Sheet 1 of 2

Manuscript of

The BEARDMORE - AXEL HEIBERG REGION

Surveyed by New Zealand Geological & Survey Expedition 1961-62 (Southern party)

LOCALITY MAP

Origin & density of ground control

- Southern party - High density
- Southern party - Low density
- Southern party - Low density - Detail plotting will be completed later
- N.Z. Alpine Club Expedition 1959-60 - High density - Expedition survey replotted
- No ground control - bridged by trimetrogon photography
- Insufficient ground control or trimetrogon coverage at present for detailed mapping

Survey methods

Ground Control by triangulation - now in terms for horizontal and vertical co-ordinates with the U.S.G.S. "Topo South" Tellurometer traverse. This has resulted in a uniform shift of all points of 17"S., 30"W. (540 m) on the 180° meridian from the mean astronomical positions. All heights are true altitudes above sea level. Detail Plotting carried out from Trimetrogon aerial photos.

Computations and map by P.M. Otway, assisted in detail plotting (Shackleton - Isaiah Bowman Gl.) by W.W. Herbert.

P.M. Otway (Registered surveyor)
21/3/63

Composition of Party:

W.W. Herbert - leader,
P.M. Otway - surveyor,
V.R. McGregor - geologist,
K.P. Pain - field assistant,
and 18 dogs. (Dismal q.v.)

NOTE: Names in inverted commas have been proposed but not yet approved

SCALE

A 1: 250,000 at Lat. 71°S
1: 256,509 at Lat 85°S

B 1: 500,000 at ϕ 71°S
1: 513,018 ϕ 85°S

10 0 10 Statute Miles at 85°S.

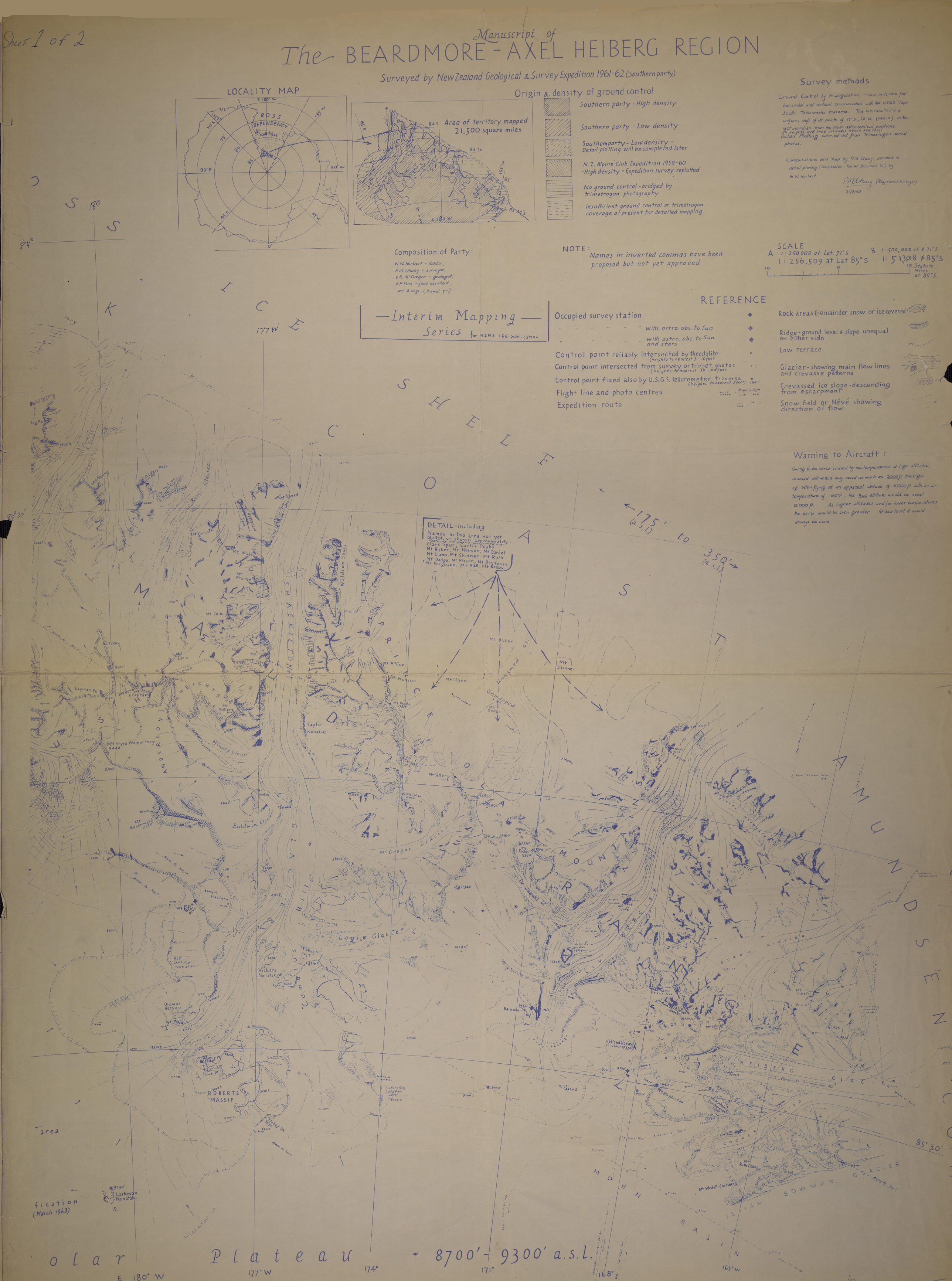
—Interim Mapping— Series for NZMS 166 publication

REFERENCE

- Occupied survey station
- " " " " " " with astro. obs. to Sun
- " " " " " " with astro. obs. to Sun and stars
- Control point reliably intersected by theodolite (heights to nearest 5-10 feet)
- Control point intersected from survey or trimet. photos (heights to nearest 50-100 feet)
- Control point fixed also by U.S.G.S. tellurometer traverse (heights to nearest 5 feet)
- Flight line and photo centres
- Expedition route
- Rock areas (remainder snow or ice covered
- Ridge - ground level & slope unequal on either side
- Low terrace
- Glacier - showing main flow lines and crevasse patterns
- Crevassed ice slope - descending from escarpment
- Snow field or Névé showing direction of flow

Warning to Aircraft:

Owing to the error caused by low temperatures at high altitudes, aneroid altimeters may read as much as 2000 ft. too high. eg. When flying at an apparent altitude of 15,000 ft with an air temperature of -60°F., the true altitude would be about 13,000 ft. At higher altitudes and for lower temperatures the error would be even greater. At sea level it would always be zero.



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U. S. GEOLOGICAL SURVEY
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