

In the 1960's, members of the Australian National Antarctic Research Expeditions (ANARE) were the first humans to visit and explore the Prince Charles Mountains (PCM) chain in the interior of the continent. Research in the field of geology, geophysics, glaciology, meteorology and biology has been conducted in this region by many ANARE expeditions since then, and a total of six permanent summer field bases have been established and operated to support these programs.

The Beaver Lake region of the PCMs was first sighted in 1956 during reconnaissance flights by the ANARE from Mawson Station on the coast of Mac.Robertson Land, and the first ground party reached the area by dog sled soon after. During September 1957 an ANARE field camp was established on the smooth ice surface at the southern end of the lake area. This site was used extensively as a landing area by ANARE "beaver" aircraft, and was for these that the lake was named. In subsequent seasons the lake was used as a landing field by a variety of ANARE aircraft, and when the Soviet Antarctic Expeditions (SAE) commenced investigations in the region in the early 1970s, they too used the lake for aircraft operations. In 1982 the SAE established Soyuz Base on Jetty Peninsula to support its summer research activities.

To the east of the Beaver Lake region lies the Lambert Glacier, the largest glacier in the world, and its seaward extremity, the Amery Ice Shelf. While Beaver Lake is some 250 km from the ocean, observations carried out by the ANARE in 1958 showed that it is tidal, and is therefore connected directly with the ocean underneath the Amery Ice Shelf.

The region to the west of Beaver Lake consisting of the rugged Manning, McLeod and Loewe Massifs is ice free and is the largest such region in the PCMs, and one of the largest in the whole of Antarctica. Within this is Radok Lake, which although small, is remarkable in having a depth of around 350 m, making it the deepest known lake in the continent. At the southern end of Radok Lake is the floating ice tongue of the Battye Glacier, the only such floating ice tongue in a lake in the world. Water from Radok Lake drains into Beaver Lake via the spectacular, steep-walled, Pagadroma Gorge. This gorge is unique in Antarctica having been produced by a once-vigorous, but now vanished, river.

The Beaver Lake region is one of the most spectacular, isolated regions in Antarctica. It offers scientists much of interest, and research conducted there is contributing significantly to human knowledge and our understanding of Antarctica and the world as a whole.

SCALE 1 : 100 000
1 cm to 1 kilometre
km 1 .5 0 1 2 3 4 5 km

PROJECTION: Transverse Mercator
GRID: Universal Transverse Mercator, grid zone 42
HORIZONTAL DATUM: World Geodetic System 1984
MAGNETIC VARIATION (in 1990): 69.6° west
IMAGE: Multispectral Space Imagery SPOT 1 and LANDSAT 5
1988 and 1989

NOMENCLATURE: Names have been approved by the Antarctic Names Committee of Australia

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Processed by Australian Centre for Remote Sensing

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Further information write to: ALIG, PO Box 2, Belconnen ACT 2616 or telephone: (06) 252 7099

Department of the Arts, Sport, the Environment, Tourism and Territories ANTARCTIC DIVISION

Beaver Lake

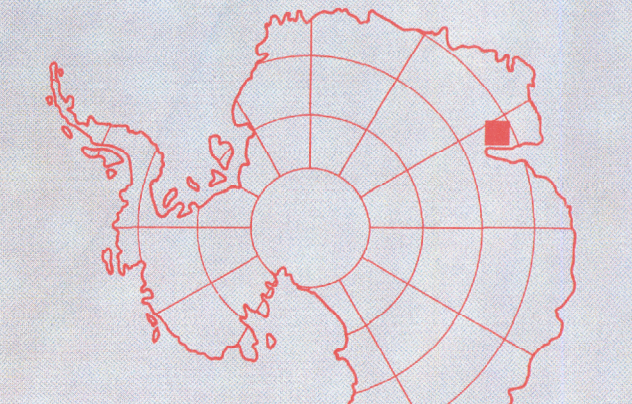
MAC. ROBERTSON LAND

A · N · T · A · R · C · T · I · C · A

AERIAL PHOTOGRAPHY FLIGHT LINES

SATELLITE IMAGE MAP

1 : 100 000 SCALE



Photography: CASC Photography with a RC9 Camera and ANTC Photography with a ZEISS UMK Camera
Flying Height: CASC at 6100m and ANTC at 4000m
Produced September 2003