission is to provide quality service through science for the sustainable development of Canadians and our environment.

Zephyr is **your** newsletter...
we would like to hear from you.

Please forward your submissions and story ideas for the

Fall issue by:

October 3, 1994.

Graphics and pictures are more than welcome.

HOW TO REACH US

Claudia Del Col/Editor-in-chief

ZEPHYR

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DOTS DELCOLC



A snapshot of the Atmospheric Environment Program

DEFINITION:

The totality of activities and services delivered by the Atmospheric Environment Service, together with components of the DOE Regions, comprise the Atmospheric Environment Program or AEP.

AES leads, serves as the national focus, provides operational support, and delivers some services of the Atmospheric Environment Program. Support to AEP service delivery includes training, telecommunications, technology, standards and the supercomputer facility. All of these activities are supported by vigorous research and development.

The AEP has a strong operational focus, delivering environmental services

such as the provision of weather warnings, climate and air quality information and ice surveillance data.

OUR MOTTO:

People providing quality service through science for the sustainable benefit of Canadians and our environment.

A VISION FOR THE AEP: THE NEXT FIVE YEARS

In five years, the AEP will be a leaner, more responsive and valued element of Environment Canada. The components of the Program will work together to:

- Enable Canadians to improve their

capacity to practice sustainable development

- Provide the knowledge base and scientific understanding to support effective decision-making and policy formulation
- Align science and policy imperatives
- Foster economic prosperity and international competitiveness for Canada by means of effective and efficient environmental information and services.
- Promote adaptation by Canadians to the present and future environment.
- Encourage action by Canadians to improve environmental quality.

THE AEP MANAGEMENT COMMITTEE

AES COMPONENT

- **Gordon McBean** (ADM, AES)
- **Nancy Cutler** (Director General, National Weather Service Directorate)
- **Hubert Allard** (Director General, Canadian Meteorological Centre)
- **Phil Merillees** (Director General, Climate and Atmospheric Research Directorate)
- **Bill Pugsley** (Director General, Canadian Forces Weather Service)
- **David Grimes** (Director, Policy, Programs, and International Affairs Branch)
- **Mary Helen Kaizer** (Human Resources Advisor)
- **Cal Carter** (Financial Advisor)
- **Joan Butcher** (Communications Advisor)

REGIONAL DIRECTORS FOR AEP

- **Fraser MacNeil** (Atlantic Region, Atmospheric Environment Branch)
- **Jacques Vanier** (Quebec Region, Atmospheric Environment Branch)
- **Steve Lapczak** (Ontario Region, Environment Services)
- **Barry Greer** (Ontario Region, Environmental Monitoring)
- **Mike Balshaw** (Prairie and Northern Region, Environmental Monitoring)
- **Brian O'Donnell** (Prairie and Northern Region, Environmental Services)
- **Gary Wells** (Pacific and Yukon Region, Environmental Services)
- **Fred Herfst** (Pacific and Yukon Region, Environmental Monitoring)



CLOSE-UP: THE POLICY, PROGRAM AND INTERNATIONAL AFFAIRS BRANCH

WITH OFFICES IN DOWNSVIEW AND HULL, PPIB PROVIDES A WIDE VARIETY OF SERVICES SUPPORTING THE AEP IN AREAS OF CORPORATE ACCOUNTABILITY, MANAGEMENT SERVICES, POLICY DEVELOPMENT AND ADVICE, INTERNATIONAL AFFAIRS, SCIENCE ASSESSMENT, SCIENCE-POLICY INTEGRATION, AND BUSINESS PLANNING AND DEVELOPMENT. PPIB IS DIVIDED INTO FIVE BROAD AREAS:

OFFICE OF THE DIRECTOR

DIRECTOR: DAVID GRIMES

THE OFFICE OF THE DIRECTOR, WITH OFFICES IN DOWNSVIEW AND HULL, OVERSEES FINANCIAL MANAGEMENT WHICH INCLUDES PLANNING, REPORTS AND BUDGETS. IT ALSO WORKS AS A BRANCH SUPPORT IN THE AREAS OF ACCOMMODATION, SECURITY, TRAINING, INVENTORY, PROCUREMENT OF SUPPLIES AND SERVICES, SUPPORT STAFF COORDINATION AND HUMAN RESOURCE PLANNING.

