

Series: AWM95
Australian Army commanders' diaries
[Vietnam]

Detachment, 1 Topographical
Survey Troop

Item number: 5/1/2

**Item: Detachment 1 Topographical
Survey Troop**

Operational Report no. 1

[photocopy]

[27 May - 7 Jun 1966]

~~E COMS TD SVY UNIT~~

7 Jun 66

Directorate of Military Survey
Army Headquarters
CANBERRA

OPERATIONAL REPORT NO.1PERIOD COVERED BY REPORT

1. This report covers the period from the date of the arrival of Det 1 Topo Svy Tp in VIETNAM to 7 JUN 66.

ARRIVAL IN THEATRE

2. Det 1 Topo Svy Tp arrived at Tanson Huit airport SAIGON on FRI 27 MAY 66 at 1100 hrs. At approx 1430 hrs the det was ferried by C130 transport plane to VUNG TAU. Lightweight tentage consisting of 1/11'-11' and 4 extensions was erected in area of Australian reinforcement Unit. The remainder of day 1 was spent consolidating accommodation and making arrangements for messing. Generally, reception in the area was good and a satisfactory standard of accommodation achieved immediately.

STAFF DIRECTION

3. On arrival at VUNG TAU, the det was located approx 75 yds from HQ 1ATF. OC det visited HQ 1ATF on 28 MAY 66 and briefed GS02 Ops on the responsibilities and capabilities of the det. (Copy of brief enclosed Annex A). It was decided that the GS02 INT would assume the responsibility of staff direction of the det. The outline of proposed tasks included in Annex A was accepted in broad principle.

ACTIVITIES

4. Using drawing material borrowed from the TF Int Unit an enlargement of the XA BINH 3A (6442IV) 1:50,000 sheet between grid lines E.42-46 and N66-70 was carried out to a scale of 1:5000. Additional detail was obtained from the "pictomap" series. The enlargement was produced on cartridge paper in normal map colours using a combination of pantograph and gridding techniques. Sgt King and Spr Smith were responsible for the drawing and in the time allowed produced a very creditable job.

5. Other tasks of a draughting nature were -
- a. A detailed plan of the proposed HQTF Layout in the forward area.
 - b. Provision of an overlay of the proposed 1ATF area on the XABINH 3A 1:50 000 sheet, in two colours - 50 copies.

During the week 30 MAY-4JUN66 addition tentage was erected and limited camp defenses prepared. The period generally has been one of acclimatisation for members with a considerable amount of physical activity included.

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'A' ASPECTS

6. Health:- apart from a mild outbreak of gastro disorder all members are in good health. Some problems of heat rash have been experienced, however this seems to diminish as members become acclimitised.
7. Morale:- is good. All members are anxious to be employed on technical tasks and to provide a useful service to the theatre. The proposed move to the forward locality is eagerly anticipated.
8. Recreation:- Most members have availed themselves of a visit to the city of WUNG TAU. Such visits are not popular, and most prefer to use canteen facilities in the area.
9. Postal:- Mail is being received by members in the theatre from Australia. Average time taken from date of posting to date of receipt seems to be 4 days. At time of report, no mail had been received by addressees in Australia up to and including Fri 3 JUN. In no case does this period exceed 6 days.

Q ASPECTS

10. At time of report, det equipment was not available from sorting area ex HMAS Sydney. There is nothing of a Q nature to include in this report.

