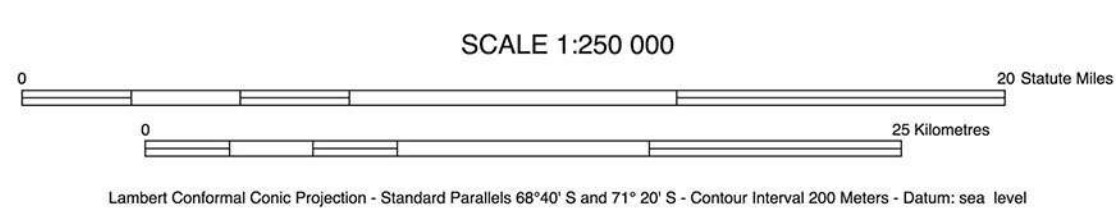


Ministero dell'Istruzione, dell'Università e della Ricerca
 Programma Nazionale di Ricerche in Antartide

ANTARCTIC GEOMAGNETIC 1:250 000 MAP SERIES
**TOTAL FIELD MAGNETIC ANOMALY MAP OF THE LILLIE GLACIER AREA
 (NORTHERN VICTORIA LAND)**

GITARA VI
 GERMAN-ITALIAN AEROMAGNETIC RESEARCH IN ANTARCTICA
 1999-2000
E. Bozzo & D. Damaske COORD.
 GITARA GROUP:
 Bozzo E.1, Damaske D.2, Ferraccioli F.1,3, Moeller D.2
 COMPILED BY:
 Damaske D. & Ferraccioli F.



SUPPORT
 Bundesanstalt für Geowissenschaften und Rohstoffe
 Progetto Nazionale di Ricerche in Antartide
 Ente per le Nuove tecnologie, l'Energia e l'Ambiente

DATA ACQUISITION
 Bundesanstalt für Geowissenschaften und Rohstoffe
 Dipartimento per lo Studio del Territorio e delle Sue Risorse,
 Sez. Geologica, Univ. Genova (Dipteris)

TOPOGRAPHIC BASE
 USGS Antarctica Reconnaissance Series 1:250 000
 Projection:
 Lambert Conformal Conic
 2 Standard Parallels
 $\phi_1 = 68^\circ 40' S$
 $\phi_2 = 71^\circ 20' S$

MAGNETIC DATA (2000.01)
 Declination:
 109.8° E (mean)
 101.7° E to 118.1° E
 84.2° S (mean)
 83.8° S to 84.8° S
 Intensity:
 65233 nT (mean)

AEROMAGNETIC EQUIPMENT
 Magnetometer (Aircraft):
 resolution : 0.001 nT
 sampling rate : 0.1 sec
 Magnetometer (Base Station):
 resolution : 0.1 nT
 sampling rate : 60 sec

NAVIGATION SYSTEM
 Trimble Differential Global Positioning System

ACQUISITION SYSTEM
 PDAS 1000 (PICODAS)