CORPORATE ACCOUNTABILITY AND MANAGEMENT SERVICES

RICK BERRY

WITH OFFICES IN DOWNSVIEW AND HULL, THIS DIVISION IS RESPONSIBLE FOR THE SENIOR MANAGEMENT COMMITTEES, THE AEP ACCOUNTABILITY REGIME AND PROGRAM PERFORMANCE REPORTING. THIS UNIT ALSO HANDLES MINISTERIAL CORRESPONDENCE, BRIEFING MATERIAL AND THE PREPARATION OF SENIOR MANAGEMENT REPORTS.

POLICY AND INTERNATIONAL AFFAIRS

JOHN D. REID

BASED IN HULL, THIS AREA PROVIDES DIRECTION AND SUPPORT TO AES POLICY DEVELOPMENT, GIVES ADVICE TO THE POLICY COMMUNITY WITHIN AND OUTSIDE ENVIRONMENT CANADA, AND ENSURES THAT ATMOSPHERIC SCIENCE IS INCORPORATED INTO DEPARTMENTAL POLICY.

SCIENCE ASSESSMENT AND POLICY INTEGRATION

KEITH PUCKETT

THIS DEPARTMENT, WITH OFFICES IN DOWNSVIEW, IS RESPONSIBLE FOR THE ADVANCEMENT OF THE SCIENCE PROGRAM THROUGH THE DEVELOPMENT OF SCIENCE-POLICY LINKAGES, THE PROVISION OF CONSULTATION AND EXPERTISE IN ATMOSPHERIC ISSUES ASSESSMENTS, AND IMPACT ANALYSIS. AREAS OF RESPONSIBILITY INCLUDE CLIMATE CHANGE, ACID RAIN, SMOG, OZONE DEPLETION, AND HAZARDOUS AIR POLLUTANTS.

BUSINESS PLANNING AND DEVELOPMENT

MARK TRUEMAN

BASED IN DOWNSVIEW, THE BRANCH LEADS AND COORDINATES NATIONAL OPERATIONAL POLICY INITIATIVES RELATED TO AEP AND ESTABLISHES AND INTEGRATES THESE POLICIES. IT ALSO PROVIDES STRATEGIC PLANNING FOR AEP AND CARRIES OUT CLIENT-BASED ASSESSMENTS.

TEST YOURSELF and see...

"CAN I LEARN TO COPE WITH CHANGE?"

One of the few things we can count on is change -- especially in this day and age.

How well do you cope with change in your personal and professional lives?

Take the following quiz to find out.

Answer the following questions and score yourself at the end.

1. Can you accept that what you do today can radically change tomorrow?
 2. Are you open to any new ideas from your bosses and colleagues?
 3. Do you refrain from pining for "the good old days?"
 4. Do you realize that change is seldom an option but a matter of survival?
 5. Do you like to learn new techniques to perform your current job functions?
 6. Do you think of technology as fun and intriguing, rather than foreign and terrifying?
 7. Do you *believe* you can make the changes necessary to your job?
 8. When faced with a problem, can you generate several ways to solve it?
 9. Do you always strive to learn something new or do something better?
 10. Are you generally curious by nature? Do you work to satisfy that curiosity?
- Tally up your number of yes answers and turn to page 7 for your score results...**

(Reprinted with the permission of Working Together, Dartnell, 4660 N. Ravenswood Ave, Chicago, IL 60640, (800) 621-5463.)



IT'S NOT THE HEAT... IT'S THE HUMIDITY

Just say the word humidity and many of us think of sleepless nights, sticky clothes, and dripping foreheads. Not a pleasant image and almost enough to make us long for those frosty January nights. Zephyr sat down with resident climate expert David Phillips to get the lowdown on why humidity causes such discomfort.

"In hot weather," David explains, "our body regulates its core temperature of 37°C by calling upon millions of sweat glands to shed great quantities of water. The evaporation of sweat removes heat from our bodies, leaving our skin feeling cool." Evaporation, however, works best when the air is dry. "In moist air," David adds, "perspiration cannot evaporate as quickly as it should to keep the body cool and dry. The consequence is greater discomfort as the combination of heat and moisture makes us feel hot and sticky." Because high humidity reduces the loss of heat from our bodies, we may actually feel

warmer on a humid day, than we would on a day that has a higher temperature but is drier.

Over the years, David explained, weather forecasters and climatologists have come up with a number of ways to describe the feeling of hot, humid weather. Some of these include humiture, apparent temperature, humisery, summer simmer index, heat stress and humidex. Of all these attempts, only humidex has gained wide acceptance in Canada, and is the one most familiar to Canadians.