FUTURE PLANNING

11. Det 1 Topo Svy Tp will move to forward TF area (GR430665 XA BINNBA 1:50000) on Sat 11 Jun 66. A n advance party will move forward on Fri 10 Jun 66 and erect tentage and commence digging defences.
12. It is anticipated that the following tasks will be undertaken by the det
 - a. Co-ordinate the feature NUI DAT (GR434675) for artillery purposes.
 - b. Provide overprint of VUNG TAU 1:12500 of road system associated with the Australian Forces area. This task has been partially completed from RAE tacheometric survey of the area. All fieldwork has been completed and it is intended to produce the repromat on chronaflex immediately det stores become available. Tentative arrangements have been made to have the VUNG TAU 1:12500 overprinted by 569 Engineer Coy (Topo) Corps at NHATRANG. It is intended that this task will be a trial of the principle of having overprints carried out by the 569th Coy.
 - c. Preparation of large scale mosaic and plan of LONG XUYEN village for purpose of control and civil aid programme. New photography has been ordered for this purpose and this task will be treated as priority 1. The task will be in three phases -
 - i. Preparation of annotated mosaic
 - ii. Preparation of trace directly from annotated mosaic and dyeline duplication
 - iii. Preparation of planimetric plot of village, colour separated for offset reproduction. Plotting by sketchmaster.

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- d. Preparation of large scale plan and mosaic of Long Phuoc village including tunnel location and survey.
- e. Preparation of mosaics of other villages in the PHUOC TUY Province, in particular BINH GIA. GR490770.
- f. Improvement of and extension of the NUI DAT 1:5000 enlargement from stereoscopic photo examination and detail plotting in conjunction with Int patrol reports. This will lead to eventual colour separation and offset reproduction.

(SGD)

OC Det 1 Topo Svy

ANNEXES TO REPORT

- ANNEX A - BRIEF FOR HQ1ATF
- ANNEX B - REPORT ON LIAISON VISIT BY
OC DET 1 TOPO SVY TP to
US MAPPING AUTHORITIES IN
SAIGON
- ANNEX C - REPORT OF VISIT TO 569th
ENGINEER COY (TOPO) (CORPS)
NHA TRANG.

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ROLE

1. The role of Det 1 Topo Svy Tp within the TF is to provide survey and limited mapping facilities to the TF.

ORGANISATION

2. The organisation outlined is intended to be flexible.

OC (Capt)
Spr Batman Dvr
Pte cook

ADMIN & MAP DIST

W02			W01 (21c)	
ORD ROOM Cpl	Q STORE Cpl T'Stmm	MAP STORE Spr T'Stmm	SURVEY	DRAWING Sgt Spr
			<u>PARTY (1)</u> Sgt Cpl Spr	<u>PARTY (2)</u> Sgt Cpl Spr Spr

<u>Vehicles</u>		<u>Weapons</u>	
2 1/2 Ton Landrover GS	2	Pistols	3
2 Ton Trlr	2	SLR	6
		OMC	8
		AR	2

TASKS

3. In accordance with Trg Info Bulletin No 8, Det 1 Topo Svy Tp is capable of carrying out the following tasks:-
- a. Establish survey control in the operational areas as a base for the theatre grid and co-ordination of fire control. This then serves as a basis for RAA survey.
 - b. Prepare and carry out overprint amendments to existing maps.
 - c. Produce enlargements and sketch maps.
 - d. Hold limited stocks of maps and distribute maps within the division.
 - e. The officer commanding the det advises the TF Comd and staff on survey matters.

LIMITATIONS

4. The following limitations apply in carrying out the tasks stated above.

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5. Survey Control of RAA Survey

The det carries trig lists of all areas of likely interest to 1TF in Vietnam. The lists are compiled with reference to 1:50,000 map areas, and 100 copies of each area are held. In addition to this a single master copy of all available survey control in SE Asia is held by the det, and from this master copy, trig lists can be prepared of any other 1:50,000 area if necessary. The density of control points to a 1:50,000 area varies from 3 to in excess of 400. Liaison with ARVN or US authorities may be necessary to determine the reliability of these points.

6. In the area of immediate interest to 1TF, density of control points is shown hereunder:-

1:50,000 Sheet

No of Points

7. Det 1 Topo Svy Tp has the necessary equipment to extend this control as required. In doing so however, the requirement for protection might limit the operation to that which is absolutely necessary.

