

OPERATION

NOTARIAL

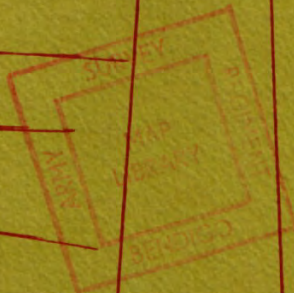
1982

STAGE

TWO



VIDERE PARARE EST



PROJECT R

52

AMENDMENT SHEET

OP NOTARIAL STAGE II

NOVEMBER 1982

4 FD SVY SQN

Amdt No	Amdt Entered	Amdt No	Amdt Entered

ROYAL AUSTRALIAN SURVEY CORPS

4 FD SVY SQN

OPERATION NOTARIAL STAGE II

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PROJECT REPORT

OPERATION NOTARIAL STAGE II

- References:
- A. Dept of Defence (Army Office) A474-1-48 dated 15 Sep 81
 - B. HQ 4 MD R788-2S-45 dated 15 Oct 82
 - C. 4 Fd Svy Sqn R788-1-15 dated 29 Oct 82

General

1. Operation Notarial II was mounted by 4 Fd Svy Sqn during the period 1 Nov - 6 Dec 82. The aim of the operation was to field annotate 28 x 1:50 000 and 2 x 1:100 000 enhanced orthophoto maps in the 1:250,000 scale map areas of SH53-2 MURLOOCOPPIE, SG 53-13 EVERARD and SG 53-14 WINTINNA.

2. Operational Results

All maps listed for field annotation were checked. A detailed report is contained in Annex A.

Operational Support

3. Aircraft Support. A fixed wing aircraft was allocated in support of the operation.

- a. Pilatus Porter. A14-A703, 173 Gen Spt Sqn. The aircraft was used for field annotation and air photography in the AO and to photograph a new road on SH53-5 Tallaringa from Stage I. Of the allotted 40 hours, 38.5 hours were used.
- b. Serviceability. Some minor serviceability problems were encountered during the operation. The fault causing most concern was the fuel flow meter and the fuel gauges periodically going u/s. When reported to Oakey, the OC restricted sorties to 2.5 hrs as a safety measure.
- c. Personnel. The co-operation between the RA Svy and AA Avn personnel was excellent throughout the operation. The interest shown and assistance given by the pilot contributed significantly to the success of the operation, particularly after CPL Camp became unfit for duty and returned to Adelaide.

Administration

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

WO2 A. Adsett, det I/C	1 Nov - 6 Dec 82	4 Fd Svy Sqn
CPL L. Camp	1 - 22 Nov 82	4 Fd Svy Sqn
SGT R. Garritty	25 - 27 Nov 82	4 Fd Svy Sqn
CPL B. Slape	29 Nov - 6 Dec 82	4 Fd Svy Sqn
LT S. Chaney	14 - 30 Nov 82	173 Gen Spt Sqn
CFN J. Garvin	14 - 30 Nov 82	173 Gen Spt Sqn

5. Visits. The following personnel visited the AO:
COL N.R.J. Hillier DSVY-A 13-15 Nov 82
MAJ M.A.L. Van Den Tol OC 4 Fd Svy Sqn 13-17 Nov 82
CAPT J. Prain RE EX LONG LOOK 13-17 Nov 82
SGT R. Rees 19-21 Nov 82 Movt camera to AO
CPL B. Slape 19-21 Nov 82 Movt camera to AO
SGT R. Parslow 29-30 Nov 82 Movt camera from AO
6. Main Base. The main base was situated at the Opal Inn Motel, Coober Pedy.
7. Rations. Meals for the personnel involved in the operation were provided by the Opal Inn Motel and the Coober Pedy Roadhouse, when motel dining room was closed.
8. Stores. A stores list for the operation is shown at Annex B.
9. Health. CPL Camp was returned from the operation due to sickness. All other personnel had no health problems during the operation.
10. Morale. The level of morale was high throughout the operation.
11. Discipline. No situation arose where disciplinary action was required.
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 to each member:
 - (1) Travelling Allowance of \$48.00 per day, and
 - (2) District Allowance of \$28.73 per fortnight.
13. Public Relations. Working in the Coober Pedy area contact was made with many members of the public. Assistance was received from the following:
 - a. Officer-in-Charge Coober Pedy Police Station
 - b. Mr Ian Rankin, owner Mabel Ck Station
 - c. Mr Gerry Adamson, sub-lessee part Mabel Ck Station
 - d. Owner/Managers Arckaringa, Mt Barry, Wintinna and Mt Willoughby Stations
 - e. Hwys Dept Construction gang foreman on Coober Pedy - Oodnadatta Road.

14. LT Chaney and WO2 Adsett were interviewed by the Editor, Coober Pedy Times. An extract from Coober Pedy Times Volume 1 Number 4 is shown at Annex C.