The humidex, in fact, is a Canadian invention, first used in 1965. It combines both temperature and humidity into one figure to reflect what the air actually feels like outside. At times, the humidex can be a much more realistic measure of comfort level than either temperature or humidity alone.

Of course, there are other factors which may affect summer comfort levels,

such as age, health, degree of physical exertion, type of clothes worn, and other weather conditions such as wind speed and amount of sunshine. However, despite its weaknesses, the humidex has stood the test of time and remains the most popular way in Canada of determining how hot it actually feels outside.

"Prolonged high humidities are unusual in Canada," David notes, "except in southern and eastern Ontario and on occasion in southeastern Manitoba and southwestern Quebec when warm, moist air pushes northward from the Gulf of Mexico and the Caribbean." Generally, humidex decreases the farther north you go.

What's the highest Canadian humidex on record? "Over the last 41 years, since hourly archives began," David explains, "the highest humidex occurred at Windsor, Ontario: 52.1°C on June 20, 1953." At the time, the temperature was 35°C and the dew point 29°C--the humidex was calculated years later, from recorded data.

HAVING A



HAIR DAY?

It may be the humidity. In fact, the amount of moisture in the surrounding air can account for a difference in hair length of about 3%! In moist air, people with naturally curly hair experience the frizzies as their hair increases in length. Under the same conditions, people with long, straight hair find it going limp.

The hair's sensitivity to humidity was scientifically recognized back in 1783 by Swiss physicist, Horace de Saussure. He found hair such a reliable indicator of good or bad weather that he developed the hygrometer -- a weather instrument which uses hair as the primary element to measure atmospheric moisture. Strands of hair or even a single hair are fixed inside the instrument, and as the humidity of the surrounding air changes,

the hair lengthens or shortens. This, in turn, causes a pointer or pen to move across a dial or chart to measure the change in humidity.

Over the years, many organic materials such as skin, sheep gut, and hemp rope were used in hygrometers. However, human hair was preferred, especially blonde or red hair because they are both more reactive to humidity than brunette and black hair. Today, the hygrometer is not as widely used as hair responds very slowly at low temperatures and not at all below -40°C. Instead meteorologists most commonly use the psychrometer for a more accurate measure of humidity levels.

-compiled with files from David Phillips



IN FOCUS

THE FEDERAL GOVERNMENT'S SCIENCE AND TECHNOLOGY REVIEW

On June 28, the federal government launched a Science and Technology (S&T) Review to determine how federal investments in science and technology can best support Canadian society in three key areas:

- the creation of wealth and jobs within the context of sustainable development
- the enhancement of the quality of life
- the advancement of knowledge

In the discussion paper, *Building a Federal Science and Technology Strategy*, the government outlines how "innovation, based upon a sound foundation of science and technology, will create jobs and permit the integration of economic with environmental goals to enhance the quality of life for all Canadians." The paper

stresses that "Canada needs to become a nation of experimenters, a nation of entrepreneurs and a nation of innovators."

THE GLOBAL ECONOMY IS UNDERGOING A TECHNOLOGICAL REVOLUTION PERHAPS AS STRIKING AS THE INDUSTRIAL REVOLUTION OF THE PAST CENTURY.

-BUILDING A FEDERAL SCIENCE AND TECHNOLOGY STRATEGY

The Review, led by Industry Canada, comes at a time when governments must control spending. In the 1994 Budget, Finance Minister Paul Martin called for a comprehensive review of the federal government's S&T activities to ensure that investments were yielding maximum returns for the social, economic and environmental benefit of Canada.