8. An essential task of the det as soon as it is operational in VIETNAM must be to check the reliability of the existing control within the VUNG TAU area by ground measurement.

9. Printing & Overprinting

The det has no offset printing facility of its own in VIETNAM. This means that overprinting of existing maps can only be done by either:-

a. An arrangement for reproduction by the US mapping unit (569th Engineer Corps Topo Coy)

b. Sending the reproduction material (drawings) of the overprint back to AUSTRALIA.

10. Enlargements, sketch maps and any other drawing can only be copied by the "dye-line" process. This is a photographic process, and will produce a copy from a trace showing black detail against a white background.

11. Enlargements and Additional Map Information

The det can produce enlargements as

a. Simple direct enlargements from the existing 1:50,000 map series showing no more detail than that shown on the 1:50,000 series.

b. Enlargements showing additional map detail. The additional detail may come from

(1) Intelligence per patrol reports

(2) Inspection of air photographs.

12. Information from Patrol Reports:-

This is usually in the following forms

- a. Reports of map inaccuracies in the shape of tracks, creeks
- b. Reports indicating missing detail both cultural (ie man made) and physical (creeks etc).

13. Inspection of Air Photographs

This provides detail in the following forms:-

- a. Where creek and contour shapes have been "generalised" for the smaller 1:50,000 series, these can be re-drawn for the enlargement showing more detailed shape.
- b. Cultural detail apparent on the air photo can be added to the map.

14. Because the enlarged 1:50,000 with improved and additional detail closely approximates a standard larger scale map (as opposed to a simple direct enlargement) and tends to carry the same authority as a standard large scale map, it is very desirable to field check additional cultural detail. This requirement is even more necessary in a land unfamiliar to the photo interpreter.

15. Photomaps & Photo Mosaics

Large scale photomaps of any area of interest could be produced by the det, provided suitable air photographs were available. These could take the form of either:-

- a. Simple photo-mosaics at an approximate scale showing names, and some accentuation of important detail.
- b. Annotated photomaps showing the following treatment.
 - (1) Cultural detail (including cultivation) accentuated in appropriate colours.
 - (2) Creek detail accentuated in blue or white.
 - (3) Contours overprinted.
 - (4) Grid shown.

This type of photomap would be similar to the American "Pictomaps"

16. Reproduction of photomaps could be in the following forms.

- a. Photographic reproduction up to 20 copies in tones of black and white.
- b. Printed reproductions in other colours - unlimited copies.

In both cases, reproduction cannot be carried out by the det. Arrangement for reproduction might be possible with the American mapping unit. Failing this, reproduction can be carried out in Australia.

17. From the arrival of HMAS SYDNEY, Det 1 Topo Svy Tp will carry map stocks as shown in Annex A to this brief. (In accordance with ADF Map Policy in Vietnam).

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18. It is intended that resupply of maps will be from American sources. Bulk stock will also be available from Australia if required. Maps of South Vietnam are available as follows:-

- a. 1:250,000 (L509 series). This series is to be completely replaced by JOINT OPERATION GRAPHICS (JOGs) at the same scale. The series is being produced in two simultaneous editions, JOINT OPERATION GRAPHICS - AIR and JOINT OPERATION GRAPHICS - GROUND (JOG -A) & (JOG - G). The JOG - A shows contour values in feet and additional air information. The JOG - G shows contours in metres.
- b. 1:50,000 (L701 series). This series is being replaced by a new 1:50,000 series (L7014 series). The new series will be on a format of 15' x 15' as opposed to 15' x 10' for the L701 series. The new series will be revised in detail and should be generally available in AUG - SEP 66.
- c. CITY PLAN SERIES (1:12500) - bulk stocks are held by Det 1 Topo Svy Tp of VUNG TAU and SAIGON.
- d. SMALL SCALE & GENERAL INTEREST MAPS are held as shown in Annex A.

