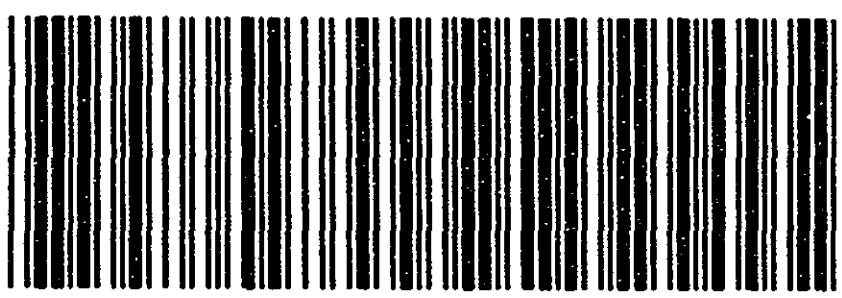
AWM52

Australian Military Forces, Army headquarters, formation and unit diaries, 1939-1945

1/4/8 CORPS

2 Australian Corps General Branch (2 Aust Corps 'G' Branch)

October 1943 - March 1944, Report on operations



1/4/8-0189

SECRET

Copy No 29

2 AUST CORPS REPORT ON OPERATIONS

Adv HQ 2 Aust Corps (AIF)
11 Apr 44
G/605/Ops.

NEW GUINEA Force (Copies 1 - 5)

1. The attached report is submitted in regard to the operations of 2 Aust Corps during the period 8 Oct 43 to 1 Mar 44.

Lt-Gen,
Comd 2 Aust Corps.

COPIES FOR INFORMATION	Copy No
1 Aust Corps	6
5 Aust Div	7
7 Aust Div	8
9 Aust Div	9
11 Aust Div	10
RAA 2 Aust Corps	11
B Aust Corps Sigs	12
LAE Base Sub Area	13
FINSCHHAFEN Base Sub Area	14
GOC	15
BGS	16
G Ops	17
G Int	18
CE	19
DA & QMG	20
DAMS	21
A	22
Q	23
DDST	24
DDMS	25
DDOS	26
DDME	27
File	28
War Diary	29 - 30

25 APR 1944

2 AUST CORPS REPORT ON OPERATIONS

8 OCT 43 - 1 MAR 44

CONTENTS

PART 1

SUMMARY OF EVENTS

Section.	Subject.	Page.
1	Introductory	4
2	Map References of Place Names used	4
3	Summary of situation on Relief of 1 Aust Corps and subsequent Points Affecting Corps Policy	7
4	Operations - HUON PENINSULA - 9 Aust Div (8 Oct 43 - 20 Jan 44)	10
	Phase 1 - Japanese Counter Offensive (8 Oct 43 - 25 Oct 43)	10
	Phase 2 - Preparation for the Offensive (26 Oct 43 - 15 Nov 43)	17
	Phase 3 - Attack on SATELBERG and the PABU Operation (16 Nov 43 - 25 Nov 43)	24
	Phase 4 - Capture of GUSIKA - WAREO (26 Nov 43 - 7 Dec 43)	31
	Phase 5 - Advance to FORTIFICATION POINT (8 Dec 43 - 20 Dec 43)	39
	Phase 6 - Coastal Advance to SIO (21 Dec 43 - 20 Jan 44)	44
5	Operations - HUON PENINSULA - 5 Aust Div (20 Jan 43 - 6 Nov 43)	51
6	Maintenance (9 Aust Div and 5 Aust Div)	53
7	Operations - RAMU VALLEY - 7 Aust Div (8 Oct 43 - 6 Nov 43)	54
8	Conclusion	55

PART II

LESSONS FROM OPERATIONS

Section	Subject	Page
1	Enemy Tactics	58
2	Own Tactics	59
3	Intelligence	67
4	Artillery	71
5	Engineers	75
6	Signals	76
7	Employment of Army Tanks	78
8	Air	93
9	A Branch	96
10	Q Branch	98
	A. Organisation and Policy	98
	B. S & T Services	105
	C. Ordnance Services	107
	D. AEME Services	111
11	Suggestions for Training	112
	A. General	112
	B. Schools	119
12	Organisation - Jungle Division	120

PART III

REVIEW OF EQUIPMENT AND WEAPONS

Section	Subject	Page
1	Artillery	122
2	Engineers	124
3	Signals	125
4	Infantry	127
5	Tanks	132
6	Motor Transport	136

LIST OF APPENDICES

Appendix.	Subject.	Page.
A	2 Aust Corps Operation Order 2 of 29 Oct 43	139
B	2 Aust Corps Operation Order 3 of 30 Dec 43	142
C	Congratulatory Signal to 9 Aust Div	143

LIST OF MAPS

Map No.	Designation.
1	Dispositions - 9 Aust Div FINSCHHAFEN 8 Oct 43
2	Dispositions - 9 Aust Div FINSCHHAFEN 16 Oct 43
3	Dispositions - 9 Aust Div FINSCHHAFEN 16 Nov 43
4	Operations SATELBERG-BONGA-WAREO 16 Nov-17 Dec 43
5	Dispositions - 9 Aust Div - 1800 hrs 9 Dec 43
6	Coastal Advance GUSIKA-FORTIFICATION POINT
7	Dispositions - 9 Aust Div SIO-KELANOA 15 Jan 44
8	Coastal Advance 21 Dec 43 to 15 Jan 44 FORTIFICATION POINT to SIO 20 Aust Inf Bde
9	Coastal Advance 20 Jan - 10 Feb 44 SIO-YAGOMI Patrols TAPEN area 10 Feb-- 1 Mar 44 8 Aust Inf Bde
10	Dispositions - 7 Aust Div - RAMU VALLEY 8 Oct 43

PART 1.

SECTION 1.

INTRODUCTORY.

1. This report is divided into the following main parts:-

   (a) Part I - Summary of Events.

   (b) Part II - Lessons from Operations.

   (c) Part III - Review of Equipment and Weapons.

2. Part I deals with the operations of 5, 7 and 9 Aust Divs for the period during which they were under command 2 Aust Corps. The section relating to 9 Aust Div has been given in the form of an outline summary followed by a daily summary in order to include, in their chronological relation to land operations, details of air strikes and PT boat operations, which, during this phase were of great assistance to our land forces, both in direct support and in the disruption of the enemy supply by barge along the RAI coast. Sections dealing with the operations of 5 and 7 Aust Div do not contain details of air strikes and PT boat operations as, in the case of 7 Aust Div, air support was arranged by the formation direct with NEW GUINEA Force, and, in the case of 5 Aust Div, Air Force and PT boats were operating further afield and not in such close contact with our land forces. Consequently these sections are in outline only, details being contained in the reports of formations.

3. Comments on lessons from operations and equipment are contained in formation reports which have, or will be, forwarded separately, with comment by this Headquarters as necessary. Consequently Part II and Part III of this report contain only:-

   (a) information additional to that contained in formation reports and

   (b) reference to relevant documents already forwarded by this Headquarters (to NEW GUINEA Force only).

SECTION 2.

MAP REFERENCES OF PLACE NAMES USED.

Reference Maps 1/25000 (Second Edition) series.

SHEET NO.	MAP.
1	MAPE RIVER
2	LANGEMAK BAY
3	SATELBERG
4	FORTIFICATION POINT

SHEET NO.	MAP.
5	MASAKENG RIVER WEST
6	WALINGAI
7	KALASA
8	CAPE KING WILLIAM
9	SCHARNHORST POINT
10	SIO
11	PESCHEL POINT
12	REISS POINT
13	IEPSIUS POINT
14	GALI
15	GAUSS POINT
16	DUMPU
17	KUMBARUM
18	PAIPA
19	AMUBA
20	BOKU RIVER
21	JAPPA
22	GUNU
23	YAULA

Reference Map 1 inch to 1 mile (overprint) Series.

24	KULUNGTUFU

PLACE.	SHEET NO.	MAP REF.
AGO	6	474903
ARNDT POINT	3	629660
BLUCHER POINT	7	434997
BONGA	4	632725
BUTAWENG	2	595540
BUZULUO	5	534718
BOPONG	24	336742
BAUAK	23	602933
BWANA	14	760555
COCONUT BEACH	4	616764
CHISSI POINT	9	237189
COCONUT RIDGE	3	550648
CAPE SIBIDA	4	594791
CAPE KING WILLIAM	8	3114
DUMPU	16	683513
DREGER HARBOUR	2	6449
DORFER BAY	11	1743
EXCHANGE	4	617722
FINSCHHAFEN	2	6257
FIOR	3	546693
FORTIFICATION POINT	4	5883
FOUGASSE CORNER	3	551649
FORTIFICATION HILL	4	5882
GURUMBU 2	17	741618
GURUMBU	17	738623
GALI	13	853565
GNEISENAU POINT	9	508417
GREEN RIDGE	3	559647
GARABOK	3	574673
GNAOPOA	4	622753
GUSIKA	4	626733
GURUNKOR	1	550607
GALI 2	14	810814
GABUTAMON	14	705600
HEIDSBACH PLANTATION	3	6165
HUBIKA	4	562848
HARDENBERG POINT	8	3807
HILL 2600	3	559662
HOMPUA	5	474814
HILL 1800	4	580718
JIVEVANENG	3	569648

PLACE.	SHEET NO.	MAP REF.
JOANGENG	24	3672
JAPPA	21	443913
KWAM KWAM	8	366088
KUMBARUM	17	6956
KING HILL	17	697572
KELANOA POINT	9	2319
KULUNGTUFU	24	300720
KUNKO	5	556710
KWATINGKO	5	547714
KAMLAGIDU POINT	4	6275
KNOLL	4	567734
KIARI	11	274417
KANOKI	7	432992
KALASA	7	303055
KELANOA	9	233199
KILIGIA	4	611773
KULAWA	3	553630
KATIKA	3	617669
LAKONA	4	594789
LEPSIUS POINT	13	9556
LANGEMAK BAY	2	6255
LOGAWENG	2	617520
LAUNCH JETTY	3	616639
LAKES	4	5971
LAGOON	4	6274
MT PROTHERO	18	6864
MERIKEO	5	478730
MARARUO	3	520658
MORENG	3	515622
MASANGKOO	3	531682
MALASANGA 1	12	143475
MALASANGA 2	11	152465
MALASANGA 3	12	122464
NORTH HILL	3	6269
NAMBARIWA	10	482422
NANDA	7	393038
NUZEN	7	3805
NONGORA	3	585702
NEMAU	12	135488
PESCHEL POINT	11	2343
PALANKO	3	553670
PIMPIE	3	565646
PABU	4	611717
PEAK HILL	5	552714
PINO HILL	3	624705
R. UENAGA	9	5938
R. BURI	9	5540
R. SAZOMU	8	2214
R. DALIMAN	8	2219
R. KAPUGARA	9	5040
R. GOALING	10	4742
R. FARIA	17	6855
R. URIA	17	6955
R. SURDIAM	17	7655
R. BOKU	20	3874
R. KALUENG	4	6273
R. TUNOM	4	6075
REISS POINT	12	1347
ROINJI 1	13	952559
RUANGE	14	790573
R. SOWI	4	6076
R. URAWA	13	9155
R. SANGA	4	5878
R. QUOJA	3	5762
R. MASAWENG	4	584808
R. TEWAI	6	4494
R. BUMI	2	618593
R. MAPE	2	603550

PLACE.	SHEET NO.	MAP REF.
R. SONG	3	623678
R. SIKI	3	621669
R.KWABIA	10	3645
R. ASIWA	10	3142
SIO MISSION	10	418438
SIKI COVE	3	621670
SIALUM	8	347114
SIO	10	4346
SATELBERG	3	544661
SCARLET BEACH	3	622675
SIDEBANG	2	605552
SISI	3	557644
STEEPLE TREE	3	548648
SUSPENSION BRIDGE	3	554636
SPRY STREET	3	539656
SCHLANGEN HARBOUR	11	2442
STOLZENFELS SPUR	9	4940
SCHARNHORST POINT	9	561409
SPUR	17	735578
TELIATA POINT	10	437470
TURNOFF CORNER	3	537655
TIRIMORO	1	577578
TAREKO	3	598645
TAPEN	14	729556
URIGINA	22	348825
VINCKE POINT	10	3646
WANDILUK	14	727537
WAREO	5	552717
WALINGAI	6	459922
WANDOKAI	5	515880
WALEN ROCK	3	562647
WASU	11	2841
WEBER POINT	15	7863
XMAS HILLS	4	580718
YAGOMI	15	700678
YAULA	23	553864
YOKOPI	19	587768
ZAGAHEMI	24	415852

SECTION 3.

SUMMARY OF SITUATION ON RELIEF OF 1 AUST CORPS

AND

SUBSEQUENT POINTS AFFECTING CORPS POLICY

1. HQ 2 Aust Corps relieved HQ 1 Aust Corps at DOBODURA on 8 Oct 43, Lt-Gen Sir Leslie MORSHEAD KCB, KBE, CMG, DSO, ED, taking over from Lt-Gen Sir Edmund HERRING KBE, DSO, MC, ED.

2. On this date the formations which came under command HQ 2 Aust Corps for operations were as follows:-

   (a) 5 Aust Div comprising 4, 15 and 29 Aust Inf Bdes (but with 22 Aust Inf Bn of 4 Aust Inf Bde under command 9 Aust Div).

   (b) 7 Aust Div comprising 18, 21 and 25 Aust Inf Bdes.

(c) 9 Aust Div comprising 20, 24 and 26 Aust Inf Bdes plus 22 Aust Inf Bn and with 532 B and S Regt 2 ESB under command.

(d) 11 Aust Div comprising 6 Aust Inf Bde and Divisional Troops.

3. The roles of these formations were as set out below:-

Serial.	Formation.	Area.	Role.
1	5 Aust Div	LAE - NADZAB	To defend the LAE FORTRESS area and protect NADZAB.
2	7 Aust Div	RAMU VALLEY (less 18 Aust Inf Bde at MORESBY).	(a) To prevent JAPANESE penetration southward through the RAMU and MARKHAM VALLEYS. (b) To protect Allied Air Force installations in the area BENA BENA-GARORA.
3	9 Aust Div	FINSCHHAFEN - LAE	(a) To defend FINSCHHAFEN. (b) To gain control of the east coast of the HUON PENINSULA up to and include SIO. (c) To develop a Base Sub Area at FINSCHHAFEN.
4	11 Aust Div	BUNA	To defend the north east coast of NEW GUINEA from inclusive ORO BAY to exclusive MARKHAM VALLEY.

4. The following is a summary of the role of 2 Aust Corps as at 8 Oct 43 :-

(a) FINSCHHAFEN - HUON PENINSULA

(i) To establish in FINSCHHAFEN area by 1 Dec 43 advanced operational air base facilities for staging one group of fighters and two squadrons of light bombardment planes. Provision to be made for Allied Naval Forces to establish facilities for light naval forces in the VITIAZ STRAITS area.

(ii) Construction and location of facilities to be effected with a view to subsequent development of FINSCHHAFEN as a major Army, Navy and Air Base.

(iii) Consolidation of the HUON PENINSULA to be affected by infiltration up the coast by operations so conducted as to avoid commitment of an amphibious force beyond that of the boat battalion under command, exploitation beyond SIO village not to be undertaken without reference to NEW GUINEA Force.

(b) MARKHAM RIVER VALLEY - RAMU VALLEY

(i) To protect established airfields at KAIAPIT and DUMPU from land attack in order to prevent interruption of air operations from these airfields.

