

OPERATION CARTERET 1986

PROJECT REPORT

4 FIELD SURVEY SQUADRON



ROYAL AUSTRALIAN SURVEY CORPS

84

PROJECT REPORTOPERATION CARTERET 86

- References:
- A. DGOP-A Tasking Directive 4/85 dated 31 May 85
 - B. HQ FF Comd OPORD 20/85 dated 16 Jan 86
 - C. HQ 4 MD Mounting Instruction 1/86 dated 19 Feb 86
 - D. 4 Fd Svy Sqn OPORD 1/86 dated 19 Feb 86

General

1. Operation CARTERET 86 was a control survey operation conducted in the Port Lincoln area by 4 Fd Svy Sqn during the period 10-16 Mar 86.

Operations

2. The following tasks were undertaken:
 - a. Ground mark preselected points on Rocky and Greenly Islands,
 - b. Establish horizontal and vertical control by Doppler observations,
 - c. Control preselected azimuth points, and
 - d. Refurbish panelling and acquire identification photography.
3. The area of operations is shown at Annex A.

Execution

4. The operation required 3 field parties to be inserted and extracted by road and air to Mt Gawler (Master Station), Rocky Island (Remote) and Greenly Island (Remote), with a main base located at the Port Lincoln Caravan Park, North Shields.
5. All tasks were accomplished within the period allocated to the operation. A control survey report appears at Annex B.

Operational Support

6. Aircraft. A Bell Jetranger helicopter was chartered from the Lloyd Aviation Group to assist in the operation. An extra 1.5 hours were used over and above the original charter of 14 hours. The extra hours were due to the surface and weather conditions on Rocky and Greenly Islands. Both islands had uneven landing sights which, coupled with strong winds, made it unsafe to shutdown the aircraft during loading and unloading.
7. Vehicles. These were supplied from 4 Fd Svy Sqn resources and provided no problems. The following vehicles were used:
 - a. 3 x Truck Cargo 0.75 tonne GS Landrover
 - b. 3 x Trailer Cargo 0.5 tonne.

8. Personnel. The following personnel were attached to the operation:

- a. Lloyd Aviation Group. Mr J.A. CLISSOLD, pilot, for the period 11-15 Mar 86.
- b. Australian Defence Force Academy. Mr J. SNEDDON and Mr T. LUTZE, for the period 10-12 Mar 86.

Administration and Logistics

9. Manning. The following 4 Fd Svy Sqn personnel were involved in the operation:

182616 LT D.J. Stephenson - Det IC
 19952 WO2 R.H. Mills (ARES)
 219056 SGT W.J. Chilcott
 222877 SGT N.W. Jones
 320106 CPL K.W. Whitty
 4400413 SPR N.J. Houston
 323295 SPR P.A. McCurdy
 232083 SPR S.F. Wainwright.

10. Accommodation. A base camp was established at the Port Lincoln Caravan Park, North Shields. This was manned by the Det IC and pilot. Field parties were accommodated in 11' x 11' tents while on station.

11. POL.

- a. MSP. MSP was obtained on SQ78 from Port Augusta and Port Lincoln. The total amount purchased was 925 l.
- b. AVTUR. Drummed AVTUR was supplied by Lloyd Aviation Group under the terms of the charter.
- c. Oil. Oil for vehicles and generators was supplied from unit resources.

12. Stores and Equipment. All stores were provided from unit resources except for the following, which were loaned from S.A. Lands Dept:

- a. 3 x Magnavox 1502 Sets and accessories, and
- b. 2 x HP3805 Sets and accessories.

13. Pay and Allowances. Members were paid full TA while at the main base. The field parties received Survey Party Ration Allowance and the incidental element of TA while on station. The total finance expenditure was:

- a. T & S: \$2076.10
- b. Survey Party Ration Allowance: \$165.59
- c. F & C: Nil.

14. Medical. No medical problems occurred.

15. Rations. Survey Party Ration Allowance was provided for the field parties while on station. Most supplies were purchased in Adelaide prior to departure. Fresh supplies were purchased in Port Lincoln prior to insertion of parties.