SUGGESTED TASK IN SOUTH VIETNAM

19. It is suggested that the following tasks be undertaken by Det 1 Topo Svy Tp on becoming operational.

- a. Location and identification of ground control points in VUNG TAU - BARIA AREA.
- b. Verification of ground control points by ground measurement.
- c. Revision of VUNG Tau City Plan (1:12500) with particular reference to LSG area.
- d. Provision of a large scale (1:5000) plan of TF HQ area a BARIA.
- e. Provision of 1:25000 enlargements with revised detail in TF areas of interest.

Capt
OC Det 1 Topo Svy Tp

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ANNEX B TO
SURVEY OF REPORT NO.1

REPORT ON LIAISON VISIT BY OC DET 1 TOPO SVY TP
TO US MAPPING AUTHORITIES IN SAIGON

GENERAL

1. During the period Mon 30 May to Sat Jun 4 66 OC Det 1 TOPO Svy Tp visited US MAPPING AUTHORITIES IN SAIGON. During the period of the visit OC Det also visited 569 Engineer Coy (Topo) (Corps) at NHA TRANG. This visit is covered in a separate report (ANNEX C).

PURPOSE OF VISIT

2. The purpose of the visit was to
- Establish a system of map resupply
 - Establish a system of air photo supply
 - Establish a principle of channelling map overprinting

CHRONOLOGICAL SUMMARY

3. Mon 30 May (1) OC departed VUNG TAU for TANSON NUIT
(2) OC visited HQ AFV at FREE WORLD MILITARY ASSISTANCE BUILDING. Maj Darmody (GSO2 Int) sponsor officer.
(3) OC visited Lt Col Benton-Chief of Mapping and Intelligence Division Engineer Section HQ US Army Republic of Vietnam (USARV).
- Tue 31 May (4) OC visited Maj Riggs (G2 USARV) ref air photos.
- Wed 1 Jun (5) OC departed HQ AFV (1200h) for NHA TRANG. ARR 1430h.
- Thur 2 Jun (6) OC inspected technical platoons of 569 Eng Co
(7) OC departed NHA TRANG 1630
- Fri 3 Jun (8) OC attended Comd AFV briefing
- Sat 4 Jun (9) Departed TANSON NUIT for VUNG TAU.

DISCUSSION OF VISITS
MAPPING

4. Brief outline of US COMMAND.
The major HQ in Vietnam is the US Military Assistance Command, Vietnam (MAC-V) and until about SEP 65 tyis HQ was responsible for most of the services which included mapping. With the building up of US Forces, US Army Republic of Vietnam (USARV) was established and in about Oct 65 took over the mapping service from MAC-V.

5. The chief of the MAPPING AND INTELLIGENCE DIVISION, ENGINEER SECTION USARV is Lt Col A.R. Benton. In this capacity, Lt Col Benton controls the two main US mapping units, viz 569th Engineer Coy (Topo) (Corps) at NHA TRANG and 547 Engineer Map Depot at SAIGON. In addition to this he influences the operation of the ARVN Topo Coy.

6. Lt Col Benton has had wide experience in mapping, and has been associated with USAMFE for some years.

1:25000 series (Pictomaps)

7. Full coverage of PHUOC TUY PROVINCE and most of IICTZ is available. Up to date indexes are available. Current US stocks of this series are low and it is not clear when replacement stocks will be available. The series is compiled and published out of country.

8. OC Det 1 Topo Svy Tp has ordered 500 copies of pictomaps in the area bounded by -

Long E 106° 45' - 107° 30'
Lat N 10° 30' - 10° 52'

In addition 10 copies of each pictomap in the surrounding area between

Long 106° 30' - 107° 45'
Lat 9° 45' - 11° 00'

Where map depot stocks are below 500, only 10% of remaining stocks will be issued in any single order.

1:50 000 series (L701)

9. This series is still current and map stocks arriving from Australia will not be obsolete until the introduction of the L7014 series is well under way and areas adjacent to PHUOC TUY have been completed. Issue of this series is being withheld until bulk stocks are built up and block coverage is available.