(ii) Operations to the north of DUMPU to be so conducted as to avoid a logistic commitment outside the resources of 2 Aust Corps. Operations against WAU-MG to be restricted to patrol activities until further orders given by NEW GUINEA Force.

5. 2 Aust Corps Operation Order 2 of 29 Oct, attached as appendix "A", defined the area of responsibility and roles of 2 Aust Corps, and allotted tasks to formations under command.

6. At 0900 hours 6 Nov 7 Aust Div came under direct command of NEW GUINEA Force and 2 Aust Corps was freed of responsibility for operations in the RAMU VALLEY. This change was made to permit 2 Aust Corps to concentrate on the operations of 9 Aust Div and ensure the early removal of the enemy threat to the FINSCHHAFEN Base and the clearance of the JAPANESE from the HUON PENINSULA.

7. On 7 Nov 43 Maj-Gen F H BERRYMAN, CBE, DSO, was appointed to command 2 Aust Corps consequent on the appointment of Lt-Gen Sir Leslie MORSHEAD, KCB, KBE, CMG, DSO, ED, to command NEW GUINEA Force.

8. NEW GUINEA Force Operation Instruction 107 dated 27 Dec 43 gave 2 Aust Corps area as the HUON PENINSULA, and MARKHAM RIVER valley to inclusive ERAP RIVER. The role allotted 2 Aust Corps was active patrolling and vigorous infiltration in the defence of the Corps Area and exploitation along the coast, major forces not to be committed. Orders implementing this instruction are contained in 2 Aust Corps Operation Order 3 of 30 Dec attached as Appendix "B".

9. At 2400 hours 28 Dec 11 Aust Div reverted to command NEW GUINEA Force. 2 Aust Corps now consisted of two divisions, 5 Aust Div in the LAE area and 9 Aust Div in the HUON PENINSULA area.

10. On 29 Dec information was received that 8 Aust Inf Bde was being moved from AUSTRALIA to FINSCHHAFEN to relieve one Brigade Group of 9 Aust Div which was to be back loaded to AUSTRALIA.

11. On 15 Jan, with the occupation of SIO, the main tasks allotted 9 Aust Div were completed. It was now known that the whole of 9 Aust Div was to be returned to AUSTRALIA.

12. HQ 5 Aust Div and 8 Aust Inf Bde were moved forward and assumed responsibility for operations forward of SIO on 20 Jan, with orders to make contact with US forces at SAIDOR.

13. On 26 Feb NEW GUINEA Force advised that 532 B and S Regt 2 ESB was to be withdrawn from our command approximately 1 Mar. As a result our final dispositions had to be adopted earlier than was intended. 5 Aust Div was ordered to concentrate in HELLNOA and thence withdraw to the KILIGIA area.

SECTION 4.

OPERATIONS - 9 AUST DIV

Phase 1 - Japanese Counter Offensive.

General.

1. On the assumption of command by HQ 2 Aust Corps on 8 Oct 43, FINSCHHAFEN itself had been captured and 9 Aust Div was disposed in the LAE area, with one Brigade (20 Aust Inf Bde) in the FINSCHHAFEN area in close contact with enemy forces. The situation in regard to 20 Aust Inf Bde was that 2/15 Aust Inf Bn and 2/17 Aust Inf Bn were in the areas KUMAWA and JIVEVANENG respectively, both opposed by strong enemy forces in well prepared positions. 2/43 Aust Inf Bn, a force somewhat inadequate for the task, was protecting the SCARLET BEACH area. 2/13 Aust Inf Bn was still south in the SIBSANG area.

2. Whilst operations by 20 Aust Inf Bde were in progress, the enemy withdrew his forces south of the BUMI and MAPE RIVERS, via the inland route through GURUNKOR to SATELBERG. At the same time, enemy reinforcements were moving down the coast, by sea and overland, into the WAREO-SATELBERG area. On 8 Oct the enemy forces in this area totalled approximately 4300, including 80 Inf Regt (less one battalion not yet reformed) and remnants of the FINSCHHAFEN garrison. 79 Inf Regt Gp was expected to arrive in the FINSCHHAFEN area by 8 Oct but was delayed for four days because of the difficulty of transporting stores and equipment over the existing tracks. It is considered that the enemy's intention at this stage was to hold the ground WAREO-SATELBERG, at the same time ascertaining the strength and dispositions of our forces with a view to carrying out a major attack, by 79 Inf Regt, against SCARLET BEACH and FINSCHHAFEN.

Outline Summary.

3. During the earlier part of the phase, our troops were regrouping and preparing for the attack on SATELBERG, at the same time repulsing minor attacks in the SCARLET BEACH, JIVEVANENG and KUMAWA areas. When it became evident, from many sources, that a strong enemy attack against our troops in the SCARLET BEACH area was intended, preparations for the attack on SATELBERG were suspended temporarily and action was taken to meet this threat.

4. On 17 Oct the main enemy land attacks were commenced against our troops in the SCARLET BEACH area. This series of attack began with a well organised attack, probably by a regiment, and gradually dwindled to unco-ordinated sub-unit attacks on subsequent days. The enemy suffered heavy casualties throughout and after 25 Oct was gradually forced on to the defensive. During the period 22 - 25 Oct, the enemy launched approximately thirty attacks against our position west of KATIKA

The intensity of our artillery and mortar fire supplemented by infantry small arms, proved too costly for him. His air support for this offensive was spasmodic and on a very minor scale. The limited air support given represented only a fraction of the air striking power available from bases at MADANG, ALEXISHAFEN and WEWAK plus an airfield at CAPE GLOUCESTER. His policy at this stage, and in succeeding months, appeared to be to conserve his air power as much as possible. At no stage did enemy naval forces interfere with our operations, the only shipping seen forward of MADANG being barge and submarine traffic. He had approximately 150 barges employed between MADANG and FINSCHHAFEN mainly for bringing down supplies, reinforcements and for evacuation of wounded. On one occasion only, on 17 Oct, when three barges landed at SCARLET BEACH, did he employ barges as assault landing craft.

5. Map 1 attached shows dispositions of 9 Aust Div in the FINSCHHAFEN area and approximate enemy locations and strengths as at 8 Oct. Map 2 shows similar information as at 16 Oct, by which date both enemy and our forces had considerably reinforced the area.

Daily Summary.

9 Oct.

6. In the JIVEVANENG area B Company supported by A Company 2/17 Aust Inf Bn carried out a right outflanking move and captured the PIMPLE, a dominating knoll in the rear of the enemy posts 400 yards west of JIVEVANENG village. These enemy posts were mopped up later in the day. Four determined and sustained counter-attacks supported by mortars were launched against B Company, but all were repulsed with heavy enemy casualties. The remainder of 2/15 Aust Inf Bn arrived at KUMAWA.

7. During the morning nine BOSTONS and twelve VULTEE VENGEANCES attacked enemy defensive positions in the vicinity of SISI and SATELBERG. Buildings were destroyed, and possible ammunition dumps blown up.

10 Oct.

8. West of JIVEVANENG a further JAP attack from the north supported by one 75 mm gun, was driven off by B Company 2/17 Aust Inf Bn with heavy enemy losses. 2/3 Aust Pnr Bn took over responsibility for the close defence of SCARLET BEACH and the KATIKA track. In the FINSCHHAFEN sector patrols from 2/13 Aust Inf Bn made contact with enemy at TIRIMORO and along the MAPE River 2000 yards west of SIMBANG.

9. Eleven VULTEE VENGEANCES and nine BOSTONS attacked targets in support of 20 Aust Inf Bde. The bombing and strafing were reported by ground troops as accurate.

11 Oct.

10. Adv HQ 9 Aust Div opened at 1200 hours on the north shore of LANGEMAK BAY, and relieved 20 Aust Inf Bde of responsibility for maintenance in this area.

11. Main HQ 24 Aust Inf Bde completed its move to the FINSCHHAFEN area and assumed command of 2/43 Aust Inf Bn and 2/3 Aust Pnr Bn with 24 Aust Fd Bty, C Coy 2/2 Aust MG Bn, and one platoon C Coy PIB in support. The tasks allotted to the Brigade were the protection of the area NORTH HILL - SCARLET BEACH - inclusive road JIVEVANENG - HEILDSBACH and the gaining of control of the track junctions vicinity BONGA preparatory to the capture of WAREO.

12. In the 20 Aust Inf Bde sector 2/17 Aust Inf Bn completed its move to the JIVEVANENG area, and occupied a position on the SATELBERG track from inclusive the " PIMPLE " to inclusive the feature 400 yards east of JIVEVANENG village. 2/15 Aust Inf Bn remained at KUMAWA and 2/13 Aust Inf Bn remained in the FINSCHHAFEN area maintaining contact with enemy near TIRIMORO and along the MAPE river.

12 Oct.

13. Activity in all sectors was limited to patrolling and the regrouping of units.

14. During the night 12/13 Oct PT boats patrolling as far north as ROOKE ISLAND, sank one enemy ketch and damaged another at NORTHWEST anchorage on TUAM ISLAND. The beaches at GIZARUM XL8978 were strafed and six to eight barges damaged. (Reference strat map).

13 Oct

15. D coy 2/13 Aust Inf Bn occupied TIRIMORO at 0800 hours. On the same date A Coy 2/15 Aust Inf Bn attacked and captured the high ground west of KUMAWA, killing 25 enemy. The gaining of this ground caused the enemy to break contact and thereafter enemy activity in this area was limited to small patrols.

14 Oct.

16. Information was received from various sources that the enemy contemplated an attack, scheduled for 16 Oct, against our positions from ARNDT POINT to JIVEVANENG. As a result of this information GHQ ordered CTF 76 to be prepared to move 26 Aust Inf Bde Gp from LAE to FINSCHHAFEN at 30 hours notice. Indications were that any land attack would be accompanied by a seaborne attack probably in the ARNDT POINT or LANGEMAK BAY area. To combat such an eventuality additional air recce was ordered by 5 AF and six destroyers were sent into the VITIAZ STRAITS on patrol. Nightly coastal patrols were also carried out by our PT boats from LANGEMAK BAY to the north.

17. During the night 13/14 Oct 2/28 Aust Inf Bn less two companies was landed at SCARLET BEACH.

15 Oct.

18. Active patrolling and artillery harassing fire by our troops were continued - patrols of 2/3 Aust Pnr Bn contacted enemy but failed to gain touch with flanking sub-units and thus enemy infiltrated past the three forward companies of 2/3 Aust Pnr Bn. During night 14/15 Oct the remainder of 2/28 Aust Inf Bn landed at SCARLET BEACH and the whole unit came under command 24 Aust Inf Bde, 2/32 Aust Inf Bn also arrived and came into divisional reserve.

19. A translation of an Operation Order signed by Lieut General KATIGIRI 20 Division and dated 12 Oct at SATELBERG, disclosed that 79 and 80 Regts were to attack and capture ARNDT POINT area including SCARLET BEACH concurrently with an attack south from BONGA. This attack was to be accompanied by a landing in the ARNDT POINT area.

20. GOC 9 Aust Div had foreseen the probability of such an enemy move and orders were issued for the defence of FINSCHHAFEN. The vital ground to be held at all costs

included the track junctions near BONGA, NORTH HILL, the high ground approximately two miles west of SCARLET BEACH between River SONG and SATELBERG track near JIVEVANENG, KUMAWA, TIRIMORO, BUTAWENG, LOGAWENG and 532 Regt ESB base and harbour areas at DREGER HARBOUR. Commander 24 Aust Inf Bde was warned of the impending enemy attack and 24 Aust Inf Bde was allotted the additional task of defending the FINSCHHAFEN airfield and made responsible for coast watching and coast defence to inclusive QUOJA RIVER.

21. A force of sixty-three MITCHELLS and six MARAUDERS attacked dump areas along the enemy L of C at SIO and PESCHEL POINT. The mission at SIO and a number of huts were destroyed and fires started.

16 Oct.

22. Three enemy attacks were made against 2/17 Aust Inf Bn in the JIVEVANENG area, all of which were repulsed. Fighting continued in this area all day, but by nightfall enemy attacks had petered out, though elements were believed to be still in the area.

23. Twelve MITCHELLS attacked coastal villages from REISS POINT to NAMBARIWA destroying many huts. Two barges were destroyed at SIO.

17 Oct.

24. The night 16/17 Oct was quiet until 0300 hours when a heavy bombing raid began on FINSCHHAFEN area, continuing for an hour but causing no damage.

25. At 0350 hours an observation post of 2/43 Aust Inf Bn reported three enemy barges moving south past BONGA. At 0415 hours three 36 foot barges landed at the north end of SCARLET BEACH. The landing was a complete failure, as the enemy were engaged by 2/28 Aust Inf Bn with MGs and Bofors from the beach, resulting in two of the barges being sunk, and the other driven off to the north. Thirty-six enemy who effected a landing and moved to the north of the SONG RIVER were destroyed next day on the coastal flat by B Coy 2/43 Aust Inf Bn. Enemy documents captured from this landing party disclosed the enemy's intentions to attack west down the KATIKA TRACK and then fan out north to the area SONG RIVER - SCARLET BEACH and south towards HEILDSBACH.

26. Later in the morning the main enemy land attack began, 79 Regt and 80 Regt attacking from the direction of WAREO and PALANKO towards the east and southeast and succeeding in reaching a line some 3000 yards west of SCARLET BEACH.

27. During the afternoon the enemy attack was continued from the northwest towards KATIKA and 24 Aust Inf Bde was forced back to a narrow strip immediately covering SCARLET BEACH, but with 2/28 Aust Inf Bn still holding KATIKA. HQ 2/3 Aust Pnr Bn had been heavily attacked during the morning and was forced to withdraw into the 2/28 Aust Inf Bn perimeter at KATIKA. The three forward companies of this battalion were on the high ground further west without communications and cut off from the rest of the Brigade.

28. It was felt that if the enemy was in a position to mount a further attack we might be forced to withdraw from the northern sector and, as SCARLET BEACH was vital to us for resupply, it was essential that the existing

situation be improved. Accordingly GOC 9 Aust Div requested that 26 Aust Inf Bde be sent forward immediately, as the whole of his available forces were committed in the northern sector, leaving no reserve with which to protect FINSCHHAFEN and LANGEMAK BAY should the enemy attempt a further landing in that area.

29. 24 Aust Inf Bde was relieved of responsibility for defence of the FINSCHHAFEN AIRFIELD and by 1630 hours B Coy 2/28 Aust Inf Bn, which had been occupying defensive positions near the strip, rejoined the battalion in the KATIKA area.

30. Between 1500 hours and 1555 hours nine MITCHELLS and nine BOSTONS accurately bombed and strafed enemy defences at SATELBERG in support of 2/17 Aust Inf Bn.

18 Oct.

31. At 1020 hours, ten minutes before 2/28 Aust Inf Bn was to launch a two company attack to restore the situation in the 2/3 Aust Pnr Bn area, the enemy launched a strong attack on 2/28 Aust Inf Bn west of KATIKA. The attack continued until 1240 hours and the enemy was repulsed with heavy casualties. Strong probing attacks against B and D Coys of 2/43 Aust Inf Bn, which had been withdrawn during the night from GUSIKA - PIMO HILL area to Brigade reserve on the right flank of 2/28 Aust Inf Bn, were likewise unsuccessful. Enemy parties moving past the left flank of 2/28 Aust Inf Bn crossed SIKI CREEK but were stopped on open kunai spurs by direct artillery fire. However, during the afternoon, enemy elements penetrated down the SIKI CREEK to the coast at SIKI COVE, thereby cutting off 24 Aust Inf Bde from the south. 2/28 Aust Inf Bn was finally withdrawn to a tight perimeter covering SCARLET BEACH linking up with B and D Coys 2/43 Aust Inf Bn on the right.

