

CFCAS News

Canadian Foundation for Climate and Atmospheric Sciences (CFCAS)



Message from the Executive Director

On April 18, 2006 over 90 of Canada's leading climate scientists and oceanographers issued an open letter to Prime Minister Harper urging his government to develop a national strategy on climate change and to take the need for adaptation into account in this. The letter went on to state "several key research questions must be answered in order to understand how the climate will warm and what this means for our way of life and our economy. Solid impartial science is essential for development of sound policies." The full text of the letter, the signatories and the supportive information are available on the CFCAS website: www.cfcas.org. The letter received extensive coverage in newspapers and journals across the country as well as on broadcast media and elsewhere.

The Prime Minister has also received a letter from the Canadian Meteorological and Oceanographic Society, among other things pointing out that credible climate assessments already exist. CMOS also endorsed the letter from the 90 scientists.

During 2005-06 the Foundation invested \$17.3 million in new research. By May 2006 it had invested over 90% of its grants budget in top research initiatives. The budget will be fully committed by July 2006 and there will be no further competitions until new funds become available.

Dawn Conway

CFCAS funds new networks

During 2005 \$12.6 million was committed to the following research networks:

Canadian Network for the Detection of Atmospheric Change (CANDAC) – James Drummond, University of Toronto. The network uses the unique Polar Environment Atmospheric Research Laboratory (PEARL) on Ellesmere Island for studies of atmospheric dynamics, pollutant transport, climate factors and the ozone layer. The PEARL facility is the world's most northerly continuous atmospheric monitoring research facility and is only 1100 km from the North Pole.

Drought Research Initiative (DRI) - Ron Stewart, McGill University and John Pomeroy, University of Saskatchewan. The network is conducting a systematic study of the 1999-2004 drought in the Canadian Prairies - one of Canada's worst natural disasters – to improve predictive capacity and better understand the evolution and impact of droughts.

Storm Studies in the Arctic (STAR) - John Hanesiak, the University of Manitoba. This network is examining storms and related hazards in the Iqualuit area, combining field research using specially-equipped aircraft, with computer models and ground observations. The STAR network will help improve the safety of northern communities from weather hazards.

The **Western Canadian Cryospheric Network (WC2N)** - Brian Menounos, the University of Northern British Columbia. This network is studying western glaciers and improving understanding of the influence of the North Pacific climate system on glacier mass balance in the mountain ranges of British Columbia and Alberta. Shrinkage of these glaciers will affect water supply to the Prairie provinces.



The CFCAS Annual Report 2004-2005 is available from the Foundation directly or from its Web site : www.cfcas.org

CFCAS Project Awards

In January 2006, CFCAS announced the following project awards:

Extreme Weather

- Development and testing of a new meteorological instrument for storm research and prediction: the mesoscale radiometer. (F. Fabry, McGill University)
- Modelling and forecasting convective storms and rainfall. (G. Reuter, University of Alberta)

Air Quality

- A three-dimensional investigation of transboundary aerosol transport. (T. Duck, Dalhousie University) (awarded March 2006)
- Improved understanding of air quality in the Canadian Arctic using integrated satellite and surface observations. (D. Jones, University of Toronto)

Climate

- Black carbon particulates: rates and effects of atmospheric chemical processing. (J. Abbatt, University of Toronto)
- Improving the understanding of mixed-phase and ice clouds with emphasis on the Arctic Region and cubic ice in the Upper Troposphere. (A. Bertram, University of British Columbia)
- Impact of mountain pine beetle on the carbon balance of lodgepole pine stand in western Canada. (A. Black, University of British Columbia)
- Nested global inversion for North America carbon sinks and sources with ^{13}C isotope constraint. (J. Chen, University of Toronto)
- Response of the Labrador Sea environment to global climate changes: modelling, diagnose and predictability. (E. Demirov, Memorial University)
- Impact of climate change on mountain permafrost, northwest Canada. (A. Lewkowicz, University of Ottawa)
- The Canadian contribution to GFDex (The Greenland Flow Distortion Experiment). (K. Moore, University of Toronto)
- CALIPSO analysis and validation; application to model evaluation. (N. O'Neill, Université de Sherbrooke)
- The New Quebec Crater Lake project. (R. Pienitz, Université Laval)
- Energy and momentum consistency in subgridscale parameterization of climate models. (T. Shepherd, University of Toronto)
- Improving weather and climate prediction with better internal wave models. (B. Sutherland, University of Alberta)
- High resolution wind energy resource prediction. (P. Taylor, York University)
- Effects of convection on humidity and ozone (ECHO). (J. Whiteway, York University)
- Modelling the tropical tropopause layer. (P. Yau, McGill University)

Appointments

In January 2006 **Ann Henderson-Sellers** became Director of the World Climate Research Programme.

In January 2006 **Gordon McBean** was appointed Co-chair of the Scientific Steering Committee of START (Global Change System for Analysis Research and Training). He also now Chairs the Canadian National Committee for the Scientific Committee on Oceanic Research (SCOR).

Peter Nicholson is the first President of the Council of Canadian Academies (formerly known as the Canadian Academies of Science). He was previously the Deputy Chief of Staff for Policy in the Prime Minister's Office and was one of the charter members of the National Advisory Board on Science and Technology.

In February 2006 **Michel Béland**, Director General of Atmospheric Science and Technology (Science and Technology Branch, Environment Canada) was appointed President of the World Meteorological Organization's Commission for Atmospheric Sciences.

Events & Program News

NSERC and CFCAS will host a joint session on the afternoon of Wednesday May 31, 2006 at the **CMOS Congress** in Toronto. The session will highlight the accomplishments of networks supported by the two agencies. See www.cmos2006.ca

The 'Earth System Science Partnership' (WCRP, IGBP, IHDP and Diversitas) has organized an **Environmental Change Open Science Conference** in Beijing, China from November 9-12, 2006. The conference is entitled "Global Environmental Change: Regional Challenges". Dr. Gordon McBean is the Canadian co-chair for the ESSP conference. For more information visit: www.essp.org/ESSP2006



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