1:250,000 series (L509)

10. This series has been completely superseded by the JOINT OPERATIONS GRAPHICS, Ground and Air. 1:250000 (L509) series in transit from Australia will be destroyed on arrival and replaced by JCG-G. A holding of JCG-A will also be obtained.

Map Orders - channel of Supply

11. All replacement map stocks will come from 547 Eng Map Depot. This unit normally arranges transport of maps to the unit concerned and will accept this responsibility on behalf of 1 A.T.F. In the case of large map orders it is intended to send a senior NCO or WO to SAIGON to supervise the collection and shipment. The channel for map orders is direct to 547 Eng Pl. Relevant Map Request forms have been obtained.

AIR PHOTOGRAPHY

12. The procedure for obtaining air photography is less clear than that for maps. Negatives for most photography flown in SVN are held by 13th Recce Tech at TAH SON NUIT. The agency responsible for the distribution of photography and the flying of new photography is the AERIAL RECONNAISSANCE - SURVEILLANCE SUPPORT of the 1st Military Intelligence Bn.

13. Photography at a scale of 1:250000 of PHUOC TUY Province has been ordered and in part, received. The photography is dated between Nov 65 and Mar 66. It is not generally of good quality however will provide some facility for stereoscopic examination of the area.

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14. Future airphoto orders of 1 ATF origin for either existing or new photography, should be submitted through HQ Field Force VICTOR II at Bien Hoa.

OVER PRINTING AND REPRODUCTION FACILITIES

15. Lt Col Benton sees no problem in carrying out overprinting or publication of mosaics requested by 1 ATF. This could be done by either the ARVN Topo Coy, or 569 Eng Coy at Nha Trang. Security would be the deciding factor. Again a senior NCO or WO from 1 Topo Svy Tp to shepherd the task through to completion would be desirable

(Sgd)
OC Det 1 Topo Svy Tp

REPORT ON VISIT TO 569 ENGINEER COY (TOPO) (CORPS)

BY OC DET 1 TOPO SVY TP

GENERAL

1. During the period 1-2 Jun 66, OC Det 1 Topo Svy Tp visited 569 Engineer Coy (Topo) (Corps), of the US Army at NHA TANG.

PURPOSE

- 2. The purpose of the visit was to
 - a. Establish a first hand appreciation of the capability of an Engineer Coy (Topo) with particular reference to the lithographic reproduction facility.
 - b. Establish a personal contact with 569 Engineer Coy for the purpose of utilising their reproduction facility.

DISCUSSION

3. The following paragraphs discuss the visit under appropriate headings.

4. Organisation and Command

The 569 Engineer Coy is organised along the following lines

HQ HQ Staff
 OC Capt
 2 IC Tech Production Officer (2LT)

Field Svy Pl OC - WO	Carto Draw Pl OC - WO	Litho Repro Pl OC - WO	Map Dist Sec OC - 2LT
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Fd Svy Sec	Pd Svy Sec	Draw Secs	Plate Making Sec	Photo Sec	Printing Sec
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Approx overall strength	125
Officers	3
WO	3

5. The coy is commanded by a captain US Corps of Engineers (Capt J.O. Strother). The appointment is a staff appointment within the Corps of Engineers and need not be filled by a technical officer. Capt Strother had not previously served with a Topo Coy prior to his current appointment.

6. The Executive Officer (XO) (2IC) of the Coy is a Lt and has had technical training. As such, the XO is responsible for production control.

7. Each of the platoons is commanded by a WO who is skilled in his profession. OC 1 Topo Svy Tp met the WO in charge of the Carto Pl - Litho Pl and was able to discuss in detail with these officers procedures used by the Coy. Unfortunately the Survey Pl was absent on Field Svy Duties and the WO in charge of this pl was therefore not available for discussion, however the activities of the Survey Pl were discussed with the Xo.