32. 2/13 Aust Inf Bn less two companies moved to the SIKI CREEK area and took up positions east and west of the coastal track south of the creek in order to prevent any further enemy penetration southwards, which would endanger the gun areas in HEIDSBACH PLANTATION and the L of C to 20 Aust Inf Bde units on the SATELBERG track. During the night casualties were inflicted on enemy parties attempting to infiltrate to the south.

33. In the JIVEVANENG area during the night 17/18 Oct the enemy established a position astride the main track 500 yards east of the village, between 2/17 Aust Inf Bn and D Coy 2/3 Aust Pnr Bn.

34. GHQ issued orders for the immediate move of 26 Aust Inf Bde to FINSCHHAFEN and, on the same date, GOC 2 Aust Corps ordered forward C Squadron 1 Aust Tk Bn and 2/11 Aust Fd Amb.

19 Oct.

35. Considerable enemy movement was heard during the night 18/19 Oct, but the enemy was inactive during the morning, which allowed the beach defences in the SCARLET BEACH area to be re-organised unhindered. D Coy 2/3 Aust Pnr Bn moved to a position on the SATELBERG track east of JIVEVANENG leaving two companies still forward and isolated. Patrols from 24 Aust Inf Bde attempted without success to contact 20 Aust Inf Bde troops operating south of SIKI CREEK.

36. In order to clear the enemy from SIKI COVE, it was decided that it was necessary to recapture the high ground astride the track 200 yards west of KATIKA. During the late afternoon A and B Coys 2/28 Aust Inf Bn secured the feature against slight opposition, and dug in, in good positions on the spur thus almost completely enclosing the enemy pocket between KATIKA and the sea.

22 Oct.

37. 26 Aust Inf Bde, 2/11 Aust Fd Amb and C Sqn 1 Aust Tk Bn disembarked at LANGEMAK BAY between 0300 hours and 0400 hours. The arrival of these troops relieved the situation as 9 Aust Div had now an adequate reserve and the position in the area FINSCHHAFEN - LANGEMAK BAY was strengthened.

38. Due to stubborn enemy resistance, one Coy 2/28 Aust Inf Bn was unsuccessful in an attempt to eject the enemy from SIKI COVE and contact 2/13 Aust Inf Bn. However, a fighting patrol from this battalion, moving south through our positions west of KATIKA, contacted 2/13 Aust Inf Bn which, during the day, had inflicted casualties on the enemy moving along the north bank of the SIKI CREEK. Line was laid, thus re-establishing line communication to HQ 9 Aust Div.

39. Tactical reconnaissance aircraft dropped ammunition, rations and messages containing orders to withdraw, on the isolated Coys of 2/3 Aust Pnr Bn.

21 Oct.

40. Aggressive patrolling by our troops took place on all sectors, and the isolated Coys of 2/3 Aust Pnr Bn returned to within the 24 Aust Inf Bde perimeter. B Coy 2/32 Aust Inf Bn arrived at SCARLET BEACH and came under command 2/28 Aust Inf Bn. During the afternoon this company occupied a position between the SCARLET BEACH perimeter and the left flank of the forward companies of 2/28 Aust Inf Bn.

41. Throughout the day the enemy was heavily pounded by artillery and mortars and continuously harassed from north and south by machine gun and rifle fire, with the result that, during the night 21/22 Oct, he evacuated his positions from the mouth of the SIKI CREEK to inclusive KATIKA.

42. Between 1120 and 1150 hours sixty-one LIBERATORS bombed enemy supply and defensive positions at SATELBERG and WAREO. Both villages and the immediate areas were covered by heavy bombs and the villages reported demolished. Two hours later nineteen MITCHELLS bombed and strafed the same targets. These aircraft reported that both SATELBERG and WAREO areas had been left devastated by the heavy bombers. In all, 230 tons of bombs were dropped.

22 Oct.

43. 2/28 Aust Inf Bn mopped up the area SIKI COVE - KATIKA and the enemy withdrew from close contact west of SCARLET BEACH thus enabling 24 Aust Inf Bde to extend the SCARLET BEACH perimeter.

44. The boundary between 24 Aust Inf Bde and 26 Aust Inf Bde was made SIKI CREEK exclusive to 26 Aust Inf Bde. The balance of 2/32 Aust Inf Bn arrived at SCARLET BEACH and 2/3 Aust Pnr Bn less one company was withdrawn to the FINSCHHAFEN airfield. 2/13 Aust Inf Bn less two

companies relieved D Coy 2/3 Aust Pnr Bn on SATELBERG track and established contact with enemy east of 2/17 Aust Inf Bn at JIVEVANENG.

45. At 1945 hours the enemy made a heavy attack eastwards astride the KATIKA track against 2/28 Aust Inf Bn positions on the KATIKA spur but was driven back after suffering heavy casualties. During the period of attacks the enemy positions west of KATIKA were constantly shelled and mortared.

46. Nine MITCHELLS bombed MASANGKOO village and the track 1000 yards west, and ten MITCHELLS bombed enemy barge and supply areas near LAKONA village and at the mouth of the MASAWENG RIVER. Bombing on both targets was reported accurate with a probable ammunition dump being hit at the mouth of the MASAWENG RIVER.

23 Oct.

47. During the day adjustments were made to our positions in the SCARLET BEACH area. 2/32 Aust Inf Bn relieved 2/28 Aust Inf Bn on the spur west of KATIKA and C Coy 2/43 Aust Inf Bn rejoined its battalion in NORTH HILL area after being relieved on the SATELBERG track by troops of 20 Aust Inf Bde.

48. Beginning at 1800 hours and continuing throughout the night, attacks were launched against 2/32 Aust Inf Bn astride the KATIKA track, but all were repulsed with heavy casualties.

49. During the day Lt-Gen MORSHEAD discussed future operations with GOC 9 Aust Div at FINSCHHAFEN. It was decided that an additional infantry brigade was required in the area before 9 Aust Div could assume the offensive. This decision was approved by NEW GUINEA Force and 4 Aust Inf Bde (less 22 Aust Inf Bn which had been moved to FINSCHHAFEN overland from LAE) was moved from LAE in small craft. This move began on 30 Oct and was completed by 8 Nov, 4 Aust Inf Bde taking over the defences in the area FINSCHHAFEN - LANGEMAK BAY - DREGER HARBOUR.

50. On the same day, the first US unit, 808 Engineer Bn, landed at LANGEMAK BAY, and from this date there was a constant stream of American units, vehicles, and stores into the DREGER HARBOUR area for airfield construction work. The task was to build airfield accommodation for one group of fighters (approximately 100 aircraft) to be based there, and also staging areas for one group of fighters and one group of medium bomber aircraft, this work to be completed not later than 1 Dec. The main object of the strip was to enable our aircraft to provide continuous fighter cover over the VITIAZ STRAITS with the ultimate plan of supporting landing operations in western NEW BRITAIN. The increased range the strip provided also enabled our fighters to increase their time over targets such as WEWAK and RABAUL and the early interception of enemy air forces attempting to reach our main bases at DOBODURA and NADZAB.

51. At night PT boats attacked four enemy barges off NANDA and in face of fire from the barges and a shore battery, destroyed two of them.

24 Oct.

52. The enemy continually attacked from the west and northwest in the KATIKA ridge area both during 24 Oct and night 24/25 Oct. During the night he positioned

a 75 mm gun about 75 yards forward of our forward defended localities, but this was destroyed by one of our 2 pounders brought forward for the task.

25 Oct.

53. 2/32 Aust Inf Bn was in close contact with the enemy west of KATIKA, and in other sectors patrolling was continued. During the night 25/26 Oct the enemy evacuated the position north and south of the KATIKA track to the higher ground to the northwest.

54. Information had been received that an enemy regiment was arriving at BONGA on 25 Oct to attack from the north towards the SONG RIVER, but apart from a patrol clash in the coastal area east of NORTH HILL, the attack did not eventuate.

55. During an air raid on HQ 9 Aust Div on the night 25/26 Oct, Brig GOODWIN, CRA 9 Aust Div, was killed.

56. Attacks were carried out by nine BOSTONS against enemy defensive positions and suspected supply dumps between KILIGIA and LAKONA, and at the mouth of the MASAWENG RIVER.

57. Whilst on a coastal patrol to SIO during the night, our PT boats reported that signal lights followed the movement of the craft along the coast which indicated that the enemy had established a coast-watching system. Beach lights observed appeared to be used for leading enemy barges into off loading points.

58. Casualties.
During this phase casualties were as under :-

(a) Enemy : Killed : 648. (approximately)

(b) Own

	KIA		WIA		MIA		TOTAL	
	Offrs	OR	Offrs	OR	Offrs	OR	Offrs	OR
	5	90	8	227	-	1	13	318

Phase 2 - Preparations for the Offensive.

General.

1. At this stage it had been appreciated that the vital ground in the area was the SATELBERG feature and the ridge GUSIKA - WAREO. Possession of these features would deny the enemy observation of the coastline as far south as DREGER HARBOUR, and would also control a number of important tracks - notably the inland track from KALASA, the track from the rich HUBE district centred on JOANGENG and KULUNGTUFU, and several routes down to the coast at GUSIKA, KILIGIA, and LAKONA. From WAREO also radiated tracks to SATELBERG, PALANKO and NONGORA - all of them supply routes for enemy forces in these localities and also lines of approach to our forces in the SCARLET BEACH and FINSCHHAFEN areas. The capture of the GUSIKA - WAREO line would therefore both secure the FINSCHHAFEN area and provide the ground from which an offensive could be launched to drive the enemy from the HUON PENINSULA. While the enemy held SATELBERG however, the left flank of any drive northward along the coast towards GUSIKA would be open to attack. 9 Aust Div therefore envisaged two preliminary moves before the advance on WAREO, firstly the capture of SATELBERG, and secondly, the gaining of control of the track junction

in the BONGA area to cut the enemy supply line to the coast and open the WAREO feature to attack from the east.

2. On 25 Oct Maj-Gen F. H. BERRYMAN then DCGS arrived at HQ 9 Aust Div near SIMBANG and discussed the position with GOC 9 Aust Div. At this stage the immediate tasks of 9 Aust Div were:-

(a) To arrange for the defence of FINSCHHAFEN and LANGEMAK BAY,

(b) to straighten the forward defensive localities and eliminate enemy forces astride the SATELBERG track between 2/17 Aust Inf Bn and 2/13 Aust Inf Bn,

(c) to regroup in preparation for the offensive.

3. To carry out these tasks it was re-affirmed that the SATELBERG feature and the ridge GUSIKA - WAREO, should be secured and that pressure should be maintained on the enemy so that we could retain the initiative.

Outline Summary.

4. The defeat of the enemy counter offensive enabled us to resume preparations and planning for the capture of SATELBERG with a view to subsequent advance to GUSIKA - WAREO line. Accordingly, until 17 Nov when the attack on SATELBERG began, 9 Aust Div was engaged in reorganising its positions and building up supplies in preparation for the offensive. A period of active and aggressive patrolling was carried out over the whole front. Forward enemy positions were located in detail, his patrols ambushed and sniped, and he was continually harassed by artillery concentrations and by air bombing and strafing.

5. Despite communication difficulties, reserve supplies in the forward areas were built up to 20 days for 500 personnel in the KUMAWA area, and 20 days for 1000 personnel in the SATELBERG area. The number of native carriers allotted to 26 Aust Inf Bde was increased to 600 - a number sufficient to carry for the whole Brigade on a one-day turn round. Divisional Engineers were engaged in building and improving roads in the FINSCHHAFEN - SCARLET BEACH area, and in maintaining the tracks to KUMAWA and JIVEVANENG. The supply system by small craft from LAE was improved by the introduction of a regular system of LCTs and LSTs.

6. A close study of enemy supply routes was made, and intensified PT boat activity against barges and submarines operating between KIARI and BONGA was instituted. It was known that NAMBARIWA, where submarines from NEW BRITAIN and barges from MADANG discharged their cargo, was his main forward base. From this point supplies and troops proceeded south along the coast in barges to staging points at SIALUM, KANOMI, WALINGAI, WANDOKAI and LAKONA or overland to a very limited degree, via the inland track KALASA - WAREO. All located staging dump areas and tracks on his L of C were bombed and strafed.

7. An air attack plan was submitted to, and approved by 5 AF, designed to disrupt the enemy L of C to the maximum extent starting on D-5 and continuing until D day. Unfortunately weather and unforeseen commitments prevented the plan being put into effect in its entirety, and the programme was compressed into two days.

8. During this period, and in subsequent phases of the campaign, GOC 2 Aust Corps stressed the importance of field artillery as a battle winning weapon. In order to ensure that artillery played a predominant part in the FINSCHHAFEN operations, action was taken to expe[dite] the move forward of an additional field regiment (2/6 Aust Fd Regt). A request that more 155 mm guns be sent forward to support land operations was refused as it was considered that 25 pounders were more suitable for the task because they presented less difficulties in regard to movement and ammunition supply.

9. For the first time during this operation it was intended to use MATILDA tanks in support of the infantry. Considerable precautions were taken to ensure that the presence of the tanks in the area was not known to the enemy. This was achieved, as the use of tanks came as a complete surprise to the enemy, who had no effective counter at hand.

Daily Summary.

26 Oct.

10. Both 24 and 26 Aust Inf Bdes pushed their forward defensive localities further west to ground well suited to defence, giving a depth of more than 1200 yards, from KATIKA and SCARLET BEACH. The construction of a solid defence line in depth was commenced and standing patrols were established on all likely approac[hes].

27 Oct.

11. Movement in all sectors was confined to patrol activit[y]: there were several minor patrol clashes, and casualt[ies] were inflicted on the enemy. These fighting patrols went out each day on the whole front with orders to locate and attack the retreating enemy. The enemy was to be prevented digging in and constantly harried, particularly with artillery and mortars. For this purpose forward observation officers were attached to each patrol with communications by assault cable and wireless to the guns.

28 Oct.

12. Pressure was maintained on enemy positions in the JIVEVANENG area by 2/13 Aust Inf Bn and 2/17 Aust Inf Bn, one platoon of 2/13 Aust Inf Bn advancing to within 15 yards of forward enemy positions. 2/13 Aust Inf Bn had moved up the SATELBERG track to assist in liquidating the strong enemy pocket astride the track in order to reopen the main L of C to 2/17 Aust Inf Bn at JIVEVANENG.

13. Four THUNDERBOLTS carried out a sweep along the RAI coast, strafed SIO mission, and huts at SIALUM ISLAND starting many fires. Two barges were destroyed on the beach near KANOMI.

14. During the night two PT boats attacked two enemy barges off BLUCHER POINT. Both were damaged and one probably sunk. Fire from 3 inch and 20 mm guns on the shore was encountered.