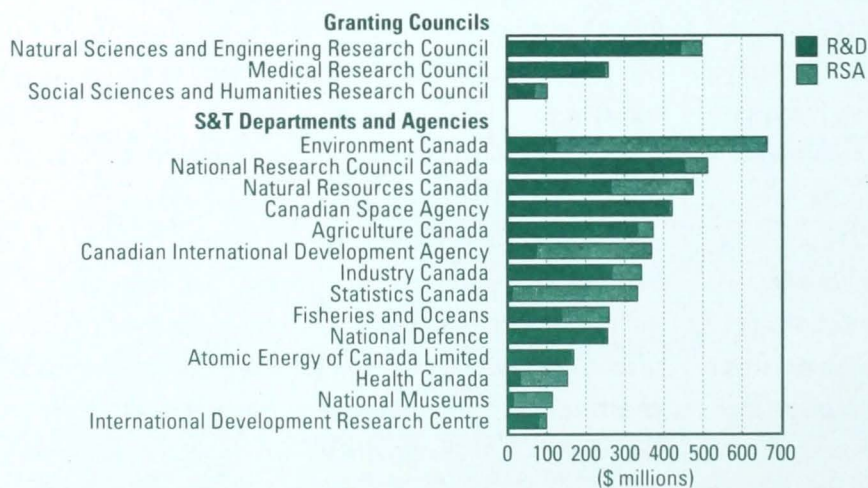
The federal S&T Review, one of more than 20 government-wide or DOE reviews currently under way, has been identified by Deputy Minister Mel Cappe as an important priority for Environment Canada. Science and technology, as we all know, is the cornerstone of DOE.

FEDERAL FUNDING OF S&T ACTIVITIES

A recent snapshot of federal expenditures shows that about \$7 billion is invested in S&T annually, spread over almost 50 organizations. Over 90% of the resources go to 17 departments and agencies (see Table 3.1). An approximate breakdown includes:

- **\$1 billion** supporting wealth and job creation through industrial science and technology and support of technology centres
- **\$1 billion** supporting industrial research and development through tax incentives
- **\$1 billion** supporting research and development in universities and other non-commercial organizations
- **\$1.8 billion** performing research and development in federal laboratories
- **\$2.2 billion** conducting and contracting for related scientific activity.

Figure 3.1 — Federal S&T Expenditures, by Department and Agency, 1993-94



Source: Statistics Canada, *Federal Scientific Activities*, Catalogue No. 88-204.

USERS OF S&T FUNDING

Statistics show that there are three major users of federally funded S&T: fed-



eral laboratories, industry and Canadian universities.

The government's scientific establishment is by far the largest performer and, in 1993-94, accounted for \$3.5 million (about 59%) of the total investment. The expenditures were spread over 150 labs and establishments across the country, staffed by over 35,000 people.

The next largest share, \$977 million, or almost 17%, was spent in the industry sector. Canadian universities received \$971 million (16%) of all federal funding. The remaining 8% was accounted for by private non-profit organizations, provincial and municipal governments, foreign performers, and others.

THE S&T CONSULTATION PROCESS

The S&T Review is made up of three main components:

1. public consultations with interested Canadians
2. an internal review, by an interdepart-

mental task force, of the S&T activities of federal government departments and agencies

3. an independent assessment by the National Advisory Board on S&T

The internal government-wide review is led by an ADM Task Force of science and technology departments of which Bob Slater, ADM of ECS, is representing DOE.

The internal review is divided into three government-wide task groups:

- **Wealth and Job Creation with DOE member Jennifer Moore**
- **Quality of Life with AES' John Reid**
- **Advancement of Science with DOE member Alex Chisholm**

Environment Canada's work on the S&T Review is being coordinated through a steering group which can be reached at (819) 994-5195.

The consultation process of the S&T Review is intended to help the federal government answer fundamental questions on S&T activities. First, given current needs, what should Canada do in the area of science and technology? Second, given

these national priorities, is the federal government doing the best it can with the resources it has?

Interim findings will be made available throughout the consultation process, and will ultimately shape the final federal S&T strategy. The strategy is slated for publication in early 1995.

THE GOVERNMENT OF CANADA BELIEVES THAT INNOVATION, BASED UPON A SOUND FOUNDATION OF SCIENCE AND TECHNOLOGY, WILL CREATE JOBS AND PERMIT THE INTEGRATION OF ECONOMIC WITH ENVIRONMENTAL GOALS TO ENHANCE THE QUALITY OF LIFE FOR ALL CANADIANS. RECOGNIZING THAT THE EARTH ON WHICH WE LIVE HAS FINITE LIMITS, THE DECADES AHEAD WILL PRESENT EXTRAORDINARY CHALLENGES AND OPPORTUNITIES. FROM THE LARGEST URBAN CENTRES TO THE MOST REMOTE RURAL LOCATIONS, CANADA NEEDS TO BECOME A NATION OF EXPERIMENTERS, A NATION OF ENTREPRENEURS AND A NATION OF INNOVATORS. -PREFACE, BUILDING A FEDERAL SCIENCE AND TECHNOLOGY STRATEGY

WHERE CAN I FIND OUT MORE?

