

# OPERATION NOTARIAL 5

## PROJECT REPORT



**YOU'RE AT CHANDLER** railway Siding, **THE NORTHERN END** of the

### OODNADATTA TRACK

SOUTH <small>via 1996 Oodnadatta Track</small>		NORTH <small>via 1996 Oodnadatta Track</small>	
FLINDERS RANGES <small>953</small>	BIRDSVILLE 1183	DARWIN 1927	
LAKE EYRE <small>THE LOWEST POINT IN AUSTRALIA 577</small>	INNAMINKA 1200	TENNANT CK 908	
COWARD SPRINGS <small>NOTEDAN SPRING AREA 535</small>	SYDNEY 2630	ALICE SPRINGS 410	MAP & INFO.
OODNADATTA 240	CANBERRA 2580	KULGERA 135	
WILLIAM CK. 450	PERTH 3460	AYERS ROCK 440	
MARREE 662	ADELAIDE 1370	THE OUTBACK	
LYNDHURST 744	MELBOURNE 2220		
LEIGH CK./COPLEY 780	BRISBANE 2862		
ARKAROOLA 907	DALHOUSIE	SOUTH	
GRANITE DOWNS H.S. 15	MACUMBA 280	MARLA 51	
LAMBINGA H.S. 77	NILPINNA 383	MT. WILLOUGHBY 178	
TOOMORDEN 164	ANNA CK. 445	COPPER HILLS 195	
ALLANDALE 258	STUARTS CK. 590	HOOKEYS HOLE 247	
PEAKE 345	ALGERUECKINA 300	COOPER PEDY 340	
		PIMBA 420	
		PORT AUGUSTA 960	

4 FIELD SURVEY SQUADRON

ROYAL AUSTRALIAN SURVEY CORPS

AMENDMENT SHEET

PROJECT REPORT

OPERATION NOTARIAL 5

AUGUST 1984

AMENDMENT LIST		AMENDMENT MADE BY	DATE
NO	DATE		

Front Cover: The front cover was produced from a photograph of a sign at the Northern end of the Oodnadatta Track.

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4 FIELD SURVEY SQUADRONPROJECT REPORTOPERATION NOTARIAL 5AUGUST 1984

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B. Listing of Contacts

## PROJECT REPORT

### OPERATION NOTARIAL STAGE 5

- References:
- A. HQ 4 MD Mounting Instr No 1/84 dated 18 Apr 84
  - B. 4 Fd Svy Sqn OPOD 1/84 dated 26 Apr 84

#### General

1. Operation Notarial 5 was mounted by 4 Fd Svy Sqn during the period 1 May - 28 Jun 84. The aim of the operation was to field annotate 64 x 1:50000 enhanced orthophoto maps within the Series 1501 map areas of SG53-9 ALBERGA (part), SG53-10 ABMINGA, SG53-5 KULGERA (part) and SG53-6 FINKE. Appendix 1 to Annex A shows the area of operation.

#### Operational Results

2. All maps listed for field annotation were completed. A detailed report is contained at Annex A.

#### Operational Support

3. Aircraft Support. A Pilatus Porter fixed wing aircraft from 173 Gen Spt Sqn was allocated in support of the operation. Details are:

- a. Pilatus Porter. The aircraft was used solely for field annotation and of the 90 hours allotted, 89.9 were used.
- b. Serviceability. No serviceability problems were encountered during the operation.
- c. Personnel. The co-operation between RASvy and AAvn personnel was excellent throughout the operation. The interest shown and assistance given by the pilot contributed significantly to the success of the operation.

#### Administration

4. Manning. The force was composed of the following personnel:

6708956	SSGT B.J. Lutwyche	4 Fd Svy Sqn	1 May - 28 Jun 84
226223	CPL G.J. Honan	4 Fd Svy Sqn	1 May - 28 Jun 84
63273	CPL A.D. Lucas	4 Fd Svy Sqn	1 May - 28 Jun 84
228115	SPR S.C. Rundle	4 Fd Svy Sqn	1 May - 28 Jun 84
182138	SPR D.A. Lambton-Young	4 Fd Svy Sqn	1 May - 28 Jun 84
1200785	CAPT P.A. Muir	173 Gen Spt Sqn	6-22 Jun 84
1204907	CFN E. White	173 Gen Spt Sqn	6-22 Jun 84

5. Main Bases. Main bases were situated at the following locations:

- a. Marla, SA, during the periods 2-9 May 84 and 6-13 Jun 84.