29 Oct.

15. By vigorous patrolling and the use of fire power the enemy had now been forced from the whole area held by 9 Aust Div before the enemy counter attacks commenced, with the exception of the enemy pocket, approximately one company in strength, astride the track some 500 yards east of JIVEVAHENG. The elimination of this pocket was an essential preliminary to the inter brigade relief and the building up of reserve dumps at JIVEVAHENG in preparation for the capture of SATELBERG. The enemy in this position was by now well dug in and had withstood almost continuous hammering by artillery and mortars since 18 Oct. Pressure was maintained against this pocket, 2/13 Aust Inf Bn pushing forward and digging in on the north side of the road, and elements of 2/17 Aust Inf Bn occupying a position on the south side of the road 600 yards east of JIVEVAHENG village with the object of preventing the enemy sniping at our parties carrying supplies along the TAREKO track to 2/17 Aust Inf Bn.

16. PT boats harassed enemy barge traffic as far west as IEPSIUS POINT. On night 29/30 Oct enemy shore batteries from vicinity VINCKE POINT engaged our PT boats to a range of four miles.

30 Oct.

17. 20 Aust Inf Bde continued to maintain pressure against the enemy pocket east of JIVEVAHENG with 2/17 Aust Inf Bn from the west and 2/13 Aust Inf Bn from the east. During the day the latter battalion captured two posts, subsequently repulsing two counter attacks.

18. Adverse weather conditions prevented the attack by twelve VULTEE VENGEANCE dive bombers on gun positions between SIO and VINCKE POINT, six aircraft jettisoning their bombs on SATELBERG with unobserved results.

31 Oct.

19. During the morning an attack by approximately one company of enemy against 2/13 Aust Inf Bn was repulsed with casualties. The enemy was reported to be holding the track from WAREO to FIOR in strength.

1 Nov.

20. Both 2/13 Aust Inf Bn and 2/17 Aust Inf Bn were in close contact with the enemy pocket east of JIVEVAHENG. Action on other fronts was confined to patrols.

21. During the night PT boats sank two barges and damaged another off WALHGAI and shelled the shore battery at BLUCHER POINT.

2 Nov.

22. In the JIVEVAHENG area 2/13 Aust Inf Bn carried out a demonstration whilst 2/17 Aust Inf Bn pushed down the road and, after fighting throughout the day, made some progress against heavy opposition. Patrols on other fronts did not make contact except on the 2600 and 2500 yards west of KATIKA, where a strong enemy position was located. 26 Aust Inf Bde received orders to relieve 20 Aust Inf Bde in the JIVEVAHENG - KUMAWA area.

23. The air offensive directed against the enemy L of C was continued and during the afternoon twelve VULTEE VENGEANCES

successfully dive-bombed MAIBARIWA village, and supply dumps. Nine BOSTONS bombed and strafféd troop concentrations and suspected dump areas along the BONGA-WAREO track.

24. During the night PT boats sank two barges three miles north of BLUCHER POINT.

3 Nov.

25. Patrols from 2/13 Aust Inf Bn found that the enemy had withdrawn during the night from his positions astride the main road east of JIVEVANENG. These patrols made contact with 2/17 Aust Inf Bn thus reopening the SATELBERG track. 2/13 Aust Inf Bn made contact with the enemy withdrawing north towards the 2600 feature and 2/17 Aust Inf Bn attacked enemy still in position in the vicinity of JIVEVANENG, driving them off the high ground. The enemy counter attacked but was driven off, at least twenty being killed.

26. 4 Aust Inf Bde completed its move from LAE and was made responsible for the seaward and landward protection of the area FINSCHHAFEN - LANGEMAK BAY.

27. During the night five barges loaded with stores moving southeast down the coast were sunk off KELANOA by PT boats.

4 Nov.

28. Patrols from 24 Aust Inf Bde operating westward from SCARLET BEACH perimeter reported no contact, but patrols to the north located enemy in the coconuts at BONGA and on PINO HILL. During the day patrols from 2/43 Aust Inf Bn located positions east of the coastal track three miles south of BONGA, and reported considerable movement in both directions along the BONGA - WAREO track. During the night 4/5 Nov, the enemy withdrew from his positions 300 yards northwest of JIVEVANENG where he had been driven by 2/17 Aust Inf Bn the previous day.

5 Nov.

29. 26 Aust Inf Bde commenced the relief of 20 Aust Inf Bde; in the JIVEVANENG area 2/24 Aust Inf Bn relieved 2/17 Aust Inf Bn which returned to the HELDSBACH PLANTATION area. 2/15 Aust Inf Bn commenced relieving 2/48 Aust Inf Bn in the KATIKA - HELDSBACH area, the relief being completed on 6 Nov. Patrols from 2/43 Aust Inf Bn reported that the enemy had withdrawn from the coastal area east of NORTH HILL.

30. At 2340 hours PT boats sighted two enemy type I submarines on the surface three miles north of BLUCHER POINT. (This type of submarine had previously been used for transporting supplies from RABAUL to LAE). Two of three torpedoes fired scored hits; but, although a large area of discoloured water was seen, no wreckage was observed.

6 Nov.

31. An observation post which had been established by a detachment from 2/43 Aust Inf Bn and PIB, beside the BONGA - WAREO track, reported enemy movement both ways along the track. It appeared that this track was being used by small parties carrying supplies and ammunition, brought down the coast by barge, inland to the troops in WAREO - SATELBERG area. 2/43 Aust Inf Bn moved into the JIVEVANENG area preparatory to passing through

2/24 Aust Inf Bn in order to become the forward battalion of the brigade.

7 Nov.

32. Intensive recce by infantry patrols and by artillery, tank and infantry officers were carried out on the whole 26 Aust Inf Bde front with the object of preventing enemy recce, locating his positions and determining routes of approach. Enemy movement along the BONGA - WAREO track continued.

33. During the night PT boats strafed and probably destroyed two barges on the beach near the mouth of the TEWAI RIVER.

8 Nov.

34. Active patrolling was continued in all sectors of the 9 Aust Div front. A platoon of 2/48 Aust Inf Bn, with heavy artillery and mortar support, attacked and occupied WHITE ROCK feature 700 yards west of JIVEVANENG, killing and wounding five.

9 Nov.

35. Nine MATILDA tanks which commenced to move from KEDAM on 7 Nov reached their assembly area in the thick bamboo just west of JIVEVANENG.

36. At 2255 hours four barges heavily loaded with stores moving southeast down the coast were sunk by PT boats off WALINGAI.

10 Nov.

37. Our patrols again probed the area extensively for enemy positions and our artillery was active. Adv HQ 9 Aust Div opened at LAUNCH JETTY.

38. At night two barges loaded with stores were sunk by PT boats off AGO and another unloading stores on the beach was destroyed. Later contact was made with an enemy submarine four miles south of TAMI ISLAND.

11 Nov.

39. Patrols were active on all fronts. In the village of SISI, about thirty JAPS were fired on by a patrol from 2/48 Aust Inf Bn.

40. GOC 2 Aust Corps visited FINSCHHAFEN area with Brig S H PORTER, who was to take over command of 24 Aust Inf Bde. The GOC stressed the necessity for planning to secure a position to cut the BONGA - WAREO track. He considered this to be the main enemy L of C and that the enemy reactions to such a move by us would reveal its importance.

41. During the night two barges loaded with troops and moving north were intercepted by PT boats one mile south of CAPE KING WILLIAM. The barges were destroyed, though some of the personnel escaped. This was the first sighting of barges carrying troops moving north.

12 Nov.

42. Minor patrol clashes occurred in various sectors and enemy positions were shelled.

43. GOC 2 Aust Corps discussed the plan of attack with Commander 26 Aust Inf Bde and studied the terrain over which the attack was to take place.

44. Brig S H PORTER assumed command of 24 Aust Inf Bde from the Acting Commander Lt-Col SIMPSON 2/17 Aust Inf Bn.

45. Barge off loading points and enemy supply bases at KIARI were accurately bombed by six MARAUDERS and eleven MITCHELLS and a barge carrying ammunition was sunk by PT boats off LEPSIUS POINT.

13 Nov.

46. Further enemy positions were located by 9 Aust Div patrols and subjected to artillery fire.

47. GOC 2 Aust Corps and GOC 9 Aust Div visited the front of 24 Aust Inf Bde. The Corps Commander impressed on the commander 24 Aust Inf Bde the importance of increasing his brigade reserve as he improved his forward defended localities.

14 Nov.

48. Commander 26 Aust Inf Bde informed GOC 2 Aust Corps that he was ready to begin the attack on SATELBERG but required forty-eight hours notice. The GOC directed that the attack be carried out as soon as possible and GOC 9 Aust Div fixed the date for the attack as 17 Nov, a day earlier than he originally contemplated.

49. GOC 2 Aust Corps visited medical installations in the SIMBANG area and arranged that action be taken to improve conditions and alleviate the atmosphere of depression existing there.

50. Two squadrons of MITCHELLS carried out an extensive search programme along the enemy L of C. Areas bombed included MAMBARIWA, HUZEN, MELAMOA, CAPE KING WILLIAM, SIALUM and KANOMI. Straffing passes were also made in these areas and north to WASU and KIARI and along the track ZAGAHEHI - WALINGAI.

51. PT boats sank four barges during the night, two off HARDENBERG POINT and one each off CAPE KING WILLIAM and REISS POINT. Off MELAMOA POINT the boats were subject to heavy fire from what was thought to be four three inch dual purpose guns. By now eleven gun stations had been located from VINCKE POINT to CAPE SIBIDA, which indicated that the enemy was making a serious attempt to counter the continuous and damaging attacks by PT boats on his coastwise barge traffic so vital for his supplies

15 Nov.

52. Patrol activity to locate enemy positions, and artillery preparations for the attack on SATELBERG continued. 2/48 Aust Inf Bn patrols reported that the enemy had concentrated on COCONUT RIDGE near

the main track and that GREEN RIDGE was occupied. At this stage efforts were made to penetrate the outpost screen across the front of 26 Aust Inf Bde sector in order to determine the main enemy defensive positions.

53. Although heavy fire was encountered from the shore PT boats sank two barges near CAPE KING WILLIAM. This shore gun had apparently been recently installed to protect the enemy barge staging point at SIALUM.

54. Casualties

Casualties during this phase were as under:

(a)	Enemy	Killed	PW	Total
	(Approx)	305	6	311

(b)	Own	KIA		WIA		MIA		Total	
		Offrs	OR	Offrs	OR	Offrs	OR	Offrs	OR
		1	31	2	135	-	1	3	167

Phase 3 - The Attack on SATELBERG and the PABU Operation

General

1. On 16 Nov GOC NEW GUINEA Force visited HQ 2 Aust Corps at DOBODURA and discussed the 9 Aust Div situation. Gen BLAMEY had written to GOC NEW GUINEA Force suggesting an advance northwards along the coast. GOC NEW GUINEA Force agreed with GOC 2 Aust Corps that, as a preliminary to this advance, it was essential to secure SATELBERG and ridge GUSIKA - WAREO, and so ensure the protection of FINSCHHAFEN. It was realised that, by threatening the enemy coastal supply line, a drive northwards along the coast might force the enemy to abandon the whole WAREO position. Consequently, it was considered imperative that this advance begin as soon as possible. At this stage 9 Aust Div was apprehensive of an attack on the coast in its rear if the advance progressed too far north without adequate seaward protection. In order to assist 9 Aust Div it was decided that the following would be moved forward to the FINSCHHAFEN area at the earliest date possible:-

(a) Reinforcements for 9 Aust Div.

(b) Additional natives to release 4 Aust Inf Bde for operations as portion of the brigade was employed in unloading ships and general labour duties in the FINSCHHAFEN area.

(c) An additional tank squadron to bring 2 Aust Corps tank strength up to that of a tank battalion less one squadron.

2. GOC 2 Aust Corps informed GOC NEW GUINEA Force that, once the main attack started, continuous pressure would be maintained and that he had impressed on his Commanders the necessity for making fullest use of the forty-eight 25 pounders which were available for the operation.

3. On 16 Nov, as a preliminary to the attack on SATELBERG, 2/48 Aust Inf Bn captured GREEN RIDGE and the junction SATELBERG track - KUMAWA - SISI track. On the same day 2/4 Aust Cav (Commando) Sqn relieved 2/23 Aust Inf Bn.

at KUMAWA thus releasing the battalion for the attack, and 2/24 Aust Inf Bn moved northwest securing a bridgehead over the SIKI RIVER in preparation for an attack on HILL 2600. At 0700 hours 17 Nov the main assault began with the three battalions supported by artillery medium machine guns and tanks. 2/48 Aust Inf Bn attacked from the GREEN RIDGE feature west along the SATELBERG track, 2/23 Aust Inf Bn from KUMAWA north towards SISI and the STEEPLE TREE feature, and 2/24 Aust Inf Bn towards HILL 2600 and PALANKO. Tanks were employed with 2/48 Aust Inf Bn along the SATELBERG track and their use greatly assisted the infantry, and undoubtedly saved many casualties. Against strong opposition, the first phase, the capture of the STEEPLE TREE feature, was completed on 20 Nov. The attack then continued against lessening opposition and culminated in the capture of the SATELBERG feature on 25 Nov.

4. On 22 Nov, in an attempt to relieve the pressure on his SATELBERG garrison, the enemy launched a two pronged attack from the north and northwest against our positions north of the SONG RIVER. This attack was a complete failure and the enemy suffered heavily in men and equipment.

5. The PABU operation was carried out by 2/32 Aust Inf Bn less one company, which seized the feature on 19 Nov and held it against strong enemy counter attacks until 28 Nov when the situation was eased by the northern advance along the coast by 2/28 Aust Inf Bn. The operations achieved a dual purpose, which was to cut the enemy L of C along the track BONGA - WAREO at the vital stage during operations in the forward area, and to secure ground from which an attack could be developed against WAREO from the east. This operation also partly disorganised the enemy plan for the counter offensive launched on 22 Nov.

6. Throughout this phase our artillery engaged definite targets during daylight to assist the forward movement of the infantry, and by night harassing fire was employed on known enemy areas and areas of likely enemy movement. Consequently the enemy never felt completely secure either by day or night and this undoubtedly had considerable effect on his morale.

7. He was definitely short of food, being on one third rations only, and from the amount of equipment abandoned it was now apparent that his fighting quality had deteriorated, and that his ability to resist was dwindling. From this period onwards he was incapable of a large scale offensive and could only offer stubborn resistance to our further advance.

8. Map 3 attached shows forward dispositions of 9 Aust Div and enemy approximate locations and strengths as at 16 Nov 43 and map 4 shows diagrammatically the progress of operations in the SATELBERG - WAREO - BONGA areas from 16 Nov to 17 Dec 43.

Daily Summary.

16 Nov.

9. A and D Coys 2/48 Aust Inf Bn, with heavy artillery support, captured the eastern end of GREEN RIDGE, and, advancing along the spur, secured the SATELBERG track-SISI track junction. The enemy garrison was routed, and numerous weapons and much equipment captured.

10. 2/4 Aust Cav (Commando) Sqn came under command 26 Aust Inf Bde and relieved 2/23 Aust Inf Bn at KUMAWA thus releasing the whole battalion for the attack. 2/24 Aust Inf Bn moved northwest and secured a bridgehead over river SIKI in preparation for its attack on HILL 2600.

11. Early in the morning thirty-two MITCHELLS and nine MARAUDERS in support of ground troops attacked enemy supply dumps and bivouac areas along the supply routes at GUSIKA, FLOR, WAREO, MARAMENG RIVER, WALINGAI and KELANOA.

12. During the night PT boats on patrol observed considerable troop movement along the coastal track between SIALUM and WALINGAI and destroyed one barge on the beach at SIALUM.

