## THE PROPOSED LANDING STRIP ON MARION ISLAND

## BACKGROUND

The Prince Edward Islands, comprising Marion Island (290 km²) and Prince Edward Island ( $44 \mathrm{~km}^{2}$ ) lie some 19 km apart at approximately $47^{\circ} \mathrm{S}, 38^{\circ} \mathrm{E}$ in the south Indian Ocean. They are part of the Republic of South Africa, sovereignty being declared through annexation in January 1948. A station, initially for meteorological observations, has been maintained on Marion Island since annexation. From the mid-1960s the station has developed gradually into what is today a well equipped scientific station capable of supporting up to 30 persons over-winter, and nearly double that number for shorter periods of time such as durifg the twiee annual relief periods lasting up to six weeks-each Scientific research on and around the islands is organized and supported logistically under the auspices of the South African National Antarctic Research Programme (SANARP).

## THE PROPOSAL

The Department of Environment Affairs (DEA), which is responsible for the administration of the Prince Edward Island territory and whose Antarctic Division is responsible for the logistical support of the South African National Antarctic Research Progamme (SANARP), proposed the construction of a landing strip on Marion Island. The reasons that have been given for this by the DEA are:

1. To provide rapid attention to or evacuation of injured or sick personnel.
2. To provide surveillance and rescue aircraft with an alternative landing place.
3. To enable better control of territorial waters and the fishing zone around the islands.
4. To enable provisioning of the station with emergency supplies.
and the motivations are the following;

- during the four years up to and including 1985 it was necessary to conduct four evacuations of sick/injured persons by ship, and one parachute drop of emergency medical supplies,
- the Cape Sea Route is an important and busy one. While most passages around the Cape take place within about 100 nautical miles of the coast some, especially yachts not calling at Cape Town, prefer a more southerly passage,
- volcanic activity resumed on Marion Island in 1980, this being the first known activity in living memory. Significant though not major outpourings of lava occurred in the central upper and western coastal regions of Marion Island. The base station is on the coast on the eastern side and was not in any way threatened by these outpourings. However, since the islands lie on an active fracture zone in the ocean floor, hence their existance in the first place, it is reasonable to expect further activity sooner or later,
- an alternative landing place for search and rescue aircraft has been a long felt need.

A preliminary feasibility study by a firm of consulting civil engineers has been undertaken. A possible site for a runway ( $1400-1800 \mathrm{~m}$ long, 30 m wide) to cater for aircraft up to the size of a Hercules C130 transport plane, was identified on Marion Island. It lies a few kilometres south of the station atop a stony ridge south of and above the 'Albatross Lakes' area.

## ENVIRONMENTAL IMPACT ASSESSMENT

The DEA has commissioned an independant environmental impact assessment, to be conducted prior to a decision being taken on whether to proceed or not with the proposal (see attached press statement by the Minister for Environment and Water Affairs, 29 December 1986).

A 5-member Panel has been formed to conduct this. Its members are Dr G Heymann (convenor of the Panel and Chairman of SA's SCAR National Committee), Prof T Erasmus (zoologist), Mr B J Huntley (ecologist), Prof G de F Retief (coastal and ocean engineer) and Dr A C Liebenberg (consulting marine and civil engineer). The Antarctic Programme office of the Foundation for Research Development (FRD) of the Council for Scientific and Industrial Research (CSIR) will provide the support services for the Panel, the persons responsible for this being Dr P R Condy and Mr O A van der Westhuysen.

The procedure being followed by the Panel is as follows:

1. Submissions to the Panel on the proposal have been invited from some 30 sources (individuals and groups) who are or have been engaged in activities (scientific or logistical) at the islands over the past $10-15$ years. These include biologists (botanists, entomologists, limnologists, mammalogists, marine biologists, ornithologists), engineers, geologists, volcanologists, geophysicists, logisticians and meteorologists.
2. The Panel and various other technical experts (aviation experts, design and construction engineers, etc) will visit the island for $7-10$ days in February 1987 for on site inspections.
3. The Panel will hold discussions with members of current and past expeditions to the island, and with other persons/parties as the need arises.
4. In the light of its findings through 1 to 3 above and its examination of the reasons given for the proposal, the Panel will submit its report to DEA in March 1987.

The Panel's report to DEA will be subjected to independant review ('audit') by an invited expert from abroad ( $\mathrm{Dr} \mathrm{W} N$ Bonner, UK), who will visit South Africa to do this so that he can consult with the Panel and others as he deems appropriate. His report will be submitted independantly to DEA. This process is expected to take place in March/April 1987.

Thereafter, the DEA is expected to make a decision on whether or not to proceed with the proposal, and if so how and under what environmental controls.

The Panel's report, as well as that of the independant reviewer, will not be confidential though common courtesy requires that they be submitted to DEA before public release by the DEA.

## G HEYMANN

Panel Chairman
28 January 1987

P30. programme