/b. Todmorden

- b. Todmorden Station, SA, during the period 9-14 May 84.
  - c. Eringa Station (abandoned), SA, during the period 14-20 May 84.
  - d. Kulgera Police Station, NT, during the periods 20 May - 6 Jun 84 and 23-26 Jun 84.
  - e. Erldunda, NT, during the period 13-23 Jun 84.
6. Forward Bases. Independent forward bases were situated at the following locations:
- a. Horseshoe Bend Station, NT, during the period 6-9 Jun 84.
  - b. New Crown Station, NT, during the period 9-16 Jun 84.
7. Rations. The force was rationed for a total of 95 mandays with a major part of ration stock being purchased prior to arrival in the AO and the balance purchased as required in the AO.
8. Stores. Stores were supplied by 4 Fd Svy Sqn.
9. Health. Two mandays were lost due to sickness; one due to influenza and the second as a result of a vehicle accident when a member was rested in order to avoid possible delayed concussion.
10. Morale. The level of morale was high throughout the operation.
11. Discipline. No situation arose where disciplinary action was necessary.
12. Pay and Allowances
- a. Pay. Members received pay in advance for the full period of the operation.
  - b. Allowances. The following allowances were paid:
    - (1) Travelling Allowance for insertion and extraction,
    - (2) Incidentals for the duration of the operation,
    - (3) Meal element of Travelling Allowance for a total of 180 mandays,
    - (4) Survey Party Ration Allowance for a total of 95 mandays, and
    - (5) District Allowance whilst in the AO.

13. Expenditure. The following expenditure occurred:

- a. T&S                   \$8419.00
- b. Rations               \$680.56
- c. F&C                   \$1076.00
- d. POL                   \$14164.18 (does not include delivery/recovery).

All expenditure has been acquitted and was within funding allocated.

14. Public Relations. Contact was made with many members of the public and all station owners/managers in the AO. Particular assistance was received from personnel listed at Annex B.

Logistics

15. Supply. The following items were resupplied:

- a. 2 x Truck Lightweight 3/4 ton GS Series 3 Landrover.
- b. 1 x Landrover oil cooler pipe.
- c. 1 x Landrover electric fuel pump.
- d. 1 x Landrover tyre.

Both vehicles were recovered and replaced within six working days and other resupplied items received within four working days of request.

16. Fuel Positioning

a. Drummed. Drummed fuel was supplied by 41 Sup Bn and positioned by DAS as follows:

- (1) Marla airstrip                                   AVTUR 4000 litres
- (2) Todmorden Station airstrip                   AVTUR 1600 litres
- (3) Teyon Station airstrip                       AVTUR 4000 litres
- (4) New Crown airstrip                           AVTUR 2400 litres
- (5) Erldunda Station airstrip                   AVTUR 4000 litres
- (6) Todmorden Homestead                       MSS     800 litres
- (7) New Crown Homestead                       MSS     800 litres.

b. Bulk. 41 Sup Bn supplied SP27 forms for the purchase of bulk MT for insertion and extraction of the force and whilst in the AO at the following locations:

/(1) Marla

- (1) Marla,
- (2) Oodnadatta,
- (3) Kulgera, and
- (4) Erldunda.

17. Fuel Usage. The following fuel was used during the operation:

- a. AVTUR 13400 litres (drum),
- b. MSS 1600 litres (drum),
- c. MSS 4935 litres (bulk), and
- d. MSP 3449 litres (bulk where MSS not available).

The remaining fuel and drums are to be recovered by contract. The value of the fuel and drums represents an amount of \$3794.66 which has been included in the amount quoted in para 13d.

18. Vehicles. The following vehicles were used on the operation:

- a. 3 x Truck Lightweight 3/4 ton GS Series 3 Landrover.
- b. 3 x Trailer Cargo 1/2 ton.