17 Nov.

13. At 0700 hours, 26 Aust Inf Bde began the main attack. 2/48 Aust Inf Bn supported by tank and heavy artillery, machine gun and mortar fire advanced west along the SIALUM track against stiff opposition in very difficult country. The track ran along a narrow ridge covered in thick bamboo which made infantry movement difficult and the location of enemy positions a long and arduous task; nevertheless by last light the battalion had succeeded in securing a footing south of the track on COCONUT RIDGE. The tanks were confined to the track but were very effective against dug-in enemy positions. 2/25 Aust Inf Bn advanced according to plan: A coy on the right secured SISI and made contact with 2/48 Aust Inf Bn during the morning; C Coy on the left advanced about 200 yards but was held up by strong enemy defences on the slopes of the STEEPLE TREE feature.

14. An air strike in support of the attack was to have been carried out by thirteen squadrons of LIBERATORS and MITCHELLS, but owing to the weather only one squadron of dive-bombers, which dropped bombs in MASANGKOO village, was able to get through.

15. For the first time heavy shore fire succeeded in driving off our PT boats when they attempted to attack three barges off HARDENBERG POINT during the night.

18 Nov

16. SATELBERG Sector. By 1100 hours 2/48 Aust Inf Bn had secured COCONUT RIDGE, the first main enemy position covering the approach to SATELBERG and, with tanks in support, continued the attack against strong opposition along the SATELBERG track. By last light the situation was that 2/48 Aust Inf Bn was in a position about 1000 yards west of the SISI track junction, A and C Coys 2/23 Aust Inf Bn, advancing along the western track from KUMAWA, had reached a position near the MARARUO track junction south of STEEPLE TREE, and 2/24 Aust Inf Bn was in close contact with JAP forces on HILL 2600.

17. During the more recent attacks made by 79 and 80 Inf Regts men of 36 Arty Regt had been employed as infantry and were then reported to be without guns. It was now thought that they had at least one battery of six 75 mm guns in the area.

18. Central Sector. In 20 Aust Inf Bde sector C Coy 2/15 Aust Inf Bn occupied SARABOR and patrolled to the northwest to distract and disperse enemy forces.

19. Northern Sector. 24 Aust Inf Bde was ordered to begin preparations to secure the high ground at PABU, a timbered knoll astride GUSIKA - WARSO track and to control all tracks in the area as far west as the LAKES. For this purpose 2/32 Aust Inf Bn was freed from responsibility in the KATIKA area.

20. Between 0850 and 0915 hours twenty-four MITCHELLS and MARAUDERS supported the attack in the SATELBERG area with accurate bombing of suspected bivouac areas two miles northwest of SATELBERG.

19 Nov.

21. SATELBERG Sector. 2/48 Aust Inf Bn continued its advance astride the SATELBERG track. Progress was slow and extremely difficult as, on either side of the track, there was thick matted bamboo in which the enemy occupied deep foxholes with strong head cover, and it was easily possible for the opposing troops to be not more than a few yards apart, yet unable to reach or even see one another. The movement of the supporting tanks was delayed by three anti-tank ditches but, despite this, several hundred yards progress was made, one 75 mm, two 37 mm and several machine guns being knocked out. In the final assault, with two companies and tanks, on the strong enemy position on FOUGASSE CORNER an attempt was made to burn out the enemy using a " fougasse ". The position was captured by direct assault at 1830 hours after thirty minutes very sharp fighting. A Coy 2/23 Aust Inf Bn had meanwhile met heavy opposition along the western track from KUMAWA and was held up at the track junction 546638. C Coy 2/23 Aust Inf Bn then carried out an encircling movement and occupied a position 500 yards further north Astride the track, but was completely surrounded by JAPS, who cut communications and isolated the company for the remainder of the day and during the night 18/19 Nov. The following day C Coy withdrew and rejoined A Coy at the track junction 546638. B Coy 2/24 Aust Inf Bn attacked, drove the enemy from a position on HILL 2000, and consolidated.

22. Northern Sector. Whilst the main attack by 26 Aust Inf Bde on SATELBERG was in progress, pressure was maintained on the enemy forces extending from that area to the coast, by 24 Aust Inf Bde northwards from its positions on NORTH HILL, and later by the advance of 2/15 Aust Inf Bn on MONGORA. During the day 2/ Aust Inf Bn moved northwest from SCARLET BEACH area and ked PABU against light opposition (details of this eration are given in subsequent pages). A patrol from 2/43 Aust Inf Bn reached a point 400 yards north of BONGA and located a strong enemy position on the north edge of the plantation. Seven standing patrols were established, covering all the tracks leading from the area WARSO - MOR towards SCARLET BEACH and HEIDSBACH.

23. During the morning nine BOSTONS in support of ground troops bombed and strafed targets in the vicinity of SATELBERG village. Indirect support was given by twenty-one MITCHELLS and six MARAUDERS in attacks against enemy bivouac areas and supplies in the KULUNGTUFU area, and these resulted in direct hits on huts and dumps and started large fires. Eight BOSTONS bombed and strafed enemy supply routes along the coastal area from BONGA to KELANOA.

20 Nov.

24. SATELBERG Sector. 2/48 Aust Inf Bn, with tank support, continued its advance along the SATELBERG track towards the STEEPLE TREE feature. Progress was again slow and

extremely difficult due to the thick matted bamboo and enemy foxholes astride the track. Mines were used on the track for the first time but were not effective. After heavy fighting the forward company assisted by tanks, occupied STEEPLE TREE at last light. 2/23 Aust Inf Bn attacked northwards and by last light was in close contact with the enemy 300 yards south of 2/48 Aust Inf Bn positions on STEEPLE TREE feature. There was no material change in 3/24 Aust Inf Bn area.

25. Continuing its efforts to disrupt the enemy L of C, Fifth Air Force again bombed villages in the KULUNGTUFU - JOANGENG - BOPONG area with twenty-four MITCHELLS and eight MARAUDERS. The mission area at KULUNGTUFU was demolished and many direct hits obtained on huts in the surrounding villages. Nine BOSTONS bombed and strafed supply routes and barges along the coastal area from KIARI to HARDENBERG POINT.

21 Nov.

26. SATELBERG Sector. Orders were issued by 26 Aust Inf Bde for 2/24 Aust Inf Bn to capture HILL 2600, 2/48 Aust Inf Bn SATELBERG, and 2/23 Aust Inf Bn the 3200 feature. Early in the morning 2/23 Aust Inf Bn linked up with 2/48 Aust Inf Bn on STEEPLE HILL, the JAPS having withdrawn overnight. 2/48 Aust Inf Bn then continued the advance against reduced opposition, suprising and routing several enemy groups in half dug positions along the track, and, by last light had occupied TURNOFF CORNER and was in contact with the enemy in strength. 2/24 Aust Inf Bn attempted outflanking moves on HILL 2600 without success. From captured documents it was found that the enemy was holding HILL 2600 with one battalion, while a battalion supported by a Quick Firing gun company, a machine gun company, and detachments was holding the main track to SATELBERG. To the west a composite group was holding MARARUO and MORENG. It was anticipated that the enemy would withdraw in the west and make a last determined stand for SATELBERG, with his depleted forces, in the FORD area and on the ridge to the west.

27. To further disorganise any possible withdrawal the tracks and supply routes from FIOR - KUANKO - WAREO and ZAGAHEMI were bombed and strafed by eleven BOSTONS.

22 Nov

28. Northern Sector. In an attempt to relieve the pressure on his SATELBERG garrison the enemy launched a two pronged attack on our positions north of the SONG RIVER. One force attacked from the north along the BONGA coastal track and a heavier attack was launched from the northwest towards the SONG RIVER mouth. D Coy 2/43 Aust Inf Bn met the coastal attack and defeated it, enemy casualties being estimated at eighty. The attack from the northwest was carried out against HQ Coy 2/43 Aust Inf Bn by what has since be found to be two enemy battalions, each under strength. This attack was disorganised by heavy artillery, mortar and small arms fire, but heavy fighting developed along the north bank of the SONG RIVER. At last light the enemy was finally defeated by a well timed counter attack by a company of 2/32 Aust Inf Bn from brigade reserve. Harassed by strong patrols and artillery, the enemy withdrew in disorder leaving many dead and much equipment. One enemy group had crossed the SONG RIVER and attempted to reach SCARLET BEACH from the west

but was intercepted by patrols and driven off. An enemy operation order captured during the day showed that the enemy plan had been for two battalions (less two companies) of 238 Regt to attack from the north and two battalions of 79 Regt to attack southeast, both attacks to link at the mouth of the SONG RIVER.

29. SATELBERG Sector. 2/48 Aust Inf Bn consolidated at TURNOFF CORNER and patrolled forward to the track bend at 539659, 2/23 Aust Inf Bn moved through 2/48 Aust Inf Bn, turned westward towards the 3200 feature, and made contact with strong enemy positions on the spurs west of the main track. The main track had been severely damaged by bombing and engineers were unable to effect repairs as it was under heavy machine gun fire. To enable tanks to move forward, work was commenced on a new track, known as SPRY STRAIT, which led off to the west.

30. Sixteen MITCHELLS bombed and straffed villages, tracks, and dumps along enemy supply routes in the WAREO area whilst six BOSTONS bombed and straffed suspected dump and staging areas at WALINGAI and AGO.

31. PT boats during the night destroyed three loaded barges off SIO and probably two off LUCIER POINT.

23 Nov

32. SATELBERG Sector. 26 Aust Inf Bde improved its positions and recce was carried out in all forward areas to ascertain weak points in the enemy's defences. 2/24 Aust Inf Bn was concentrated on HILL 2600 surrounding a strong enemy pocket on the west end of the feature.

33. GOC 2 Aust Corps arrived in the FINSCHHAFEN area.

34. Fifteen MITCHELLS and six BOSTONS attacked targets in SATELBERG and HORENO villages. The aircraft were directed to the target by artillery smoke which proved very successful. Villages and tracks along enemy supply routes were also bombed and straffed, many huts and building being destroyed.

35. PT boats attacked six barges loaded with supplies south of HARDENBERG POINT, sinking two.

24 Nov

36. SATELBERG Sector. With the eastern end of SATELBERG as its objective, D Coy 2/48 Aust Inf Bn attacked up a steep slope to the east of the track bend 530659 and, after very close fighting on a narrow front, succeeded in gaining a position approximately 150 yards below the summit of the main feature, further progress being prevented by heavy machine gun fire. During the night a two company perimeter was formed and supplies were man handled forward by the remainder of the battalion. After repulsing three strong enemy counter attacks, 2/23 Aust Inf Bn made substantial progress in their advance towards 3200 feature.

37. Northern Sector. In 24 Aust Inf Bde area seventy enemy dead were found and a strong enemy defensive position which had been occupied by about one battalion was located in the valley 600 yards west of NORTH HILL.

38. GOC 2 Aust Corps signalled GOC NEW GUINEA Force requesting that a second squadron of tanks be sent forward.

GOC 2 Aust Corps spent the day in 2/48 Aust Inf Bn area with Commander 26 Aust Inf Bde.

39. Fifth Air Force attacked enemy supply dumps and staging areas near KALASA with nine MITCHELLS and ten MARAUDERS, and nine MITCHELLS and six BOSTONS bombed and strafed the supply route from KALASA to SIALUM ISLAND, destroying many huts and buildings and starting fires.

40. PT boats sank two southbound barges during the night between CAPE WILLIAM and SIALUM.

25 Nov.

41. SATELBERG Sector. The final assault on SATELBERG was made by the three battalions attacking from the east, south and southwest. It was found, however, that the main body of enemy forces had evacuated it during the night. The remaining enemy rearguards were routed and by 1000 hours 2/48 Aust Inf Bn had captured the eastern end of the plateau and exploited to occupy the whole feature without opposition. The 3200 feature was occupied by 2/23 Aust Inf Bn at 1250 hours. The enemy had also vacated the 2600 feature during the night and 2/24 Aust Inf Bn moved forward, occupied PALANKO, and made contact with 2/48 Aust Inf Bn on SATELBERG.

42. During this phase the operations of 26 Aust Inf Bde had been greatly assisted by 2/4 Aust Cav (Commando) Sqn, which had sent out deep patrols west and northwest of SATELBERG to protect the left flank of the brigade.

PABU Operations (19 Nov - 26 Nov)

43. On the 19 Nov it was decided to despatch 2/32 Aust Inf Bn (less D Coy) to seize and hold the feature formerly held for a week by an observation patrol and known locally as PABU. The object was to cut the shortest enemy supply route from the coast to prevent the movement of supplies by this, his easiest route. It was realised that this isolated position would probably be cut off (as it was) and the force become dependent on air dropping for supply until the battle progressed sufficiently to permit a carrier line to be escorted to the area.

44. On 19 Nov 2/32 Aust Inf Bn (less D Coy) seized PABU against light opposition and was followed by a supply train of native carriers. On 20 Nov enemy parties on the GUSIKA - WAREO track were ambushed and a company patrol moved westwards towards the LAKES area. On 21 Nov the patrol encountered strong opposition and withdrew close to PABU after inflicting casualties on the enemy. This patrol threatened the L of C of the enemy force which was moving down to attack towards SONG RIVER mouth on 22 Nov, and this was probably one factor which forced the enemy to abandon the attack. At the same time a patrol to the east encountered strong opposition at EXCHANGE and later in the day line communication to PABU was severed.

45. The JAPANESE reaction to our occupation of PABU was violent, three counter attacks being launched against the position on 21 Nov and two further strong counter attacks at last light on 22 Nov. All these attacks were repulsed with heavy enemy casualties.

46. During its occupation of PABU, 2/32 Aust Inf Bn continued to ambush parties, from east and west, moving along the

BONGA - WAREO track. Since 19 Nov PABU had been isolated from supplies and on 23 Nov supplies were dropped from the air, but with only 50% recovery. Plans were made to capture PINO HILL with a view to establishing an L of C to PABU.

47. Throughout the period from 21 - 28 Nov the enemy made PABU the target for the most intense shelling and mortaring experienced by our troops during the campaign. During 24 Nov the position was such that B Coy 2/32 Aust Inf Bn fought its way out to the southeast escorting the wounded back to the brigade area, the enemy occupying ground on all sides of the PABU position.

48. On 25 Nov native carriers bringing supplies to 2/32 Aust Inf Bn with an escort of two platoons met strong opposition and could not get through but obtained valuable information about the location of enemy positions which were then heavily shelled. Supplies were dropped from the air with 20% recovery.

49. At 0600 hours on 26 Nov the enemy attacked the PABU position very strongly from the south and southwest (supported by artillery and mortars). The attack lasted for two and a half hours during which time the enemy suffered heavy casualties. The position was finally relieved by 28 Nov when B and D Coys 2/32 Aust Inf Bn supported by tanks had captured PINO HILL and cleared the area between PABU and PINO HILL.

50. The seizure and holding of PABU was of great importance, as it cut off the enemy in this area from the coast and completed the efforts of the Air Force and PT boats to prevent supplies reaching the enemy in the WAREO - SATELBERG area. Thereafter the enemy in that area was dependent on the already greatly diminished supplies from native gardens and the small quantities that it was possible to carry through the longer and more difficult inland routes. Evidence accumulating from the examination of captured documents and diaries showed that the enemy was definitely short of food and supplies.

