

Atmospheric physics



Global climate change

## SOUTHERLY PROSPECTS: ANTARCTIC SCIENCE MEETS NEW CHALLENGES

Sustainable harvesting



Oceanographic research



Biodiversity



# Australian ANTARCTIC

MAGAZINE

Autumn 2001



AAD PHOTO

Dear Readers

As Minister for the Environment and Heritage, I have the privilege of having the Australian Antarctic Program within my portfolio responsibilities.

Two visits to Antarctica have instilled in me lasting impressions of the magnitude and grandeur of the Antarctic wilderness. And admiration of the people who choose to work there. I have seen at first hand the difficulties of living and working in Antarctica, and appreciate the great opportunities provided by Antarctic research to answer fundamental questions about global environmental processes.

Protection of the Antarctic environment is a priority for the Howard Government, and in this regard I follow with great interest Australia's efforts on the ice and in the Southern Ocean. For example, an instrumental piece of work, in which Australia's Antarctic scientists can take great pride, is the contribution to understanding and managing the resources of the Southern Ocean.

The international impact of our recent efforts in the Convention on the Conservation of Antarctic Marine Living Resources have directly met the Government's goals of influence within the Antarctic Treaty system and protection of the Antarctic environment. Similar results are coming from our atmospheric and oceanographic programs, and our environmental management activities are among the best.

The quality of our effort in Antarctica is by any measure outstanding. We still have a lot to do, and I am excited by the range of scientific opportunities. It is important that our effort be maintained, and that we make sure that the rest of the world's Antarctic community sees the results of our work.

The Australian Antarctic Magazine will be an ideal forum for reporting our accomplishments in Antarctica, on the subantarctic islands and in the Southern Ocean. I am delighted that it has been launched.

Federal Environment Minister Robert Hill

## From the Director

Welcome to this first issue of *Australian Antarctic Magazine*. Our aim is to reach out to the wide community of people who share an excitement about Antarctica. Its successful predecessor *ANARE News* has enjoyed an over-long sabbatical. It is my hope that you will enjoy this magazine and, through its pages, become more aware of the diversity of the Australian Antarctic program and Australia's commitment to Antarctica. *Australian Antarctic Magazine* will report on the current work of the Australian Antarctic program, look forward to the future, and reflect on the achievements of the past.

During the past two years we have been implementing the Government's response to the Antarctic Science Advisory Committee's Report *Australia's Antarctic Program Beyond 2000—a Framework for the Future*. The Government set us four ambitious goals: to maintain the Antarctic Treaty system and enhance Australia's influence in it; to protect the Antarctic environment; to understand the role of Antarctica in the global climate system; and to undertake scientific work of practical, economic and national significance. Each issue of *Australian Antarctic Magazine* will report on what we are doing to meet these goals.

A key challenge for the Antarctic program is to ensure consistently high quality results are achieved with maximum efficiency in all the areas of our work. In doing this we are staying alert to opportunities to do better. This year we are looking very carefully at a number of matters including air transport to, and within, Antarctica; the potential for joint use of facilities and logistics; the development of a more flexible program; multi-ship operation; and enhanced automation of scientific equipment. 2001 is an exciting time for the Antarctic program.

Plans for air transportation to Antarctica and enhanced air support for science on the ice are currently being developed, and will be subjected to close scrutiny for their likely environmental impact before any recommendations are made to Government.

We are developing a ten-year strategic plan for our operations, questioning every aspect of our present activities and asking if by doing things differently we can save resources for deployment elsewhere.

Discussions are being held with other nations to see if savings can be made through cooperative use of logistics.

We are now in the first year of

a three-year charter period in which we will operate two vessels to support the Antarctic program. The *RSV Aurora Australis* is spending a greater proportion of her time as a scientific platform.

The Science Branch of the Australian Antarctic Division has embarked upon a rolling program of instrument automation, with many experiments now running automatically.

There have been other changes too. In 1999 we reorganised the Biology Program to allow the Antarctic Marine Living Resources Program to develop its national and international visibility. Australia maintains a high profile in the Convention on the Conservation of Antarctic Marine Living Resources and has been very successful in having its scientific findings on krill and fish stock assessments translated into international agreements. As I write, the atmospheric sciences effort is being reformed into two programs—the Meteorological Science and Atmospheric and Space Physics programs. This change will better focus their activities on the global climate system. The deployment at the start of this season of the LIDAR instrument at Davis marks a significant development in Australia's middle atmosphere climatology research, and the science community is looking forward eagerly to the research results.

An environmental management system is being put in place which will cover all of our activities in the Antarctic and at the program's Kingston headquarters.

Within the Antarctic Treaty we have a number of initiatives being developed in partnership with the Department of Foreign Affairs and Trade and other agencies, all directed at delivering on our goals of maintaining and enhancing the Antarctic Treaty system and protecting the Antarctic environment.

Finally I must pay tribute to the high professionalism of the staff of the Australian Antarctic Division and other participants in the Australian Antarctic program. Their teamwork and commitment shines through in everything they do and I am hopeful that over time our readers will better come to know our Antarctic program and all the people proudly associated with it.

I hope you enjoy *Australian Antarctic Magazine*. Please let us know what you think of it.

# Australian ANTARCTIC

Autumn 2001

MAGAZINE



**The Australian Antarctic Division (AAD)**, an agency of

Environment Australia, seeks to advance Australia's Antarctic interests in pursuit of its vision of having 'Antarctica valued, protected and understood'. It does this by managing Australian government activity in Antarctica, providing transport and logistic support, maintaining four permanent Australian research stations, and conducting scientific research programs both on land and in the Southern Ocean.

**Australia's four Antarctic goals**

- To maintain the Antarctic Treaty System and enhance Australia's influence in it
- To protect the Antarctic environment
- To understand the role of Antarctica in the global climate system
- To undertake scientific work of practical, economic and national significance

**Australian Antarctic Magazine** seeks to inform the Australian and international Antarctic community about the activities of the Australian Antarctic program. Opinions expressed in Australian Antarctic Magazine do not necessarily represent the position of the Australian Government.

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Cover—Australia's Antarctic Program starts the new millenium seeking to understand the role of Antarctica in the global climate system and to protect Antarctica and all of its special qualities.

Photographs—Front, clockwise left to right: Andrew Klekociuk, Steve Nicol, Wayne Papps, Doug Thost, Gavin Johnston, Wayne Papps, Diana Calder. Back, clockwise left to right: Wayne Papps, Pauline deVos, Kim Pitt, Stephen Brooks Clive McMahon and Anna McEldwney, Steve Nicol, Australian Antarctic Data Centre, Wayne Papps. Iceberg in background: Diana Calder.