19. Vehicle Serviceability. Generally the vehicles performed well over the period of the operation, however, the following repairs were beyond the capabilities of the detachment's resources and were carried out using Form TGM139:

- a. Repair bent LH steering arm,
- b. Repair fuel pump and accelerator linkage,
- c. Supply and fit new speedometer cable,
- d. Repair 4WD selector rod,
- e. Fit front RH wheel hub oil seal,
- f. Supply and fit new headlight,
- g. Fit gearbox seal, and
- h. Repair accelerator linkage and door striker plate.

Two vehicles damaged in accidents during the operation were recovered/replaced by Adelaide Wksp Coy. The passenger in one of the accidents suffered minor injuries as mentioned in para 9.

Communications

20. Rear Link. Rear link communications were provided by telephone using a Telecom Credit Card. Reports were made weekly to 2IC 4 Fd Svy Sqn.

21. Field Parties. Communications between ground parties within the AO were maintained by AN/PRC F1 radio. Daily scheduled reporting was successful at all times.

Operation Difficulties


22. Entry to Aboriginal Land. Difficulty was encountered in obtaining approval to enter upon Pitjantjatjara Land. An approach was made by HQ 4 MD in Mar 84, however, the Pitjantjatjara Land Council advised that a meeting between Land Council representatives and Det 4 Fd Svy Sqn would be necessary before permission would be considered. On arrival in the AO a meeting at Indulkana Community Centre was arranged for 4 May 84 between representatives of the Pitjantjatjara Land Council and IC Det 4 Fd Svy Sqn. Once the detachment's area of interest and objectives were explained and clarified, the Land Council was content to allow vehicular travel through most areas. The only restricted area was satisfactorily annotated by air.

Conclusions and Recommendations

23. The operation was carried out successfully within the resources allocated.

24. It is strongly recommended that all future map production include plotting of cultural detail as many cultural features are not readily discernible on the projected imagery.

24 Aug 84

  
(E.R. SCHULZE)  
MAJ  
OC

Annex: A. Field Annotation Report

B. Listing of Contacts

FIELD ANNOTATION REPORT

- References:
- A. RASvy Symbolisation All Series 1:50000 map specifications
  - B. SOP for Cartographic Enhancement of Random Dot OPM dated 25 Feb 82

Task

1. To field annotate 64 x 1:50000 enhanced orthophoto maps in South Australia and the Northern Territory. The maps were contained within the following 1:250000 map sheets:
  - a. SG53-5 KULGERA
  - b. SG53-6 FINKE
  - c. SG53-9 ALBERGA
  - d. SG53-10 ABMINGA.
2. Appendix 1 to Annex A shows the area of operation.
3. Standards were in accordance with References A and B.

Execution

4. Organization. The force consisted of 2 x two man parties and Det IC and carried out the ground annotation. Det IC carried out the air annotation concurrent with the final phase of the ground annotation.
5. Deployment. At all times the parties operated from their respective main base.

Field Annotation Material

6. Four units were involved in the preparation of field annotation material:
  - a. 1 Fd Svy Sqn plotted 32 x 1:50000 map sheets in the ALBERGA/ABMINGA Block. Selected cultural detail had been plotted in biro.
  - b. 5 Fd Svy Sqn plotted 32 x 1:50000 map sheets in the KULGERA/FINKE Block. No cultural detail had been plotted.
  - c. Army Survey Regiment supplied a contone negative and two composite bromide copies of the OPM imagery and 10,000 metre grid for each 1:50000 area.

d. 4 Fd Svy Sqn produced the following:

- (1) A cultural compilation sheet for each 1:50000 area in the ALBERGA/ABMINGA Block by ink tracing the cultural plot sheets.
- (2) A cultural compilation sheet for each 1:50000 area in the KULGERA/FINKE Block by ink tracing all discernible cultural detail from the contone negatives.
- (3) A nomenclature/field check query overlay for each 1:50000 area.
- (4) 2 x composite bromide copies of the OPM imagery, cultural compilation and nomenclature/field check queries for each 1:50000 area.
- (5) 2 x composite ozafilm copies of the cultural and nomenclature/field check queries for each 1:50000 area.