To obtain copies of, *Building a Federal Science and Technology Strategy*, or its companion, *A Resource Book for the Science and Technology Consultations*,

contact:

Industry Canada / Distribution Centre
(613) 954-5716

Further information about the S&T Review and the consultations may be obtained from:

Secretariat for Science and Technology Review
Industry Canada
235 Queen Street
OTTAWA, ON K1A 0H5

Tel.: (613) 943-7034 Fax: (613) 993-4812 Internet: s&t.review@istc.ca

TALLY YOUR RESULTS FROM PAGE 4

TOTAL NUMBER OF **YES**

ANSWERS _____

YOUR SCORE: A SCORE OF EIGHT OR MORE **YES** ANSWERS SUGGESTS THAT YOU ARE NOT AFRAID OF CHANGE. IN FACT, YOU PROBABLY WELCOME IT AS AN EXCITING CHALLENGE TO BE OVERCOME. A LOWER SCORE SUGGESTS THAT YOU USUALLY RESIST CHANGE. IT'S TIME TO CHANGE THAT MIND-SET BEFORE YOU GET LEFT BEHIND.



REMEMBERING THE PAST

CANADIAN FORCES EUROPE (CFE) METEOROLOGICAL REUNION



Shown at the site of the newly-unveiled plaque are, *from left to right*: Colonel B. Krall, Base Commander, CFB Trenton; Dr. G. McBean, ADMA; Colonel A. J. Bauer (retired); and General J. Brace, Commander Air Transport Group.

Fond memories and shared experiences were rekindled in late April, as CFB Trenton hosted a reunion of AES meteorologists and military meteorological technicians who have served with Canadian NATO forces in Europe. Since CFE was established, almost forty years ago, AES has provided close to 100 professional meteorologists to support Canadian Forces bases, army garrisons, and ships deployed to NATO tasks right up until the recent closure of CFE. From 1952 until 1993, these "Met Officers" served in uniform (Short Service Commission or Class C Reserve).

To mark the occasion, ADM Gordon McBean unveiled a plaque given by AES to honour DND's cooperation during the tours of duty by meteorological personnel in Europe. The plaque was mounted on a large rock to be situated at the future site of the new Air Force Museum. General J. Brace, Commander of Air Transport Group, Trenton, reciprocated the honour with two presentations to AES: a certificate of appreciation recognizing AES' long association in CFE, and a citation acknowledging the meteorologists' contribution to the Class C Reserves in DND.

Circles in the sky

On May 10th, many Canadians had a rare opportunity to view an "annular" solar eclipse. The occasion also provided AEP scientists with a unique opportunity to gather new data about the ozone layer and how it absorbs UV rays. According to Norman Treloar, an atmospheric chemist in Winnipeg, "previous studies have shown that ozone changes during eclipses are a little mysterious." AEP scientists hoped to unveil some of that mystery.

As the eclipse approached, the sky darkened, the temperature fell, and the wind changed direction. In areas favoured with clear skies, UV levels plummeted as a sunny day quickly turned dark and tempestuous!

Many observing sites across the country were cloudy at eclipse time. That didn't stop Jay Anderson, a Winnipeg forecaster, who beat the weather by flying to Arizona to watch the eclipse under ideal sky conditions! Back in Canada, Dave Broadhurst, from the Atmospheric Issues Unit, monitored ground-level temperatures in Ontario Region during the eclipse. Billie Beattie and staff at Halifax made a video of the clear annular eclipse, using an image projected with a telescope.

"Preliminary results of the eclipse in Halifax," explained Norm Treloar, "show a large peak in ozone half an hour after the middle of the eclipse." He adds, "Environment Canada's instruments are probably more sensitive than those used in previous eclipse studies, and it is hoped that further data analysis will test the current ozone model, help explain how solar eclipses temporarily change the chemical and physical state of the atmosphere, and resolve a long-standing puzzle."



Jonathon Davies, Experimental Studies Division, Downsview, balances a pinhole camera to catch a glimpse.

