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## GEOMORPHOLOGICAL SKETCH MAP OF THE MOUNT DICKASON AREA (VICTORIA LAND, ANTARCTICA) MAPPED BY AERIAL PHOTOGRAPHS

**ABSTRACT:** BIASINI A., OSSO P. & SALVATORE M.C., *Geomorphological sketch map of the Mount Dickason area (Victoria Land, Antarctica) mapped by aerial photographs*. (IT ISSN 0391-9838, 1997).

This short note illustrates the results of some investigations carried out using aerial photographs and satellite images and aimed at the compilation of thematic maps at different scales of Victoria Land (Antarctica). In particular, a geomorphological map at a scale of 1:50,000 of a 900 km<sup>2</sup> area including Mount Dickason has been drawn. The map, in this article at a scale of 1:80,000 and simplified, was produced in the framework of a cartographic project of the National Program for Antarctic Research, aimed at the compilation of a 1:250,000 geomorphological map series of Victoria Land.

**KEY WORDS:** Geomorphological Mapping, Photogeology, Mount Dickason, Victoria Land, Antarctica.

**RIASSUNTO:** BIASINI A., OSSO P. & SALVATORE M.C., *Schizzo geomorfologico dell'area del Mount Dickason (Terra Vittoria, Antartide) da fotografie aeree*. (IT ISSN 0391-9838, 1997).

In questa nota breve sono illustrati i risultati di alcune indagini svolte attraverso l'impiego di fotografie aeree e subordinatamente immagini da satellite, finalizzate alla realizzazione di cartografia tematica della Terra Vittoria del Nord (Antartide). In particolare si tratta di una carta geomorfologica in scala 1:50.000 di un'area estesa per circa 900 km<sup>2</sup> in prossimità della base italiana di Baia Terra Nova e comprendente l'area del Mount Dickason. L'elaborato realizzato, qui mostrato in forma semplificata alla scala circa 1:80.000, rientra nell'ambito di un progetto di cartografia del Programma Nazionale di Ricerche in Antartide finalizzato alla realizzazione di una collana di carte geomorfologiche della Terra Vittoria in scala 1:250.000.

**TERMINI CHIAVE:** Cartografia Geomorfologica, Fotogeologia, Mount Dickason, Terra Vittoria, Antartide.

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### FOREWORD

A useful starting point for the elaboration and production of cartographic maps in the Terra Nova Bay area (North Victoria Land) is the analysis of relief and glaciers. In this regard the research group of Pnra, which works at the Dipartimento di Scienze della Terra at the University of Rome «La Sapienza» has undertaken, for a good number of years, studies and research in the production of geomorphological cartography. This work, both in synthesis as well as in detail, has been dedicated to mapping an area of approximately 30,000 km<sup>2</sup> of Victoria Land and the creation of a data base run on Gis.

In this article the preliminary results of analysis, through aerial photographic data, are presented and have given rise to a geomorphological map at a 1:50,000 scale (Biasini & alii, 1996). The map in question is part of a cartography project undertaken by Pnra to create a series of geomorphological maps of North Victoria Land at a scale of 1:250,000 (Biasini & alii 1992, 1994; Baroni & alii 1995; Salvatore, 1995).

The investigated area (fig. 1) is situated in the region of the Bay of Terra Nova and is the centre south sector of the Deep Freeze Range, a large mountainous area between the valley of the glaciers Priestley and Campbell. This area extends approximately 900 km<sup>2</sup> between latitudes 74° 16' and 74° 38' S (a little to the North of Mount Dickason as far as Browning Pass to the South) and is bordered by the outlet glaciers Campbell to the East and Priestley to the West.

Throughout the area there is a morphology with numerous cirques, ridges and horns; the smaller glaciers drain into the Priestley and Campbell glaciers.

In the territory of the Bay of Terra Nova glacier deposits of different ages have been distinguished (Denton &