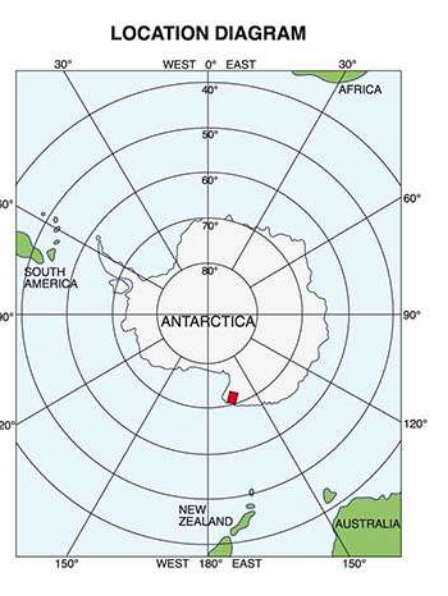
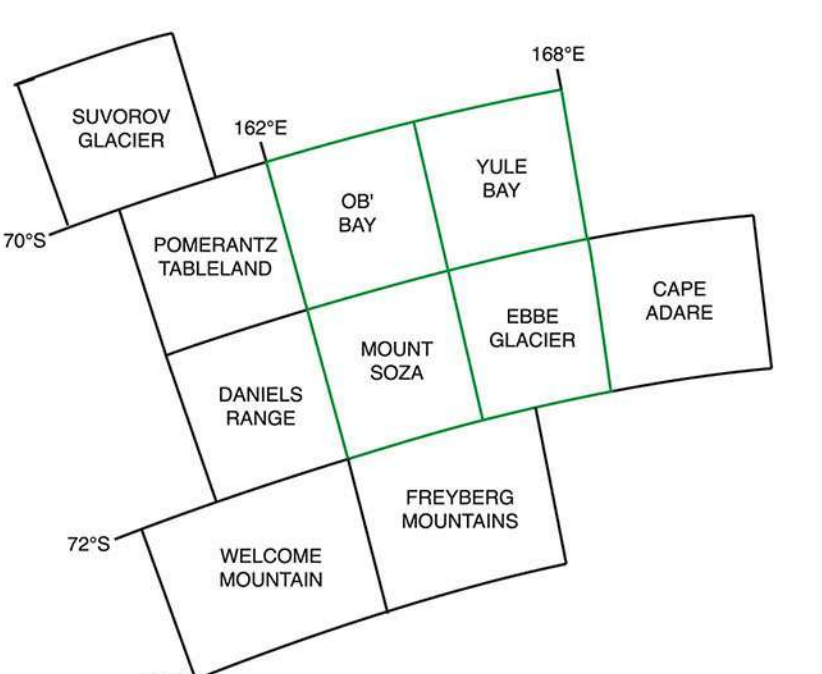
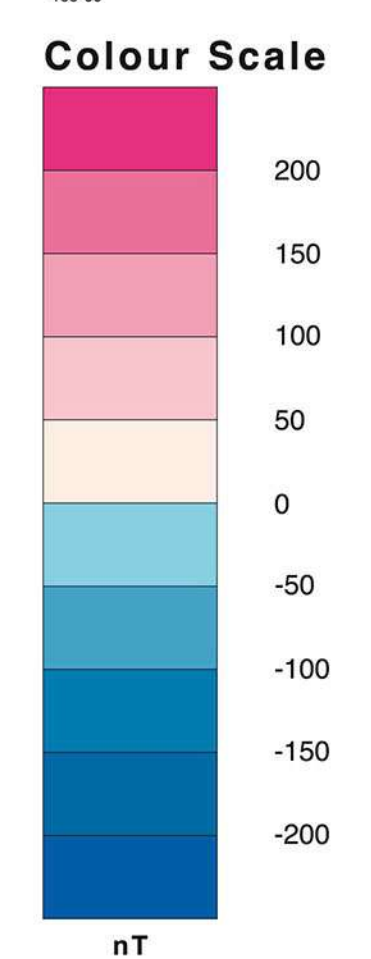
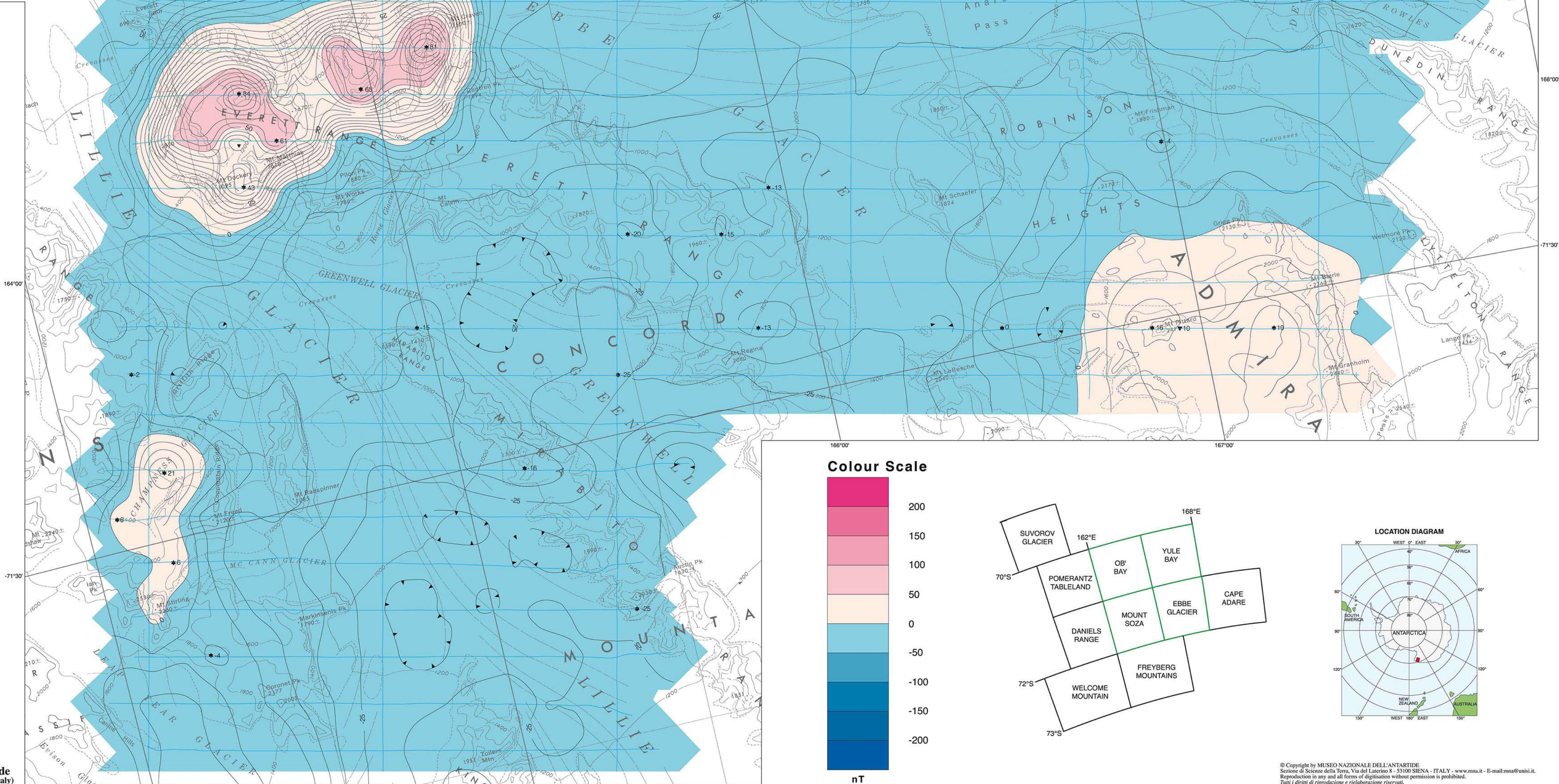
AIRCRAFT
 Helicopter Aerospaziale AS30B2 Squirrel

ALTITUDE
 2730 m

ALTITUDE CONTROL
 DGPS
 Barometric Altimeter
 Radar Altimeter

PROCESSING
 Differential correction of GPS data
 Removal of diurnal variation by long period filtered base station data (low pass 60 min)
 Removal of (IGRF 2000, I12 harmonic) extrapolated to mean overall survey date (15 Jan. 2000)
 Statistical Levelling (Tie lines and Profile lines)
 Microlevelling (frequency domain, 2D directional filtering)

MAGNETIC TOTAL INTENSITY
 Contour interval: 5, 25, 100 nT
 Relative maximum: \blacktriangledown
 Relative minimum: \blacktriangle



1. Dipartimento per lo Studio del Territorio e delle sue Risorse, Sez. Geologica, Università di Genova, Italy (DIPTERIS-GE)
 2. Bundesanstalt für Geowissenschaften und Rohstoffe, Hannover, Germany (BGR)
 3. New Zealand Antarctic Survey, Cambridge, UK
 Computer Graphic and GIS by Centre of Geodesy of the Siena University
 Drawn by D. Grassini - San Gimignano, 2004