Photo by Chris Kocot



ATMOSPHERIC CHEMIST FEATURED IN TEXTBOOK

COME SEPTEMBER, HIGH SCHOOL STUDENTS ACROSS ALBERTA WILL BE ABLE TO CATCH A GLIMPSE OF THE IMPORTANT WORK DONE BY ATMOSPHERIC CHEMISTS ONCE THEY TURN TO PAGE 17 OF THEIR GRADE 12 SCIENCE TEXTBOOK. FEATURED ON THE PAGE IS DR. KAREN McDONALD, AN ATMOSPHERIC CHEMIST WITH THE ENVIRONMENTAL SERVICES BRANCH IN PRAIRIE AND NORTHERN REGION. KAREN WAS APPROACHED BY GAGE PUBLISHERS BACK IN 1993. THE EDUCATIONAL PUBLISHERS WERE LOOKING FOR A RESEARCH SCIENTIST TO PROFILE AS A COMPLEMENT TO THEIR SECTION ON ATMOSPHERIC ISSUES AND KAREN'S BACKGROUND AND EXPERTISE FIT THE BILL. BELOW YOU'LL FIND AN EXCERPT FROM KAREN'S BIOGRAPHY FEATURED IN THE TEXT THAT WILL SOON FIND ITS WAY INTO THE CLASSROOMS AND MINDS OF THOUSANDS OF CANADIAN STUDENTS!

DR. KAREN McDONALD IS AN ATMOSPHERIC CHEMIST WITH THE ENVIRONMENTAL SERVICES DIRECTORATE OF ENVIRONMENT CANADA. FOR THE PAST TWO YEARS, KAREN HAS BEEN STUDYING THE MOVEMENT OF AIR MASSES TO DETERMINE HOW ALBERTA'S SULPHUR DIOXIDE EMISSIONS ARE AFFECTING AIR QUALITY IN CANADA AND THE UNITED STATES.

THE 1991 UNITED STATES - CANADA AIR QUALITY ACCORD HAS EMPHASIZED THE NEED FOR PREVENTATIVE WORK IN TERMS OF EMISSION CONTROLS AND MONITORING IF AIR QUALITY. KAREN'S RESEARCH IS PROVIDING

"SCIENCE IS FOR THE REAL PERSON
IN THE REAL WORLD"

VITAL INFORMATION TOWARD THIS CAUSE. "UNDER THE TERMS OF THE ACCORD, CANADA WILL HAVE A PERMANENT CAP ON SULPHUR DIOXIDE EMISSIONS OF 3.2 MILLION TONNES ANNUALLY. CANADA IS ALSO COMMITTED TO DEVELOPING THE MEANS OF PREVENTING SIGNIFICANT AIR QUALITY DETERIORATION AND PROTECTION OF VISIBILITY, ESPECIALLY IN PRISTINE AREAS SUCH AS THE MOUNTAIN PARKS."

AFTER RECEIVING HER DOCTORATE IN CHEMISTRY FROM THE UNIVERSITY OF ALBERTA,



KAREN WENT TO WORK IMMEDIATELY IN HER PRESENT JOB WITH ENVIRONMENT CANADA. "I HAD A STRONG PERSONAL INTEREST IN THIS KIND OF WORK, A SOLID BACKGROUND IN MATH, AND A FLEXIBLE APPROACH TOWARD DEALING WITH ALL THE SCIENCES, INCLUDING BIOLOGY, PHYSICS, AND CHEMISTRY." KAREN ENJOYS THE HOLISTIC APPROACH TO SCIENCE IN ENVIRONMENTAL STUDIES AND FINDS IT ALLOWS HER TO USE HER INTUITIVE THINKING. SHE PARTICULARLY ENJOYS THE FACT THAT SHE GETS TO WORK WITH INDUSTRY, STUDENTS, UNIVERSITY RESEARCHERS, AND OTHER AGENCIES. SHE LAUGHS AT THE PERCEPTION OF SCIENTISTS AS "LONELY PEOPLE WORKING AWAY IN A CORNER SOMEWHERE." "SCIENCE, "SHE SAYS, IS FOR THE REAL PERSON IN THE REAL WORLD."

NOW PLAYING

DID YOU KNOW THAT VIDEOS, FILMS AND SOUND RECORDINGS ARE AVAILABLE FROM THE ENVIRONMENT CANADA LIBRARY IN DOWNSVIEW? THE LIBRARY BOASTS A COLLECTION OF 275 SCIENCE FILMS, 70 SCIENCE VIDEOS, 15 MANAGEMENT VIDEOS AND 20 SOUND RECORDINGS - AND THE COLLECTION IS STILL GROWING! LOANS TO ENVIRONMENT CANADA STAFF FROM ACROSS THE COUNTRY ARE FREE OF CHARGE, WHILE A NOMINAL FEE EXISTS FOR NON DOE LIBRARIES AND MEMBERS OF THE PUBLIC. FOR MORE INFORMATION CONTACT RIAD RAHAL (416) 739-4225 OR MARIA LATYSZEWSKYJ (416) 739-4828.