51. Casualties.

During this phase casualties were as under:-

		KILLED.	PW.	TOTAL.
(a) Enemy.				
	(Approx)	451	3	464

		KIA:		WIA.		MIA:		TOTAL.	
		Offrs.	OR	Offrs.	OR	Offrs.	OR	Offrs.	OR.
(b)	Own.	1	31	2	135	-	1	3	167

Phase 4 - Capture of line GUSIKA - WAREO.

General.

1. On 25 Nov GOC 2 Aust Corps discussed with GOC 9 Aust Div the possibility of the enemy withdrawing from the WAREO area. GOC 2 Aust Corps emphasised the necessity for beginning the drive northwards along the coast at the earliest possible date in order to cut the enemy lines of withdrawal, and instructed that plans be made accordingly. Arrangements had already been made for

native labour to be sent forward from LAE to release working parties from 4 Aust Inf Bde which would then be available for this operation. This would also free more fighting troops for the defence of the coastline, a problem which would increase as the advance progressed northwards.

2. The original 9 Aust Div plan for the capture of the GUSIKA - WAREO ridge was a three brigade attack - 24 Aust Inf Bde on the right - 20 Aust Inf Bde in the centre, and 26 Aust Inf Bde on the left. On 27 Nov GOC 2 Aust Corps visited SATELBERG with GOC 9 Aust Div and Commander 26 Aust Inf Bde, and studied the difficult terrain over which the attack was to take place. As a result of this recce GOC 2 Aust Corps was not in favour of committing 20 Aust Inf Bde in the centre. Following further discussions that night the outline plan decided upon was for 4 Aust Inf Bde to continue the advance to LAKONA, 26 Aust Inf Bde to secure WAREO, and 24 Aust Inf Bde to secure the BONGA - WAREO track. 20 Aust Inf Bde was not to be committed, but held in reserve with a view to supporting 4 Aust Inf Bde's drive up the coast. Instructions to this effect were given to GOC 9 Aust Div, who, however, was empowered to use 20 Aust Inf Bde at his own discretion should the situation demand it. GOC 2 Aust Corps returned to DOBODURA on 28 Nov.

3. On 29 Nov GOC NEW GUINEA Force arrived at DOBODURA and approved of the instructions issued in regard to 9 Aust Div's future operations. He advised GOC 2 Aust Corps that he had made arrangements for the move of one squadron of 1 Aust Tk Bn and one heavy anti-aircraft battery to FINSCHHAFEN. GOC 2 Aust Corps had decided to move Adv HQ 2 Aust Corps and HQ 5 Aust Div to FINSCHHAFEN, but in view of the severe limitation on shipping, he considered, and GOC NEW GUINEA Force agreed, that the tank squadron and heavy anti-aircraft battery should have priority in regard to movement.

4. On 1 Dec GOC 2 Aust Corps sent a congratulatory signal to GOC 9 Aust Div, a copy of which is attached as appendix "C". He also expressed a wish that the commitment of 20 Aust Inf Bde in the central sector should be reduced to a minimum, and that, while still ensuring the security of the left flank, the drive up the coast be concentrated upon.

5. On the same date GOC 2 Aust Corps explained his views in regard to future operations to GOC 5 Aust Div, as it was the intention that HQ 5 Aust Div control the coastal advance as soon as it could be moved to FINSCHHAFEN.

6. On 2 Dec 9 Aust Div advised HQ 2 Aust Corps that, in view of the administrative work involved and the preparatory moves necessary for the concentration of 4 Aust Inf Bde, the main attack along the coast could not be begun before 4 Dec.

Outline Summary.

7. 26 Aust Inf Bde, less 2/48 Aust. Inf Bn which remained in the SATELBERG area, had made considerable progress in its attack north across the SONG VALLEY towards WAREO. After a period of heavy fighting particularly in the vicinity of KUANKO and PEAK HILL, the brigade occupied WAREO on 8 Dec. During the operation the supply problem was considerable due to the precipitous nature of the SONG VALLEY. At one stage, in order to maintain 2/23 Aust Inf Bn forward, practically the whole of the

remainder of the brigade was employed in carrying, in addition to the native carriers already allotted. In the central sector 20 Aust Inf Bde captured MONGORO on 8 Dec, and then patrolled to the northwest, with the object of exerting pressure on the enemy and confusing him in regard to the direction of our main thrusts on WAREO. In the coastal sector 24 Aust Inf Bde secured the area south of GUSIKA, which was occupied on 29 Nov, and then began a drive westward from PABU along the BONGA - WAREO track. Junction with 26 Aust Inf Bde was effected on 10 Dec in the vicinity of the track junction 2000 yards northeast of WAREO. By 3 Dec the concentration of 4 Aust Inf Bde in the GUSIKA area was complete and on 5 Dec, a bridgehead was established across KALUENG RIVER, and the brigade began the main thrust northward along the coast.

8. During this phase there was strong evidence that accurate shelling by our artillery caused many enemy casualties. Our own experience that casualties suffered by 2/32 Aust Inf Bn in their position astride the BONGA - WAREO track, and later on PINO HILL, were mainly caused by enemy artillery and mortar fire, and the fact that our artillery fire and air bombardment were much heavier than the enemy's, lead to the conclusion that the enemy suffered large numbers of casualties of which we have little direct evidence.

9. During this period the operational base for PT boats was moved from MOROBE to DREGER HARBOUR and the repair base from BUNA to MOROBE and control of operations began from DREGER HARBOUR on 1 Dec.

Daily Summary.

26 Nov

10. SATELBERG Sector. 26 Aust Inf Bde exploited towards WAREO across the extremely difficult country of the SONG VALLEY, where patrols found the enemy still in occupation of FIOR and MASANGKOO.

11. Coastal Sector. The task of 24 Aust Inf Bde had been enlarged to include the capture of the area south of the KALUENG RIVER from GUSIKA to the LAKES inclusive. 37/52 Aust Inf Bn relieved 2/28 Aust Inf Bn in the SCARLET BEACH area thus releasing the latter battalion for the drive up the coastal track to capture BONGA and GUSIKA. B and D companies 2/32 Aust Inf Bn with tanks and artillery support captured PINO HILL.

12. 9 Aust Div was instructed to assist in the preparation of the Casualty Clearing Station at HEIDSBACH.

13. Air attacks by twenty-eight MITCHELLS and eight MARAUDERS on enemy barge hideouts and dump areas in the vicinity of NAMBARIWA resulted in dense clouds of smoke over the target areas. A total of fifty-four tons of bombs was dropped in this area.

14. During the night 26/27 Nov, PT boats sank four armoured barges, moving north along the west coast of NEW BRITAIN to SAGSAG. The barges were heavily laden with troops and artillery and there were few survivors.

27 Nov.

15. Coastal Sector. 2/28 Aust Inf Bn (less A Coy) with one troop of tanks in support, commenced its advance along the coastal track to secure the right flank to the sea

by the capture of GUSIKA. Although opposition was slight the advance was slow due to difficult terrain, narrow muddy tracks running through thick jungle intersected by numerous creeks, most of which were temporary obstacles. By last light the battalion was in position northeast of PINO HILL. A Coy 2/28 Aust Inf Bn moved to PABU during the day with a view to attacking EXCHANGE.

16. GOC 2 Aust Corps visited PINO HILL with GOC 9 Aust Div. The first native carrier line since our original capture of PABU moved with escort into PABU.

17. Air support was given by eighteen MITCHELLS which bombed enemy defensive positions west of BONGA. Twenty-seven tons of bombs were dropped causing one large explosion and starting fires.

28 Nov.

18. Coastal Sector. 2/28 Aust Inf Bn continued its advance along the coastal track towards BONGA against opposition which withdrew on the approach of the tanks, and by last light was 500 yards south of BONGA. On the same day A Coy of this battalion moved east from PABU and occupied EXCHANGE without opposition. The enemy now appeared to have withdrawn from the area north of PINO HILL.

19. Successful air attacks were carried out by nine MITCHELLS and seven MARAUDERS which bombed enemy defensive positions west of BONGA, dropping twenty-five tons of bombs. A further eighteen MITCHELLS carried out a barge search from SAIDOR to FORTIFICATION POINT and bombed coastal defensive positions at BLUCHER POINT, HARDENBERG POINT and KIARI. Nine BOSTONS accurately bombed and strafed the enemy supply route from KALASA to SIALUM.

29 Nov.

20. Coastal Sector. 2/28 Aust Inf Bn occupied the commanding ground covering GUSIKA, and patrols sent forward to the KALUENG RIVER reported no enemy movement soon. 24 Aust Inf Bde was now ready to turn west and attack up the BONGA - WAREO track towards WAREO itself. 2/43 Aust Inf Bn was to begin this advance from PABU and during the day completed the relief of 2/32 Aust Inf Bn which took over responsibility for the area NORTH HILL - PINO HILL. A company patrol from 2/43 Aust Inf Bn killed thirty-seven on " THE EARS " feature 400 yards west of PABU.

30 Nov.

21. BONGA - WAREO Sector. Two companies 2/43 Aust Inf Bn, supported by one troop of tanks, and artillery, continued the advance westwards against opposition and captured THE EARS. 2/28 Aust Inf Bn encountered enemy north of GUSIKA.

22. Central Sector. 2/15 Aust Inf Bn had been relieved by 29/46 Aust Inf Bn (4 Aust Inf Bde) on 29 Nov and had moved northwest to a position on the south bank of the SONG RIVER. The task of 2/15 Aust Inf Bn was to cross the SONG RIVER and develop a third threat to WAREO by capturing NONGORA and then employing strong fighting patrols forward. It was considered that this would confuse the enemy and prevent concentration of his reserves. The crossing was made at 0715 hours, approximately 200 yards west of the mouth of the SONG RIVER and the enemy was driven from a position

on the ridge 300 yards northwest of the crossing place. Two other companies passed through and advanced northwest against opposition towards MONGORA.

23. SATELBERG - WAREO Sector. Patrols from 2/23 Aust Inf Bn were probing enemy defences in the area of SUSPENSION BRIDGE. The bridge was intact but our patrols were fired on by enemy positions covering it from the north bank of the SONG RIVER. On 29 Nov one company of 2/23 Aust Inf Bn had crossed the river 150 yards east of SUSPENSION BRIDGE, while another company moved into position to pin down the enemy in the BRIDGE area. On 30 Nov two more companies crossed at our bridgehead and the three companies moved north up the steep slope and cut the WAREO track about 700 yards northeast of SUSPENSION BRIDGE. One company attacked down the slope against the enemy position in the SUSPENSION BRIDGE area with supporting fire from the fourth company on the south bank of the river. The second encircling company continued the advance against opposition along the track towards WAREO, whilst the third encircling company remained on the track prepared to support either of the other two. This attack resulted in the annihilation of the enemy troops holding the SUSPENSION BRIDGE position. By last light the battalion had crossed the river and was in contact on the steep slopes leading to KUANKO.

24. During the night 30 Nov/1 Dec our artillery harassed the enemy at GUSIKA, the LAGOON, WAREO and KUANKO.

25. Air attacks were again directed on targets east of KALASA village. Eighteen MITCHELLS accurately bombed the target areas with twenty-seven tons of bombs, resulting in several explosions and columns of black smoke. Eleven BOSTONS bombed and strafed supply routes from BUZULUO to LAKONA thence to the MASAWENG RIVER mouth. A number of huts in LAKONA village was destroyed by direct hits, and many fires and explosions were seen.

1 Dec.

26. BONGA - WAREO Sector. 2/43 Aust Inf Bn mopped up enemy located to the south of its forward positions in THE EARS area.

27. SATELBERG - WAREO Sector. 2/23 Aust Inf Bn advanced one and a half miles up the steep track towards WAREO against strong opposition and occupied KUANKO at 1215 hours. The battalion was finally held up 200 yards north of KUANKO by enemy in occupation of well dug in positions in thick bamboo on the forward slopes of PEAK HILL.

2 Dec.

28. BONGA - WAREO Sector. 2/4[illegible] Aust Inf Bn, with the support of two tanks, continued its advance against opposition westwards along the BONGA - WAREO track and reached a position just south of the LAKES where it was held up by enemy in a well prepared position. One of the tanks was disabled after fighting a duel with enemy guns and receiving some forty direct hits from a 37 mm gun.

29. SATELBERG - WAREO Sector. 2/23 Aust Inf Bn encountered heavy light machine gun fire from strongly defended

enemy positions on the southern slopes of PEAK HILL, which could not be outflanked owing to the precipitious nature of the country. Just before nightfall a strong enemy counter attack from the north forced the leading company to withdraw to the main battalion position. at KUANKO.

30. Coastal Sector. 4 Aust Inf Bde completed its concentration in the BONGA area, preparatory to passing through 24 Aust Inf Bde and driving northwards along the coast from the KALUENG RIVER. It was expected that by threatening the enemy's coastal supply line, this thrust would force him to abandon the whole WAREO position.

31. Nine MITCHELLS and ten MARAUDERS dropped twenty-nine tons of bombs on enemy occupied areas, barge off loading points, and dumps, in the vicinity of the SOWI RIVER mouth.

3 Dec.

32. BONGA - WAREO Sector. South of the LAKES 2/43 Aust Inf Bn advanced 150 yards along the track BONGA - WAREO, but was again held up. 2/32 Aust Inf Bn less two companies moved forward to relieve 2/43 Aust Inf Bn and take over the offensive.

33. SATELBERG - WAREO Sector. Heavy enemy counter attacks from the north and northeast on 2/23 Aust Inf Bn at KUANKO were broken up by artillery, mortar and machine gun fire.

34. Coastal Sector. 22 Aust Inf Bn secured a bridgehead across the KALUENG RIVER with the object of preparing a crossing place for tanks, and enabling the development of the small beach at the mouth of the KALUENG RIVER as an initial maintenance area for the advance.

35. Continuing the offensive against the enemy L of C accurate bombing attacks were made by eleven BOSTONS on enemy supply dumps at MASAWENG RIVER, HUBIKA and WANDOKAI. The supply route along the coastal track from MASAWENG RIVER to WANDOKAI was heavily strafed.

4 Dec.

36. BONGA - WAREO Sector. 2/32 Aust Inf Bn less two companies but plus one company 2/43 Aust Inf Bn bypassed the enemy and advanced westward along the track to a position 800 yards west of the LAKES. In this area contact with the enemy was made to the east and west.

37. SATELBERG - WAREO Sector. In the KUANKO area enemy pressure developed on the right rear of 2/23 Aust Inf Bn perimeter and cut the supply line, necessitating a new supply route being cut to the west of the existing track. A patrol to the northwest located a possible, though difficult, route through thick jungle, to the saddle west of PEAK HILL. 2/24 Aust Inf Bn which had concentrated in the SUSPENSION BRIDGE area was ordered to capture PEAK HILL by encircling to the west by this route.

38. Coastal Sector. 22 Aust Inf Bn concolidated the bridgehead over the KALUENG RIVER and by last light tanks of "C" Sqn 1 Aust Tk Bn had crossed the river and were in harbour on the northern bank.

39. Central Sector. 2/15 Aust Inf Bn sent one company north across country to cut the track in rear of the enemy position northwest of MONGORA, but after an impassable gorge made this impossible, the company returned on the 5 Dec.

40. Air attacks were again concentrated on enemy supply routes. Twelve BOSTONS bombed and strafed the coastal track and villages from BLUCHER POINT to WANDOKAI and a suspected dump area on the south bank of the SANGI RIVER mouth. Some explosions and fires were observed. Nineteen MITCHELLS bombed NANDA village and SIO ISLAND. Fires covered the plantation at SIO.