LOCATION AND TOUR OF DUTY

8. 569 Engineer Coy moved into the theatre at NHA TRANG in Aug 65. The tour of duty of all officers and enlisted men will finish in Aug 6 when a complete change over will take place.

ALLOCATION

9. The Coy is allocated to a Corps. In SVN the Coy is under Army control. It is probable that a further Coy will be deployed in the theatre at a later date, so providing direct support for III CTZ. The present coy will then come under command of II CTZ.

MOBILITY

10. With the exception of map and paper stocks, the Coy is completely mobile in its own vehicles. The type of vehicles used is discussed under platoon headings. The Coy had not been used in a mobile role in SVN.

SURVEY PLATOON

11. Role - The role of the survey platoon is to provide survey control for artillery and mapping purposes.

12. Equipment - The platoon possesses the following major items of equipment. The quantities stated are approximate and are included only to give an indication of capability.

Theodolite	Wild T3	1
"	Wild T2	8
Electronic distance		
measuring equipt	(Fairchild)	4 systems
Dumpy Levels		4
Altimeters		6

and all other normal survey equipment.

13. Vehicles - $\frac{3}{4}$ Ton 4 wheel drive vehicles with trailers to carry all personnel, stores and equipment.

14. Nature of duties in SVN. The survey platoon has not been used in its intended role, except to a very limited extent, due mainly to the tactical situation. However a limited amount of control recovery has been carried out in the Nha Trang area. The platoon incurred a casualty due to enemy action in this phase of its work. Generally, a clearing operation of Coy Strength is carried out by infantry prior to the surveyors moving in. Further protection at platoon strength is provided where necessary.

15. In recent months the platoon has been employed in carrying out "cartonement surveys". These are in fact a camp location - pickup survey. Currently, the platoon, working in sub-units is engaged in both this type of survey and also in astro fixations for approx position for HIRAN SVY. Some astro fixations have been carried out to provide position for landing zones.

Photogrammetry is not a Survey Pl. responsibility.

CARTOGRAPHIC DRAWING PLATOON

16. Responsibilities - The carto drawing pl carries out all forms of map compilation and drawing. In the present theatre of operation, its duties have been mainly as follows

- a. Preparation of mosaics - mostly uncontrolled, but some are controlled and gridded.
- b. Preparation of Intelligence overprints and overlays. These may be drawn or scribed for reproduction.

17. These tasks are sufficient to keep this platoon fully occupied. Apart from minor work for local units, all tasks are ascribed a priority by the Chief of the Mapping and Intelligence Division, Engineer Section USARV.

18. Equipment - The following notes describe the capabilities of equipment held by the carto platoon, and their present use.

- a. Ozalid Machine - dry ammonia process - used to reproduce minor plans and traces - positive from positive. Can produce a transparent copy.
- b. Brunning Copyflex (diaz machine) - wet process. Can be used to reproduce onto a presensitised paper in any of 5 colours (black, red, blue, green, yellow). Can also be used to overprint in colour on the face of an existing map, the surface of the map being first sensitised with a solution. The colour is determined by the developing solution.
- c. Varsityper - Headliner Model 840. This is a photo type-setting machine which produces various styles of type in sizes ranging from 2pt to 24 pt. The machine measures approximately 24" x 2" x 15" and the type is photographed onto a 35 mm strip film with a pre-gummed back. The type so produced can then be trimmed to size and stuck down to a transparent or opaque drawing after removing the protecting skin from the gummed surface (similar to mipofolie). The type style is obtained from a circular clear plastic disc which can be rotated between the film and a light source. A letter is selected and the light source then activated (analagous to the disc on a dyno machine). The type style is changed by selecting a different disc. The film is automatically developed as it passes through the machine.
- c. Photo Rectifier - Bausch and Lomb. - This is a highly developed enlarger. The copy board can be rotated about both an X and Y axis, or moved vertically on the Z axis. The lens can be moved in an X, Y or Z direction. All movements are motor driven and vernier scales provide the means of recording all movement in relation to the horizontal.
- e. Vertical Reflecting Projector. This projector works on the reflex principle. It is vertically mounted on a copy board and can take a 9" x 9" photographic print or mapportion, for enlargement or reduction. The projector is self focusing. 569 Eng Coy use this equipment extensively for enlarging and reducing photo detail to plot this directly into the face of an existing map.