"JOBS" AT YOUR FINGERTIPS

A NEW ELECTRONIC BULLETIN BOARD SYSTEM THAT KEEPS STAFF INFORMED OF AVAILABLE JOB AND ASSIGNMENT OPPORTUNITIES IS NOW AVAILABLE THROUGH DOTS AND WINDOWS. CALLED THE JOB OPPORTUNITY BULLETIN SYSTEM, OR JOBS, THE NEW SYSTEM IS ACCESSIBLE THROUGH DOTS FROM ALL-IN-ONE SIMPLY BY ENTERING THE BUSINESS APPLICATION (BA) OPTION AND SELECTING (OTS). THE WINDOWS VERSION IS ACCESSED BY DOUBLE CLICKING ON THE OTS ICON.

AS A COMPLEMENT TO TRADITIONAL SOURCES, DM MEL CAPPE ENCOURAGED EMPLOYEES TO USE THE SYSTEM IN SEEKING NEW OPPORTUNITIES AND MANAGERS TO USE IT AS A TOOL FOR ADVERTISING THEIR REQUIREMENTS.

TO OFFER YOUR COMMENTS AND SUGGESTIONS FOR JOBS, REFER TO THE LIST OF CONTACTS LISTED ON THE INTRODUCTORY JOBS SCREEN.



ACCOLADES

DAVID PHILLIPS WINS THE 1993 PATTERSON MEDAL:

David Phillips (left), AES Senior Climatologist and Canada's foremost climate expert, is presented with the 1993 Patterson Medal by our ADM, Dr. Gordon McBean (right) at a special luncheon held during the CMOS Annual Congress, June 1st.

The Patterson Medal, named in honour of Dr. John Patterson who was the Comptroller of the AES from 1929-1946, is awarded annually to individuals



in recognition of their exemplary service to meteorology in Canada.

"David," Dr. McBean remarked, "has distinguished himself in the fields of meteorology and climatology by promoting an awareness and understanding of weather and climate amongst Canadians. He has increased the Canadian public's interest and knowledge in these areas by breaking down the barriers to scientific information and by presenting it in a popular format."

CANADIAN FORCES SCHOOL OF METEOROLOGY... MEDALS PARADE



On May 6, both military and civilian meteorological technicians who served with the Canadian Forces at Baden-Soellingen and Lahr, West Germany, were honoured with Special Service Medals at a ceremony held at the Canadian Forces School of Meteorology.

While a medals presentation is not a unique event within the Canadian Forces, it is a special circumstance when civilians are so honoured. The civilian staff at CFS Met are all meteorologists seconded from Environment Canada to work with the Canadian Forces Weather Service. Many of them have spent time in Uniform as Class "C" Reserve Officers with the Canadian Forces

Proud recipients of the Special Service Medal included from left to right: Bill Hartman, Commandant CFS Met; Bryan Boughton, Chief Standards Officer CFS Met; Doris Quinn, Chief Instructor Officer CFS Met; and Brian Wong, Staff Officer Meteorology Operations at Air Command Headquarters.

Congratulations

PROMOTING BILINGUALISM

IS IMPORTANT, AND WE'RE DOING WELL. THE COMMISSIONER OF OFFICIAL LANGUAGES AWARDS HONOURS TO INDIVIDUALS AND BRANCHES OF THE FEDERAL GOVERNMENT WHO MAKE SPECIAL EFFORTS TO ENCOURAGE USE OF BOTH OFFICIAL LANGUAGES. THE ATMOSPHERIC ENVIRONMENT SERVICE (NOW AEP) HAS BEEN NOMINATED FOR THIS YEAR'S MERIT LIST IN APPRECIATION OF EMPLOYEES' PERSONAL DEDICATION AND CREATIVITY IN MAKING AEP BILINGUAL.

THIS WELL-DESERVED HONOUR IS IMPORTANT TO ALL EMPLOYEES AT AEP BECAUSE IT RECOGNIZES THEIR DEDICATION IN WORKING TO INCREASE USE OF BOTH OFFICIAL LANGUAGES.

CONGRATULATIONS TO ALL THE TEAM.
KEEP UP THE GOOD WORK!

