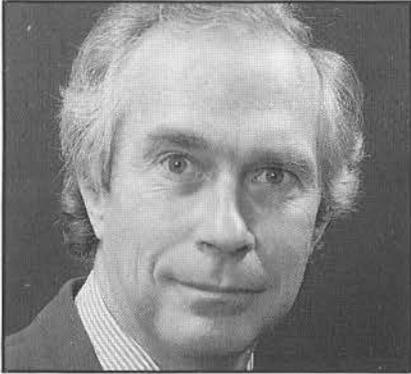


## New Chairman



Mr BJ Huntley, Chief Director of the National Botanical Institute, has been appointed chairman of the South African Committee for Antarctic Research (SACAR). He succeeds prof T Erasmus. Born in Durban, Natal, in 1944, he studied at the Universities of Natal and Pretoria, obtaining his MSc degree from the latter university in 1968. Mr Huntley's research experience includes studies in tropical forest, sub-Antarctic tundra, southern African Savanna and Namib desert ecosystems.

## Important issues addressed

**A number of extremely important issues were addressed by the Scientific Committee (SC) and the Commission for the Conservation of Antarctic Marine Living Resources (C-CAMLR), during the Ninth Annual Meeting which was held between 22 October and 2 November 1990 in Hobart, Tasmania.**

Several items of Commission matters were of major importance, of which a few are mentioned below:

- Conservation Measure 18/IX is the first C-CAMLR Measure to be promulgated which does not deal specifically with fin-fish. It provides for the protection of sites where colonies of sea-birds or seals are being monitored as part of the C-CAMLR Ecosystem Monitoring Programme (CEMP).
- The Commission reached an important conclusion in principle that the analysis and evaluation of submitted CEMP data and the develop-

ment of recommendations based thereon for management purposes do not require, and should not await, the determination of the precise quantitative nature of predator/prey/environmental relationships.

- The C-CAMLR System of Inspection has now been in force for two seasons and reports of its infield implementation indicate that despite some initial practical difficulties, the System is proving effective.
- The development of approaches to conservation under C-CAMLR Convention continued and South Africa's participation in this regard was strongly acknowledged.
- With regard to likely problems associated with "New and Developing Fisheries", the Commission reached an important agreement in principle that the development of unexploited or underexploited fisheries should be directly linked to elaboration of scientific advice and management procedures for that fishery.
- The Commission agreed to provide financial support for the forthcoming SCAR Workshop on Southern Elephant Seals to be held in Santa Cruz during May 1991. Given current national research interest, strong South African representation at this Workshop has been arranged.

### CONCLUSIONS

C-CAMLR continues to make significant progress in fulfilling its ambitious objective of managing Antarctic marine living resources from an ecological perspective. An ever-growing database and improved awareness of the need to develop common management objectives, protocols and mechanisms for providing advice have served to focus the Commission's attention in recent years on the effective implementation of sensible management action. In these terms, SC-CAMLR-IX was extremely productive and real progress was made on further defining the activities of WG Krill, the principle of setting precautionary limits on krill catches and on making management decisions in the face of uncertainty. South Africa continues to play an active role in all aspects of the work done by the Commission and the Scientific Committee.

## SANAE fleet upgraded

**An extensive development programme to improve the reliability of machines in Antarctica has already reached its third stage, with encouraging results.**

Several local innovations and technical breakthroughs have led to a marked reduction in operating costs. Other important contributing factors include driver-training and strict operator discipline.

### THE FUTURE SANAE FLEET

In order to meet future demands, it was decided by the Antarctic Logistic Management to upgrade the entire SANAE fleet and support equipment. The vision was to have a modern productive fleet, but to be cost-effective proper fleet management was essential.

This was achieved by appointing a fleet-manager who could specify suitable products and who could manage all aspects of Antarctic transport. Under his supervision the entire fleet and the support equipment were standardised in order to improve efficiency and reduce operating costs.

The number of vehicles for key tasks was expanded to provide for break-

downs and maintenance. In the past, operations were often forced to a standstill due to breakdowns.

### DESIGNS AND MODIFICATIONS

Vehicle management in Antarctica requires three-dimensional planning and an in-depth understanding of the hostile environment. Subzero temperatures and high-density drift-snow necessitate product adaptations.

To improve productivity, a new 12 tonne cargo sled was designed. The sled has independent suspension and can be used for the transport of general cargo, containers and fuel.

Special light-weight containers for SANAE and the Islands were designed to fit the parameters of the helicopters and the SA Agulhas. This should speed up cargo-handling considerably.

Fast transport to move manpower around will be provided by a new high-speed tractor and a 20 seated closed sled with air suspension. This should eliminate long waiting periods when the helicopters are grounded. Light transport around the base will be improved by using the successfully modified skidoos and sledges.

## Antarctic Biology

**South African-based researchers gave 12 oral and poster presentations, covering both terrestrial and oceanographic research, at the Fifth Symposium on Antarctic Biology, held in Hobart, Tasmania.**

This symposium, which was held under the auspices of the Scientific Committee on Antarctic Research (SCAR), during August and September 1988, followed the Fourth Symposium, which was held at Wilderness, South Africa in 1983.