f. Steel Arm Template Assembly Set. The set consists of a variety of steel arms made of thin stainless steel about $\frac{1}{8}$ " wide and lengths varying from 4" to 15". At one end of each arm is a $\frac{1}{4}$ " hole and at the other end, a slot $\frac{1}{8}$ " wide and about $2\frac{1}{2}$ " long. The template is made by bolting together the required number and type of steel arms at the hole end with a flat bolt which is drilled concentrically with a $\frac{1}{8}$ " hole. The assembly of arms is then placed over the photo on which Principal Points and Minor Control Points are marked and the arms adjusted radially from the PP to fit the MCA positions. The template assembly is continued in the normal way.

569 Eng Coy use the template assembly mainly for controlled mosaics. The template positions plotted on a gridded sheet are used as the basis of photo rectification, the photo simply being adjusted to coincide with the MCP positions.

g. Vehicles - All the equipment described is mounted in air conditioned vans, most of which have extendable sides. All vans with the exception of two older types are air conditioned dust proof and gas proof. The carto platoon has 8 vans including an operation planning van. The extendable sides roughly double the floor space of the van giving approx 15" square. The vans are mounted on the chassis of a truck, ie they are not towed.

LITHO REPRODUCTION PLATOON

19. Reproduction falls into two categories

a. Stock production of L500 series and L701-L7014 series, accounting for nearly 50% of work load.

b. Overprints and mosaics prepared by the carto platoon, accounting for remaining 10% of work load.

20. The Reproduction platoon is capable of 600000 impressions per month, and this figure is approached most months. The number of runs on any task rarely exceeds 4000. Overprints are rarely in runs of more than 400, and can be as low as 10 or 20.

21. Equipment - The Litho reproduction platoon has the following major items of equipment

a. Process Camera - vacuum backed copy board about 4' x 5'. Maximum size of film neg 24" x 30", capable of enlarging to 300% and reducing to 25%.

b. Single Colour Offset Printing presses - of light weight alloy frame construction - Corps of Engineers model. Normal running speed for best registration is 3500 impressions per hour. The platoon has two such machines, each mounted in an air conditioned van.

c. Paper Guillotine - 30" cut, hydraulically operated with 2 handed control.

22. The platoon uses pre-sensitised aluminium plates. These are simply contacted neg to plate in a vacuum frame before an arc light. A de-sensitising solution is applied, the plate washed down and the image dyed red. The plates are double sided and are destroyed after use by dissolving in a caustic bath. The plates are .010 in thickness.

23. Zinc plates are held for emergency use, but have not had to be used so far in the theatre. A hand polishing machine, which is nothing more than a floor polisher, is held for this use.

MAP DISTRIBUTION SECTION

24. The map distribution section carries stocks in the vicinity of 600000. The weekly distribution rate is about 50000.

25. The section is temporarily accommodated in a corrugated iron hut with earth floor. Dust is a major problem. Shelves are roughly constructed of packing case timber. In due course the section will be properly accommodated.

LIST OF OFFICERS MET DURING VISIT

26. The officers of 569 Eng Coy (Topo) (Corps) met by OC Det Topo Svy Tp are as follows.

OC		Capt	J.O. Strother
XO		2/Lt	Henson
Comd	Map Dist Sec	2/Lt	Cole
"	Carto Pl	WO	S. Key
"	Litho Pl	WO	W. Brogan

OC Det 1 Topo Svy Tp ^{Capt}