Logistics

15. Supply. The following items were re-supplied:

- a. 1 x Landrover Speedometer Unit, and
- b. 1 x Turn Indicator Lever Unit

Both items were received within one working day of request.

16. Fuel. 41 Sup Bn supplied 9000 litres of AVTUR in drums. This was positioned at Coober Pedy Airstrip by 4 Tpt & Mov Gp. MT fuel was purchased by PST-18.

17. The following fuel was used during the Operation:

- a. AVTUR - 7600 litres
- b. MT Std - 1845 litres

18. Thirty-nine of the forty-five drums were returned to 41 Sup Bn by 4 Tpt & Mov Gp. This included four full drums. Of the remaining six drums, two full drums are positioned at Commonwealth Hill Station Airstrip and one full and three empty drums are positioned at Mt Willoughby Station Airstrip.

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

- a. 2 x Truck carryall $\frac{3}{4}$ ton GS series 3 Landrover
- b. 1 x Truck carryall 1 ton CL Ford F100, and
- c. 1 x Trailer Cargo $\frac{1}{2}$ ton.

20. Generally the vehicle performed well over the period of the operation with the following mechanical problems:

- a. The odometer section of the speedometer unit had seized.
- b. Turn indicator lever unit fused and burned out.
- c. Accelerator linkages continually separated causing loss of power.
- d. Right hand front wheel seal is U/S.
- e. Three mirrors were lost due to bolt or stud failures.

21. Due to single vehicle operations in semi desert areas, it is recommended that substantial spares be carried as appropriate to operations of this kind.

Communications

22. ~~Rear Link.~~ Rear link communications were provided by telephone operated by Telecom Credit Card. The three times per week sitrep to Keswick during working hours caused late starts or early returns until arrangements were made to contact the 2IC after hours at his home. It is recommended that Sitrep forms be given to Duty Officer HQ 4 MD to enable the party IC to phone through the report after returning from the days operations. When the Unit wishes to speak with the party I/C a message could be passed by the Duty Officer or the Motel receptionist for the IC to phone at a certain time.



(E.R. SCHULZE)

MAJ

OC

22 Feb 83

Distribution:

Reg No

Dept of Defence (Army Office)	5	1 - 5
(incl 3 for D Svy)		
HQ FF Comd		
(incl 1 for SO1 Svy)	3	6 - 8
HQ 4 MD	2	9 -10
5 Fd Svy Sqn	1	11
173 Gen Spt Sqn	1	12
Army Svy Regt	2	13 -14

Internal:

OC 4 Fd Svy Sqn	1	15
Library	3	17-19
Det IC	1	20



Col. HILLIER and Capt. PRAIN photo
annotating at Hardrock Bore.

Col HILLIER, WO2 ADSETT and Capt.
PRAIN being briefed on safety
procedures of the Pilatus Porter
by Lt. CHENEY



FIELD COMPLETION REPORT

Task

1. To field annotate 28 x 1:50 000 and 2 x 1:100 000 enhanced orthophoto maps in South Australia. The maps were contained within the following 1:250 000 map sheets:
 - a. SH 52-2 MURLOOCOPPIE
 - b. SG 53-13 EVERARD
 - c. SG 53-14 WINTINNA
2. Standards to be in accordance with RA Svy Symbolization All Series, 1:50 000 map specifications.
3. To fly supplementary photography in SH 53-5 Tallaringa and in the area of operations where necessary.

Execution

4. Organization. The force consisted of a two man party who carried out the annotation by road and air.
5. Deployment. At all times the party operated from the main base at Coober Pedy.

Field Annotation Material

6. Three units were involved in the preparation of field completion data:
 - a. 4 Fd Svy Sqn - plotted 20 x 1:50 000 and 2 x 1:100 000 areas
 - b. 5 Fd Svy Sqn - plotted 8 x 1:50 000 areas
 - c. Army Svy Regt- prepared fld completion materials
7. Units supplied Army Svy Regt with the following materials:
 - a. Grid pos and neg
 - b. Cultural compilation sheet
 - c. Field check overlay (where appropriate)
 - d. 2 x Contour compilation sheets (10m x 20m)
 - e. Base Control Sheet
 - f. P.D. Folder
 - g. Diapositives and control photography.
8. Army Svy Regt returned the following repromat:
 - a. 1 x $\frac{1}{2}$ ton neg and pos
 - b. 2 x Bromide prints, 1 matt, 1 gloss (composite grid and imagery)
 - c. 1 x Cult compilation sheet
 - d. 1 x F/c overlay (where appropriate)
 - e. 2 x Contour compilation sheets
 - f. 1 x P.D. Folder.