Partially because of the somewhat restricted theme, the compilation that arose from the symposium eventually published only three papers on South African research under the title *Antarctic ecosystems. Ecological change and conservation*. This was edited by KR Kerry and G Hempel and published by Springer-Verlag in 1990.

The authors of the three South African publications were Steve Hunter (on the impact of cats on avian predator-prey interactions at Marion Island), Jan Crafford and Steve Chown (on an introduced moth at Marion Island) and Jan Crafford (on house-mice at Marion Island). Conspicuously missing, therefore, from the South African published contributions was something on oceanographic research, or work conducted on the Antarctic continent. The latter gap, at least, should be remedied at the next Symposium on Antarctic Biology, because South Africa is commencing terrestrial biological research on the Antarctic continent during the 1991/92 summer.

## New research station planned

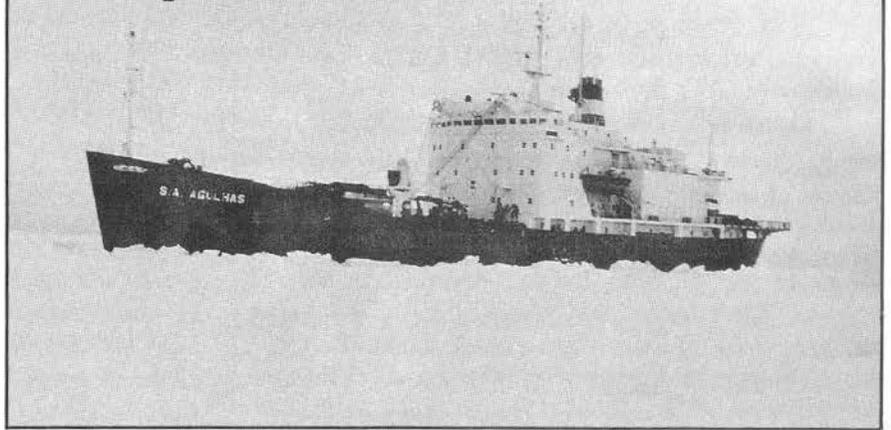
**South Africa is planning a new Antarctic research station to replace the current SANAE base, which has reached the end of its lifetime. Construction will take place during the 1991/92 and 1992/93 summer seasons.**

Feasibility studies pointed the best available site to be an inland nunatak (rock outcrop) named Vesleskarvet, 071°33'S 002°10'W, about 200 km south from the existing base. An environmental impact study will be carried out before construction starts.

The main design objectives are to create a user-friendly, comfortable and environmentally safe base in support of internationally acclaimed scientific research. Latest technology in material and equipment will be utilised to construct the three double-storeyed units, each with 42,6m X 15m plan dimensions, to safely accommodate 80 expeditioners during the summer season.

A team of 17 will man the station during the harsh Antarctic winter and, combined with high quality facilities, will keep South Africa in the forefront of Antarctic research.

## Ship to be refurbished



**South Africa's polar supply ship SA Agulhas is to undergo a major upgrading and refurbishment during the autumn and winter of 1992.**

The project has a dual objective, namely to enhance the vessel's capability as a polar supply ship and to improve the oceanographic research facilities.

All on-board scientific facilities are to be vastly improved, particularly in the oceanographic and biological fields. A new hydrological complex is to be constructed on the main deck adjoining the extended lounge area. The complex will consist of a wet, a chemical and a dry laboratory and will be served by two new slip-ring winches and a telescopic gantry extending outboard by five metres. Vertical profiling to 6 000 metres will be via a CTD/Rosette, while small plankton nets will be deployed from the second winch to depths of up to 2 000 metres. Both

winches and the winchman are to be housed in an enclosed space above the wet laboratory, affording a clear view of the deck and surface of the sea.

Biological and geological sampling over the stern will also undergo major changes. The poop-deck is to be extended aft by two metres and a large hydraulic A frame will be fitted to launch and retrieve gear. To facilitate landing gear well forward of the stern itself, a hydraulic-powered hinged hatch is to be created at the aft end of the helicopter deck. The dredging/coring-winch is to be relocated further aft and a new towing-winch is to be built — the latter holding 4 000 metres of conductor cable. The deck will be enclosed on both sides to offer better shelter. The two existing laboratories will be gutted and three additional spaces will be created. The new complex will consist of a general purpose/C14, a wet, a semi-wet, a geological and an acoustics laboratory.

The Meteorological activities are to be consolidated in upgraded spaces on 02 Deck. These will include enhanced balloon room and gas storage facilities, a new laboratory and the resiting of certain deck equipment to simplify balloon-launching.

Two new structures for bird and mammal observation are to be constructed on the upper bridge deck, on the centre-line. The former will be an enclosed cubicle while the latter will be open. Both will have direct communications with the bridge.

The above briefly describes an ambitious project that will considerably enhance South Africa's contribution to a number of important international oceanographic research programmes.