41. Evidence from prisoners of war had indicated that some supplies were being brought in by submarine to barge staging points on the north coast. During the night 4/5 Dec our PT boats sighted and destroyed five bundles each of 200 bags containing supplies and rafts with boxes of ammunition suspended from them. It is believed that this was the deck cargo of one of those submarines.

5 Dec.

42. BONGA - WAREO Sector. 2/32 Aust Inf Bn found the enemy had withdrawn during the night and the battalion continued its westwards advance until held up by strong enemy rearguard in the vicinity of the high ground 1500 yards west of the LAKES. Left flank encirclement to the south failed due to extremely difficult terrain, and the enemy position was subjected to artillery and mortar fire.

43. SATELBERG - WAREO Sector. 2/23 Aust Inf Bn maintained pressure against the enemy on PEAK HILL whilst 2/24 Aust Inf Bn continued the encircling move to the northwest.

44. Coastal Sector. 4 Aust Inf Bde started its main attack up the coast. 29/46 Aust Inf Bn passed through the bridgehead previously established by 22 Aust Inf Bn and attacked northwards, with one troop of tanks in support, against strong enemy defences consisting of solid bunkers protected by a minefield located 500 yards south of the LAGOON. Despite opposition and difficulty with anti-tank mines, it reached the creek running into the northwest corner of the LAGOON. B Coy 37/52 Aust Inf Bn provided left flank guard for the advance, moving northwards along the high ground 2000 yards west of the coastal track.

45. In direct support of 4 Aust Inf Bde six BOSTONS successfully bombed and strafed enemy defensive positions north of the LAGOON.

6 Dec.

46. BONGA - WAREO Sector. In the HILL 1800 area 2/32 Aust Inf Bn attempted an encircling movement to the right but was again held up by impassable terrain. Patrols probed the left flank and close contact was maintained.

47. SATELBERG - WAREO Sector. 2/24 Aust Inf Bn reached the saddle between PEAK HILL and KWATINGKO and then attacked up the spur towards PEAK HILL less one company which moved west to attack KWATINGKO.

48. Coastal Sector. 29/46 Aust Inf Bn continued its advance against opposition and reached a position 1000 yards north of the LAGOON. The tanks were unable to catch up with the advance for some days because the enemy produced an effective delaying device in the shape of tank mines boosted with large charges of picric acid buried deep in the ground. Several tanks and bulldozers had tracks blown off and one tank was irreparably damaged. The remainder of the 37/52 Aust Inf Bn moved inland to support B Coy by affording left flank protection, its first objective being the high ground 1000 yards west of the LAGOON. B Coy, which was echeloned to the left flank, encountered the first remnants of the enemy moving back from the WAREO area, ambushing and killing twelve.

49. Nine BOSTONS bombed and strafed enemy defensive positions north of KAMLAGIDU POINT and ground troops reported attacks as excellent. Twelve MITCHELLS bombed dump areas along the enemy supply route at LAKONA and KILIGIA.

7 Dec.

50. SATELBERG - WAREO Sector. It was found that the enemy had withdrawn from PEAK HILL during the night. 2/24 Aust Inf Bn moved forward, occupied the feature and made contact with 2/23 Aust Inf Bn in KUANKO. 2/23 Aust Inf Bn concentrated in the PEAK HILL area and reconnoitred lines of approach for the attack on WAREO. 2/24 Aust Inf Bn reorganised with two companies on immediate notice to pass through 2/23 Aust Inf Bn on the capture of WAREO and exploit east along the BONGA track. One company 2/24 Aust Inf Bn struck opposition at KWATINGKO and after killing twelve JAPS dug in astride the track.

51. Coastal Sector. The enemy in strength was located in the area 1000 yards northwest of the LAGOON and by-passed by 29/46 Aust Inf Bn which gained ground in its northward advance against strong opposition. The enemy by-passed was finally mopped up by the reserve battalion (22 Aust Inf Bn) on 10 Dec, seventy dead being counted.

52. Central Sector. 2/15 Aust Inf Bn patrols towards the BONGA - WAREO area regained contact with enemy parties northwest of NONGORA.

53. Bombing and strafing of the enemy supply route from WANDOKAI along the coastal track to NUZEN were carried out by eleven BOSTONS.

8 Dec.

54. BONGA - WAREO Sector. 2/32 Aust Inf Bn occupied HILL 1800 from which the enemy had withdrawn.

55. SATELBERG - WAREO Sector. 2/23 Aust Inf Bn attacked towards WAREO, two companies moving via the re-entrant west of WAREO and one company up the main track. Again it was found the enemy had withdrawn during the night, and 2/23 Aust Inf Bn occupied WAREO without opposition. It was obvious that the enemy had expected to hold the attack at PEAK HILL and had not prepared a strong defensive position at WAREO. Two companies of 2/24 Aust Inf Bn then advanced astride the track through WAREO, and, despite stubborn enemy delaying actions, forced its way approximately 1000 yards north along

the BONGA - WAREO track. One company of this battalion occupied KWATINGKO and advanced west along the track towards BAZULUO. This company encountered an enemy ambush position 300 yards east of BAZULUO and suffered heavy casualties. The position was captured next day with the assistance of B Coy 2/23 Aust Inf Bn and contact was made with 2/4 Aust Cav (Commando) Sqn further to the west.

56. Air attacks were again directed against enemy supply dumps and bivouac areas. Ten MARAUDERS bombed dump areas east of WANDOKAI, dropping fifteen tons of bombs, and eleven MITCHELLS accurately bombed bivouac and supply areas east of KALISA.

57. Nightly PT boat patrols had by now extended west to SARMOR and had destroyed at least seventeen barges and damaged many more since 17 Nov.

58. Casualties.

Casualties during this phase are as follows:-

(a) Enemy	Killed.	Found Dead.	PW.	Total.
(Approx)	451	40	1	492

(b) Own.	KIA.		WIA.		MIA.		Total.	
	Offrs.	OR.	Offrs.	OR.	Offrs.	OR.	Offrs.	OR.
	2	45	14	218	-	-	16	263

Phase 5 - The Advance to FORTIFICATION POINT.

General.

1. By the direction of GOC 2 Aust Corps, at no time during the coastal advance northward by 4 Aust Inf Bde were forces larger than patrols to be without the covering support of artillery and full use was to be made of artillery and landing craft to conserve the strength of the troops. Inland patrolling, particularly by white troops, was reduced to a minimum as it was foreseen that our advance up the coast would cut off the retreat of the inland enemy parties.

2. Orders to 4 Aust Inf Bde stated that the advance to FORTIFICATION POINT was to be made by bounds from one beach maintenance area to another, only two of which were to be in use concurrently, and that 4 Aust Inf Bde was responsible for their protection until relieved by 20 Aust Inf Bde.

Outline Summary.

3. After the establishment of the KALUENG bridgehead the advance of 4 Aust Inf Bde continued steadily, under the heaviest artillery support of the campaign. The enemy resisted strongly, mainly at creek crossings in the coastal jungle, but heavy artillery and mortar fire blasted him out, and 4 Aust Inf Bde made continual encircling and by-passing attacks, which invariably forced the enemy to withdraw. Further, the enemy did not occupy the commanding ground to the west, which was covered mainly with open kunai, and a force moving

along this high ground outflanked his positions near the coast.

4. 20 Aust Inf Bde followed close behind 4 Aust Inf Bde with the responsibility of protecting the left flank and rear of the leading brigade, by means of infantry patrols moving on the high ground and FIB patrolling in depth along the tracks leading inland. This brigade was also responsible for taking over the protection of the rear beachhead as new maintenance beachheads were developed forward.

5. 24 Aust Inf Bde and 26 Aust Inf Bde were allotted the role of protecting the FINSCHHAFEN area. An inter-brigade boundary inclusive to 24 Aust Inf Bde was fixed as the XMAS HILLS - HONGORA track. Both brigades were ordered to complete the capture of GUSIKA - WAREO line and then to organise their sectors for defence, to patrol actively all tracks leading into their areas, and to establish standing patrols backed by reserves in depth on all likely lines of approach.

6. By now the enemy was in full retreat, but his rearguard continued to fight stubbornly. By 20 Dec, however, 4 Aust Inf Bde with powerful support by tanks and artillery, had broken enemy resistance in MASAWENG RIVER area and occupied its objective - the high ground at FORTIFICATION POINT. 4 Aust Inf Bde then patrolled the inland approaches along the MASAWENG RIVER and the high ground to the north in the ZAGAHEMI - HOMPUA area. 20 Aust Inf Bde which had been following 4 Aust Inf Bde in divisional reserve now prepared to move through and take up the pursuit.

7. Map 5 attached shows the forward dispositions of 9 Aust Div and the approximate enemy locations as at 1800 hours 9 Dec. Map 6 shows diagrammatically the progress of operations in coastal advance GUSIKA - FORTIFICATION POINT.

Daily Summary.

9 Dec.

8. Coastal Sector. 29/46 Aust Inf Bn secured a bridgehead over the TUNOM RIVER in the vicinity of the coastal track. Further inland D Coy 37/52 Aust Inf Bn crossed the river in face of strong opposition but sheer cliffs prevented further advance north to the high ground and the company withdrew south of the river.

9. Central Sector. A patrol from 2/15 Aust Inf Bn made contact with 2/32 Aust Inf Bn at the track junction south of HILL 1800 at 580718.

10. WAREO Sector. 2/24 Aust Inf Bn was held up by well dug in enemy positions covering the track junction 2000 yards northeast of WAREO. Further west D Coy 2/24 Aust Inf Bn and B Coy 2/23 Aust Inf Bn drove back the enemy and occupied BAZULUO. 2/4 Aust Cav (Commando) Sqn moved from MOGAKO to MERIKEO area, wide on the west flank.

11. GOC 2 Aust Corps arrived at FINSCHHAFEN from DOBODURA.

12. During the early morning nine BOSTONS bombed and strafed the coastal track from the MASAWENG RIVER mouth to WANDOKAI village. Ten MITCHELLS bombed a barge off-loading point at HUBIKA starting a large fuel fire.

13. During the night our PT boats sank five barges four miles north of REISS POINT; and sank three barges and destroyed two which were lying off shore north of HARDENBERG POINT.

10 Dec.

14. Coastal Sector. 29/46 Aust Inf Bn, supported by tanks and artillery, captured KILIGIA, advanced to the SOWI RIVER, and began mopping up the area. Further west 37/52 Aust Inf Bn supported by an artillery concentration of approximately 2000 rounds and one platoon of machine guns, crossed the TUNOM RIVER against opposition and occupied a position on the north bank. 22 Aust Inf Bn cleared out the strong pocket of enemy resistance in deep dugouts in the coral cliff faces near the creek junction 1000 yards northwest of the LAGOON, which had been by-passed by 29/46 Aust Inf Bn. A good landing beach known as COCONUT BEACH at the mouth of the TUNOM RIVER was put into operation as a forward supply point.

15. WAREO Sector. The enemy in strength still held the high ground astride the main track on the 2200 feature thus covering the track to KILIGIA. Recce patrols from 2/24 Aust Inf Bn found that due to the extremely difficult terrain encirclement of this position was only practicable by the southern flank. A long range recce patrol from 2/4 Aust Cav (Commando) Sqn which moved to JOANGENG reported no enemy seen.

16. At night our PT boats sank two barges and damaged three more a quarter mile north of WALINGAI.

11 Dec.

17. Coastal Sector. 22 Aust Inf Bn relieved 29/46 Aust Inf Bn and, with one troop of tanks, established a bridgehead across the SOWI RIVER and advanced to a position 500 yards north of the river.

18. WAREO Sector. A patrol from 2/24 Aust Inf Bn outflanked the strong enemy position astride the track on the 2200 feature and made contact with a patrol from 2/32 Aust Inf Bn which had been pushing forward from the XMAS HILLS feature.

19. Eight MITCHELLS and nine MARAUDERS bombed dump areas on the enemy supply route near HUBIKA, and suspected dumps in the area.

20. On night 11/12 Dec our PT boats sank three enemy barges north of SANGA RIVER. Heavy fire from the shore, by one 75 mm gun, four 20 mm guns, and light machine guns, was encountered.

12 Dec.

21. Coastal Sector. 22 Aust Inf Bn encountered a strong enemy position estimated at one company strength equipped with heavy and light machine guns, disposed along the creek bed 1250 yards north north-west of KILIGIA.

22. WAREO Sector. After a wide encirclement A Coy 2/24 Aust Inf Bn attacked the enemy on the 2200 feature and after heavy fighting, which lasted six hours in difficult country against a tenacious enemy, captured the position, the enemy withdrawing along the track northeast towards LAKONA. This action finally opened the BONGA - WAREO track.

23. During the night our PT boats sank six enemy barges off REIS3 POINT and destroyed three barges when they attempted to beach. All these barges were fully loaded.

13 Dec.

24. Coastal Sector. 22 Aust Inf Bn with artillery fire and tank support, cleared enemy positions situated southeast of LAKONA and advanced along the coast to within 200 yards of the village. One company of 37/52 Aust Inf Bn secured the high feature 1000 yards west of KILIGIA.

25. WAREO Sector. The enemy was holding a knoll covering the LAKONA track on a razorback ridge, 700 yards northeast of the track junction at 564727. Several attempts to outflank this position by patrols of 2/24 Aust Inf Bn were unsuccessful owing to the precipitious nature of the country.

26. GOC 2 Aust Corps returned to DOBODURA.

27. A sweep by AIRACOBRAS along the RAI coast between FORTIFICATION POINT and SADOR resulted in ten barges being straffed and destroyed.

28. During the night one 30/40 foot enemy barge was sunk in HAREN HARBOUR by our PT boats.

14 Dec.

29. Coastal Sector. On the western flank 37/52 Aust Inf Bn less one company crossed the SOWI RIVER. During the day several enemy parties withdrawing northeast from WAREO were encountered on the high ground 1000 yards west of KILIGIA by this battalion and patrol clashes occurred.

30. WAREO Sector. Two platoons of 2/24 Aust Inf Bn supported by mortars made a frontal attack against an enemy rearguard force covering the withdrawal from the knoll 567734 and after an hours hard fighting forced the enemy to withdraw.

31. Owing to heavy demands in the ARAWE and GASMATA areas, the only air support available during the period 14/15 Dec was a sweep by 5 THUNDERBOLTS along the RAI coast, which resulted in the straffing of one barge at LEPSIUS POINT and another near KEMAU.

15 Dec.

32. Coastal Sector. 22 Aust Inf Bn captured LAKONA at 1700 hours and drove the enemy across the sand bar at the mouth of the SANGA RIVER but a strong pocket of resistance still held out on CAPE SIBIDA. There was heavy rain during the day and the tanks with 22 Aust Inf Bn were unable to cross the creek southeast of of LAKONA. 37/52 Aust Inf Bn pressed forward and cleared a strong enemy position 1500 yards west north-west of KILIGIA. Further parties of enemy moving from WAREO were encountered by patrols of this battalion throughout the day, many enemy being killed and the remnants moving north.