16. Morale. An excellent level of morale was evident throughout the operation.

17. Discipline. No disciplinary action was required during the operation.

18. Communications. AN/PRC F1 radios were used for twice daily SITREPS. Two way communication was possible between all sets on most occasions.

Conclusion

19. Operation CARTERET 86 was successful in that all tasks were completed on schedule.

15 May 86

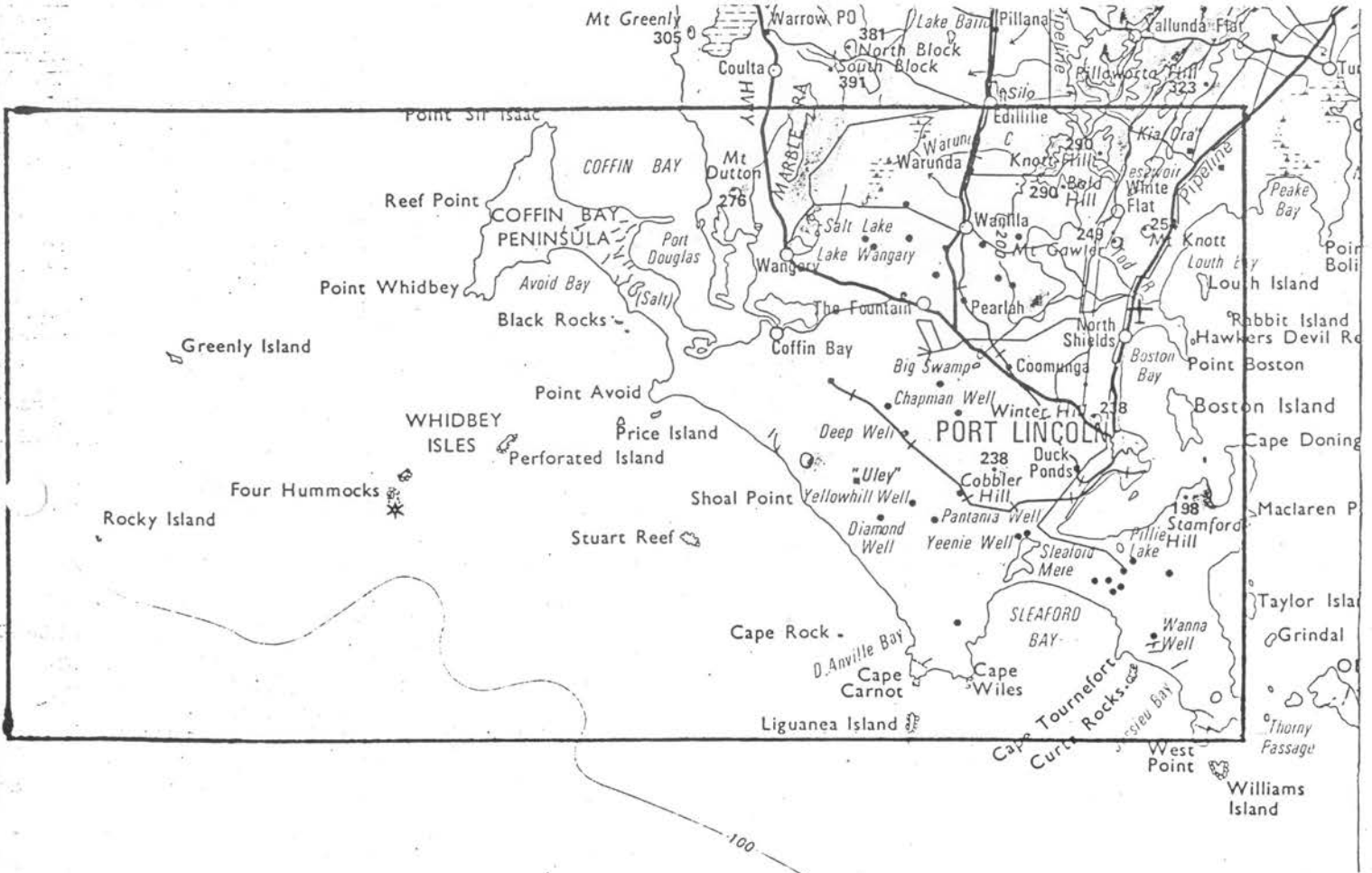


(D. TAYLOR)
Major
Officer Commanding

- Annexes: A. Area of Operations
B. Control Survey Report

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AREA OF OPERATIONS



CONTROL SURVEY REPORT

- References:
- A. Standard Specifications and Recommended Practices for Horizontal and Vertical Control Surveys, Edition 3
 - B. SOP for RASVY Doppler Satellite Equipments dated 10 Dec 84
 - C. DSVY SVY004842 of 050105Z Mar 86