9. From the material supplied master ozafilm sheets of the cultural and field check sheets were produced for use in the field.
10. Photography. There was no photography available as Army Svy Regt held the only set and it was considered too expensive to produce another set.
11. Other Agency Data. As a result of technical liaison the following data was obtained from other agencies:
- a. Pastrol Plans
 - b. Dept of Mines and Energy dyeline topo maps
 - c. 1:250 000 maps of Everard, Wintinna, Oodnadatta, Giles, Murloocoppie, Warrinna, Tallaringa, Coober Pedy and Billakalina.
12. Field Annotation Methods. During the initial two weeks prior to the arrival of the aircraft a ground check was conducted in the more closely settled areas of Murloocoppie. After the arrival of the aircraft, all maps were air checked with the exception of 5842. These four sheets were only ground checked after the aircraft departure due to the hours allocated being used for supplementary photography tasks and in collecting and returning the camera.
13. The ground and air responsibilities included the annotation of cultural detail, road classification and obtaining and verifying names.
14. A compilation report was prepared for each 1:100 000 area detailing problems on specific aspects encountered in the field.
15. Murloocoppie. As no cultural detail had been plotted, annotation was done directly on to the bromides where the detail was visible. When the detail was not visible, the source data was used. The quality of mosaics varied drastically, some were clear and showed all detail, while others varied from snow white to jet black with consequential loss of detail. After the road annotation, the detail was drawn on the bromide to make the air check a confirmatory one in those areas. In the areas that were not ground checked, the detail was drawn on the bromide from the source data, then amended whilst flying.
16. Polaroid photographs of most bores and ground tonings were taken to assist in Cartography and Printing.
17. Everard and Wintinna. The field check packages for these 12 maps did not arrive until the day prior to them being needed to keep the operation moving, therefore, no ground check was done prior to the air check.
18. Prior to the day's flying, the plotted detail was transferred to the bromides, as most detail was not visible. The air check was a confirmatory one, adding new detail and deleting old detail where necessary.
19. As a safety measure, a note detailing the area of the day's operations and estimated time of return was left with the motel reception. If, in the event of a mechanical breakdown or accident, we had not returned by the stated time, the police were to be notified to enable a search to be mounted.

Conclusions and Recommendations

20. Selected cultural detail should be plotted as it is difficult to see on the half-tone bromides. The flying time would be significantly reduced as the annotator would only have to say yes or no and plot new detail.
21. Due to large amount of shrinkage in the bromide prints, it is recommended that a composite ozafilm of the grid and cultural be taken to the field to enable accurate plotting of new detail on the cultural sheet.
22. It is recommended that contone bromides be used in lieu of the half-tone. When a magnifier is used on the $\frac{1}{2}$ tone to try and clarify a small point of detail, all you can see are dots, whereas on a contone you see an enlarged image.
23. It is recommended that all maps to be checked be available to the field party prior to departure on the operation. This would enable the maps to be road checked prior to the arrival of the aircraft and the most efficient use made of the aircraft hours.
24. During the planning stages of the operation, AAVN should be requested to recommend which airstrips to be used and obtain the necessary clearances for them prior to the operation.
25. Because annotation parties consist of only two personnel on these small operations, there is a need for extra precautions to be taken in case of vehicle breakdown or accident. The procedure used on this operation had the vehicle somewhere within an area in excess of 1000 sq miles. It is suggested that approval be sought for future operations to communicate by radio with the Flying Doctor Service or local Police.
26. New roads around and to the south of Douglas Dam, GR 552413 on 5842-IV Bulletin need to be positioned by supplementary photography to be flown during the next stage of OP NOTARIAL when the 1:100 000 area is to be air checked.

STORES LIST

<u>Technical</u>	<u>Qty</u>
Binoculars GS	1
Calc Mach HP25	1
Compass Mag U/M Mile	1
Security Box Steel Fd Stationary	1
Wire steel 300'	1
Tape Measuring 30m cloth	1
Straight Edge 36"	1
Protractor circular 9"	1
Container food insulated	2
Polaroid camera	1
Cans water 20 litre	2
Cans POL 20 litre	6
Winch "Turfur"	1
Aerial Camera WILD RC 10	1

ARMY ON THE JOB

For those people in the town who have been wondering what that low flying green plane is, that has been evident over the town in recent weeks, I can now inform you that it's a Swiss Pilatus Porter.

It belongs to the army and is a short take-off and landing (S T.O.L.) aircraft. The plane belongs to the 173 General Support Squadron which is based at Oakey, Queensland. It is used for survey work anywhere in Australia and is currently being used in aerial photography for the production of topographical maps North of Coober Pedy.

In all about thirty maps will be produced in the 1:50,000 series between Coober Pedy and Marla Bore.

Eventually, these maps will be combined with previously completed maps to show the general transport corridor between Adelaide and Darwin.

No 4 Field Survey Squadron which is based in Adelaide is handling the survey side of the operation.

Maps will eventually be available through Mapland.

Technical details of the plane are:

Turbo prop engine developing about 550 s.h.p.

Stalling speed 40 knots

Maximum speed 120 knots

Designed to operate from rough strips of 1000 foot length.

The turbo prop. engine allows the plane to operate efficiently at high altitudes and enable survey work at heights up to 25,000 feet.

The boys in green will be here until about 30 November 1982.