7. Photography. Nil supplementary photography was flown during the operation due to the unavailability of an RC10 camera. Details of available photography are as follows:

- a. The date of aerotrig photography for the area is as follows:
  - (1) ALBERGA/ABMINGA Block 1973
  - (2) KULGERA/FINKE Block 1971.
- b. RAAF photography flown in 1981 was used for OPM projection in the KULGERA/FINKE Block.
- c. SA Lands Dept and RAAF photography flown in 1981 was used for OPM projection in the ALBERGA/ABMINGA Block.
- d. NT Lands Dept photography flown in 1982 and 1983 within KULGERA/FINKE Block. Bromide prints of the photography were used during production of field annotation material and also used in the AO during field annotation.
- e. NT Lands Dept photography flown in early 1984. Bromide prints have been obtained since completion of field annotation.

8. Comments on Use of Photography. It was noted that plotting of the KULGERA/FINKE Block was completed in 1982 from 1971 photography, and plotting of the ALBERGA/ABMINGA Block was also completed in 1982 from 1973 photography whilst the projection for both blocks was produced from 1981 aerial photography.

/Much time

Much time and effort could have been saved during annotation had the plotting been produced from the 1981 aerial photography.

9. Other Agency Data. As a result of technical liaison, the following data was obtained from other agencies:

- a. Pastoral Plans - received from SA and NT Lands Depts.
- b. Proposed Stuart Highway Plan - received from Highways Dept.
- c. Communication Towers on the Central Australia Railway - received from Australian National Railways.

#### Field Annotation Methods

10. During the initial 5 weeks prior to arrival of the aircraft, 75% of the ground annotation was completed. After the arrival of the aircraft, the remaining 25% of ground annotation was conducted by 2 x two man parties operating from forward bases whilst Det IC conducted a confirmatory air check of all maps completed by ground.

11. Ground and air annotation was done directly onto the bromide copies. These annotations were later transferred to the master ozafilm copy and a road classification colour guide prepared on another ozafilm copy. To assist in cartography, diagrams were drawn and 35mm photographs taken from the air of homestead complexes, railway stations, bores etc.

12. A field check report was prepared for each 1:50000 map area detailing problems on specific aspects encountered in the field. These reports are included in the relevant PD folders.

13. The ground and air check responsibilities included the annotation of cultural detail, road classification and obtaining and verifying names.

#### Comments and Recommendations

14. Minimum supplementary aerial photography requirements for the future are coverage of the two lane unsealed road from Finke township to New Crown Station constructed in late 1983 and the Impadna Railway Siding complex.

15. The following recommendations are made from conclusions reached during production of field annotation material and at completion of field annotation:

- a. Plotting of all cultural detail from the latest available photography would result in a substantial saving of time and effort during field annotation and minimum acceptable accuracies maintained.
- b. Contone negatives should continue to be used in preference to halftones as the increased clarity significantly aids the positioning of new detail.

#### Appendix: 1. Area of Operations



LISTING OF CONTACTS

1. Snr Constable Steve Liebelt, OIC Kulgera Police Station, NT.
2. Mr Hughie Cullinar, Chairman Pitjantjatjara Land Council, SA.
3. Mr David Harman, manager Granite Downs Station, SA.
4. Mr Rex Fuller, owner De Rose Hill Station, SA.
5. Mr Bob Hannigan, owner Lambina Station, SA.
6. Mr Gordon Lillecrapp, owner Todmorden Station, SA.
7. Mr Grant McSporan, manager Hamilton Station, SA.
8. Mr Gary Birchmore, manager Macumba Station, SA.
9. Mr Francis Smith, owner New Crown Station, NT.
10. Mr David Smith, owner Tieyon Station, SA.
11. Mr Bruce Lowe, owner Mt Cavenagh Station, NT.
12. Mr Shane Blakely, acting manager Umbeara Station, NT.
13. Mr Sandy Hancock, owner Lilla Creek Station, NT.
14. Mr Sid Stanes, owner Eriidunda Station, NT.
15. Mr Peter Stanes, owner Palmer Valley Station, NT.
16. Mr Leo Murphy, owner Idracowra Station, NT.
17. Mr Peter Morphett, owner Horseshoe Bend Station, NT.
18. Mr Tom Cleary, professional rabbit shooter, Kulgera, NT.