Task

1. The following tasks were undertaken:
 - a. Ground mark preselected points on Rocky and Greenly Islands,
 - b. Establish horizontal and vertical control by Doppler observations,
 - c. Control preselected azimuth points, and
 - d. Refurbish panels and acquire identification photography.

Execution

2. Organisation. The force consisted of 2 x two man parties inserted to Rocky and Greenly Islands, by air, and 1 x three man party inserted by vehicle to Mt Gawler.
3. Deployment. The Mt Gawler party was inserted by vehicle on the morning of 11 Mar 86. The helicopter was used to insert the field parties to the islands. All parties were established and operating by sunset on 11 Mar 86. Tracking continued until the morning of 14 Mar 86 when extraction commenced. All parties had returned to main base by 1700 hrs on 14 Mar 86.
4. Aircraft Useage. An airstrip at Point Avoid, near Coffin Bay, was used as a base for the insertion to the islands. This required the vehicles to traverse a rough gravel road to get to the airstrip. For the extraction, an airstrip to the NE of Coffin Bay was found which was more accessible. The following is a breakdown of flying hours:
 - a. 11 Mar 86.
 - (1) Adelaide - Port Lincoln, 1.5 hrs;
 - (2) Port Lincoln - Greenly - Port Lincoln, 2.7 hrs; and
 - (3) Port Lincoln - Rocky - Port Lincoln, 3.0 hrs.
 - b. 14 Mar 86.
 - (1) Port Lincoln - Greenly - Port Lincoln, 3.6 hrs; and

- (2) Port Lincoln - Rocky - Port Lincoln, 3.1 hrs.
- c. 15 Mar 86. Port Lincoln - Adelaide, 1.6 hrs.
5. Passes Observed. The field parties observed the five satellites available. The number of passes observed at each station was as follows:
 - a. Greenly Island (K863) 64 passes (30 acceptable 3D)
 - b. Rocky Island (K864) 47 passes (30 acceptable 3D)
 - c. Mt Gawler 52 passes (36 acceptable 3D).
6. Geographical Co-ordinates. The approximate positions of the new control points, as a result of the translocation computation, are:
 - a. Greenly Island (K863).
 - (1) Latitude: 34° 38' 31."130 S
 - (2) Longitude: 134° 47' 21."130 E
 - (3) Height: 138.83 m.
 - b. Rocky Island (K864).
 - (1) Latitude: 34° 48' 50."073 S
 - (2) Longitude: 134° 43' 21."118 E
 - (3) Height: 85.36 m.
7. Pass Balance. Pairing of satellites to determine pass balance was in accordance with Reference C.
8. Azimuth. Horizontal angles were observed, to 3rd order specifications, between the azimuth mark on each island and a heliograph positioned on the other island. Distances were measured between the control points and the azimuth points using the HP 3805.
9. Sea Level Connection. Because of the inaccessible nature of the waterline on each island, a short baseline method was used to gain a sea level connection.
10. Station Marking. In both cases, station marking consisted of a RASvy brass plaque, stamped with the station number, set in concrete. Three recovery marks, each consisting of a brass rod set in concrete, as well as a galvanised iron pipe painted white, capped and stamped with the station number, were sited to aid future recovery.
11. Panelling.
 - a. Rocky Island. Station K864 was marked with two panels, one to the NNW (2m wide and 4m long) and one to the SSE (2m wide and 6m long). The azimuth point was marked by a single panel 2m wide and 6m long. The panel was placed to the NW of the azimuth point.

- b. Greenly Island. A cross with arms 2m wide and 6m long was used to mark the station. The azimuth point was marked by a Y shape with arms 2m wide and 6m long.

12. Identification Photography. Oblique 35mm identification photography was acquired of Rocky Island.