33. WAREO Sector. 2/24 Aust Inf Bn gained some ground in its advance northeast along the WAREO - LAKONA track.

16 Dec.

34. Coastal Sector. Fighting continued northeast and west of LAKONA against strong pockets of enemy resistance. Here again the Matilda tanks demonstrated their value when five tanks which had been held up by flooded creeks arrived late in the afternoon. With one company of 22 Aust Inf Bn the tanks attacked and the entire position was overrun within an hour. At least thirty enemy were killed, and the remainder driven back to the cliff face, where they jumped on to the rocks below, the few enemy still alive being engaged by grenades and small arms fire and finally wiped out. 37/52 Aust Inf Bn advanced to the high ground west of KILIGIA overlooking the SANGA RIVER. A PIB patrol ambushed and wiped out a party of enemy 5000 yards west of GNACPOA.

35. WAREO Sector. 2/24 Aust Inf Bn continued the advance along the track to LAKONA against opposition and reached the village 576740 approximately 3500 yards northeast of WAREO. Extensive patrols north of WAREO by 2/23 Aust Inf Bn reported no enemy seen.

36. Nine MARAUDERS bombed a bivouac and dump area at KELANOA and accurate bombing by ten MITCHELLS on the enemy supply and bivouac areas at SIO caused a number of fires visible from fifty miles away.

17 Dec.

37. Coastal Sector. 29/46 Aust Inf Bn passed through 22 Aust Inf Bn, crossed the mouth of the SANGA RIVER, and drove the enemy from a series of defensive posts in depth on the far side of the river. This crossing was greatly assisted by the artillery support of four batteries of 25 pounders which fired a barrage of over 2000 rounds. The enemy appeared to be stunned by the intensity of the barrage and offered little resistance, our only casualties being five wounded. The battalion then advanced astride the track to an area approximately 800 yards south of the MASAWENG RIVER. 22 Aust Inf Bn and 37/52 Aust Inf Bn continued mopping up to the west and south of the SANGA RIVER.

38. Enemy supply areas at NAMBARIWA were accurately bombed by nine MITCHELLS.

18 Dec.

39. Coastal Sector. 29/46 Aust Inf Bn continued its advance and crossed the MASAWENG RIVER. The battalion then secured the sandy beach north of the river mouth with one company, and concentrated in the vicinity of huts 578809. Further inland, 37/52 Aust Inf Bn moved to the high ground between the SANGA and MASAWENG RIVERS.

40. During the early morning twenty-three BOSTONS bombed and strafed dump areas along the enemy supply route at KANOMI and WALINGAI.

19 Dec.

41. Coastal Sector. After a preliminary artillery concentration on known enemy localities, during which approximately 4000 rounds were fired, 29/46 Aust Inf Bn carried out a two pronged drive north astride the coastal track and along the creek from HUTS 578809 towards the defile north of the MASAWENG RIVER. Enemy opposition

was encountered, in the defile 1000 yards south of FORTIFICATION POINT and after an attack with tanks which lasted three hours the battalion consolidated the position. 37/52 Aust Inf Bn advanced to the high feature 800 some 1500 yards north of the MASAWENG RIVER.

42. Air support requested by 9 Aust Div on targets along the coastal track from KELANOA to NUZEN was carried out by twelve BOSTONS and reported as excellent. Further support by ten MITCHELLS which bombed and strafed a barge off loading point and suspected dump area south of NUZEN was accurate. AIRACOBRAS continued daily sweeps along the coastal area both in the early morning and late afternoon. During 18 and 19 Dec four barges were destroyed and one enemy bomber intercepted and shot down.

20 Dec.

43. Coastal Sector. 37/52 Aust Inf Bn seized FORTIFICATION HI without serious opposition. A patrol from 22 Aust Inf Bn to the west of KILIGIA and south of the MASAWENG RIVER found twenty-eight enemy dead who appeared to have died of starvation, and a quantity of equipment.

44. WAREO Sector. Patrols by 26 Aust Inf Bde to the north-east and northwest of WAREO found no enemy.

45. C-in-C with GOC 2 Aust Corps arrived at Adv HQ 9 Aust Div at KILIGIA.

46. Casualties.

Enemy and own casualties for this period were as follows:

(a) Enemy.	Killed.	Found Dead.	PW.	Total.
(Approx)	420	136	6	562

(b) Own.	KIA.		WIA.		MIA.		Total.	
	Offrs.	OR.	Offrs.	OR.	Offrs.	OR.	Offrs.	OR.
	6	68	6	138	-	-	12	206

Phase 6 - Coastal Advance to SIO.

Outline Summary

1. Between 20 Dec and 25 Dec 9 Aust Div reorganised to allow the advance to continue with two brigades(20 and 26 Aust Inf Bdes), leaving 24 Aust Inf Bde to hold the area GUSIKA - WAREO - SATELBERG, with responsibility for the area south to LANGEMAK BAY, and 4 Aust Inf Bde to hold the area FORTIFICATION POINT - MASAWENG RIVER.

2. On 21 Dec 20 Aust Inf Bde passed through 4 Aust Inf Bde and took up the pursuit of the retreating enemy. This brigade concentrated its main attention on the coastal strip and was responsible for the defence and maintenance of the beachheads in its area. 26 Aust Inf Bde moved close behind in divisional reserve and was responsible for protecting the rear of 20 Aust Inf Bde and the left flank by means of inland patrols. The left rear of the advance was covered by 4 Aust Inf Bde patrolling the inland area north of the river MASAWENG linking at HOMPUA with 2/4 Aust Cav (Commando) Sqn patrols from WAREO. 2/4 Aust Cav (Commando) Sqn was under command

24 Aust Inf Bde which was responsible for patrolling south of river MASAWENG.

3. Enemy rearguards offered spasmodic opposition almost invariably from timbered creeks, but infantry pressure and artillery and mortar concentrations always forced them to withdraw overnight. Along the coast, guns, dumps of equipment, ammunition, medical supplies and stores were found, and smashed enemy barges littered the beaches. As SIO was approached, an increasing number of enemy dead was found along the track and many sick and wounded who were unable to keep up with the retreat had been abandoned.

4. At 0710 hours 2 Jan a US Force, 126 Inf Regt, landed at SAIDOR with the object of seizing an area for the development of air and naval facilities for future actions. Only light opposition was encountered and the landing was highly successful. Constructional work was carried out unimpeded by enemy action and the air strip was in action by 7 Jan. Withdrawing Japs were forced to bypass SAIDOR along the inland tracks GALI - TAPEN - MOKOPO and MALALAMAI - GABUTAMON - MOKOPO thence to TARIKUNAN - YOGA YOGA - GABUMI - LALOU The inland tracks were extremely rugged, their length was four or five times that of the track along the coast, and a great number of Japs died from starvation, exhaustion and illnesses.

5. On 13 Jan the main enemy supply base at NAMBARIWA was occupied without opposition and showed the destructive effect of the bombing it had received. On 15 Jan SIO MISSION was occupied and the whole area combed for enemy stragglers.

6. By 20 Jan units of 8 Aust Inf Bde which had moved direct from AUSTRALIA had relieved 20 Aust Inf Bde in the area north of the KAPUGARA RIVER and at 1800 hours 20 Jan, HQ 9 Aust Div handed over to HQ 5 Aust Div and prepared to concentrate in the FINSCHHAFEN area preparatory to embarkation for AUSTRALIA.

7. Map 7 attached shows the dispositions of 9 Aust Div in the SIO - KELANOA area on 15 Jan, and Map 8 attached shows diagrammatically the progress of operations during the coastal advance from FORTIFICATION POINT to SIO.

Daily Summary.

21 Dec.

8. 20 Aust Inf Brigade passed through 4 Aust Inf Bde with 2/13 Aust Inf Bn as advance guard, 2/15 Aust Inf Bn as main body and 2/17 Aust Inf Bn remaining south of the MASAWENG RIVER in brigade reserve. 2/13 Aust Inf Bn, followed by tanks, reached HUBIKA, the only opposition being from snipers. The track was carried through to HUBIKA but further progress was barred by a difficult gorge which was not bridged until 27 Dec.

9. Eleven BOSTONS bombed and strafed enemy occupied areas north of our advancing troops at WANDOKAI, WALINGAI and AGO.

10. In the morning the C-in-C with GOC 2 Aust Corps and GOC 9 Aust Div went forward to the front at FORTIFICATION HILL where he met Commander 4 Aust Inf Bde and his battalion commanders. The C-in-C congratulated these officers on the success achieved by the brigade in its first campaign. He next

met commanding officer 2/17 Aust Inf Bn who was acting as commander 20 Aust Inf Bde and the acting commander of 2/17 Aust Inf Bn. In the afternoon the C-in-C met commander 24 Aust Inf Bde and his battalion commanders and commanding officers of 2/12 Aust Fd Regt and 2/2 Aust MG Bn. The C-in-C accompanied by GOC 2 Aust Corps and commander 24 Aust Inf Bde went over the ground covered in 24 Aust Inf Bde operation. Afterwards the C-in-C visited the wounded in 2/2 Aust CCS at HEILDSBACH returning to KILIGIA that night.

22 Dec.

11. Preceded by an airstrike by twelve BOSTONS and eight MARAUDERS on targets between HUBIKA and WANDOKAI, 2/13 Aust Inf Bn continued its advance unopposed approximately 3000 yards along the track north of HUBIKA.

12. 24 Aust Inf Bde took over the defence of the areas GUSIKA - LANGEMAK BAY - WAREO and 26 Aust Inf Bde began to concentrate in the coastal area preparatory to continuing the advance behind 20 Aust Inf Bde as far as the KELANOA area.

13. C-in-C and GOC 2 Aust Corps departed from FINSCHHAFEN.

14. Our PT boats sank three enemy barges off REISS POINT and destroyed two more which attempted to beach. Off SCHARNHORST POINT one barge was sunk and three damaged.

23 Dec.

15. 2/13 Aust Inf Bn continued its northward advance and occupied an enemy position one mile east of WANDOKAI from which our patrols had previously observed the enemy withdrawing. The vacated position was found to have been bombed and shelled with excellent results. Later the enemy harassed our positions with mortar fire from WANDOKAI.

16. Twenty-four BOSTONS bombed and strafed enemy barge off loading point and supply areas at MAMBARIWA, destroying three barges, and damaging at least three more.

24 Dec.

17. The enemy withdrew from WANDOKAI, D Coy 2/13 Aust Inf Bn advanced along the coastal track, and at 1100 hours occupied the village and secured a good beach head. The enemy had apparently withdrawn hastily, leaving behind quantities of equipment and ammunition and many unburied dead. By night-fall the leading company of 2/13 Aust Inf Bn was in position 1500 yards west of WANDOKAI. The enemy using 75 mm guns from WALINGAI area dropped eighty-three shells round WANDOKAI without causing damage or casualties. 2/17 Aust Inf Bn moved to HUBIKA during the day and tanks moved by sea were landed at WANDOKAI. Numerous anti-tank mines were found in the shallow water at the point of landing, but these caused no damage.

18. Twenty BOSTONS again attacked MAMBARIWA, bombing and strafing the barge hideouts.

19. At 0630 hours our PT boats destroyed one enemy assault craft, one empty barge, and one new type of cargo carrying barge, cylindrical in shape, 100/110 feet long 20/25 feet in diameter, and probably capable of carrying over 1000 cubic tons of cargo. On night 24/25 Dec our

PT boats strafed the western end of TUAM ISLAND causing a large fire.

25 Dec.

20. Activity was limited to local patrols and regrouping to protect the beachhead at WANDOKAI.

26 Dec.

21. Patrols from 2/13 Aust Inf Bn reported enemy withdrawing to AGO.

22. At 0630 hours our PT boats shelled and destroyed two enemy barges at MAMBARIWA.

27 Dec.

23. 2/13 Aust Inf Bn continued its advance, occupying AGO, and WALINGAI and pushing forward to the mouth of the TEWAE RIVER without encountering enemy resistance.

24. GOC 2 Aust Corps visited LAE, returning to FINSCHHAFEN on 28 Dec.

25. At 090 ours eighteen MITCHELLS and twelve BOSTONS bombed and strafed enemy defensive positions in close support of 2/13 Aust Inf Bn in vicinity of WALINGAI and KANOMI.

26. At 0830 hours our PT boats on patrol shot down four enemy dive-bombers 15 miles west of ARAWE.

28 Dec.

27. 2/13 Aust Inf Bn continued the advance meeting strong opposition when the enemy attempted a delaying action south of KANOMI. The enemy was well dug in and used machine guns and mortars and a 75 mm gun, but was forced to withdraw after the position had been engaged by a concentration of artillery and mortar fire, while the infantry maintained frontal pressure and outflanked to the left. By 1800 hours the battalion had cleared as far as BLUCHER POINT. 2/15 Aust Inf Bn moved to the village south of KANOMI and 2/17 Aust Inf Bn to WALINGAI.

28. Command Group HQ 2 Aust Corps moved to an area in the vicinity of HEIDSBACH and GOC 2 Aust Corps visited HQ 9 Aust Div at WANDOKAI.

29. Twelve MITCHELLS carried out a barge sweep from BOGADJIM to SAIDOR sinking two barges.

29 Dec.

30. There was no advance along the coastal track during the day as it was necessary to build up supplies, but active patrolling mopped up stragglers and located enemy positions which were shelled by our artillery.

31. Five LIBERATORS bombed bivouac areas at SIO with unobserved results.

30 Dec.

32. In the coastal sector there were no changes in 20 Aust Inf Bde dispositions. Patrols were sent forward and to the left flank, encountering small enemy parties north of BLUCHER POINT.

31 Dec.

33. 20 Aust Inf Bde continued its advance with 2/16 Aust Inf Bn as advance guard and by last light were in contact with the enemy near NANDA.

34. Our PT boats made no contact at night but reported large fires at NAMBARIWA.

1 Jan.

35. 2/15 Aust Inf Bn continued its advance with artillery and tanks in support, through NANDA and against slight opposition occupied NUZEN.

36. At 2035 hours our PT boats sank two enemy barges off VINCKE POINT.

2 Jan.

37. 2/15 Aust Inf Bn supported by one troop of tanks resumed the advance on a two company front, and advanced through KWAMKWAM towards SIALUM. 24 Fd Bty moved up by sea from SCARLET BEACH to NUZEN BEACH in order to support the advance. Enemy in the vicinity of SANGA RIVER who had harassed our forward troops with mortar fire were heavily shelled.

38. At 2200 hours our PT boats sank two enemy barges moving north between GNEISENAU POINT and NAMBARIWA.

3 Jan.

39. 2/15 Aust Inf Bn continued its advance and reached the area SHEDS 341248 after dispersing forty enemy found on the terraces southwest of CAPE KING WILLIAM. This gave us control of SIALUM with its excellent sheltered beach for bringing in supplies.

40. At 0030 hours our PT boats sank two enemy barges moving west off REISS POINT.

4 Jan.

41. 2/17 Aust Inf Bn moved through 2/15 Aust Inf Bn and advanced to the line of the SAZOMU RIVER, disposing of enemy stragglers and taking three prisoners of war.

42. Ten MARAUDERS and nine MITCHELLS bombed the barge hideouts and dump areas at NAMBARIWA dropping twenty-seven tons of bombs accurately on the target areas.

5 Jan.

43. There was no general advance but 2/17 Aust Inf Bn established a standing patrol of one company at CHISSI POINT and patrolled to the mouth of the DALLMAN RIVER. KELANOA HARBOUR, which provided an excellent forward landing and staging point for landing craft, could now be used.

44. Twenty-five MITCHELLS bombed and strafed enemy bivouac areas and evacuation points from VINCKE POINT to KIARI and PESCHEL POINT. Considerable enemy activity was observed and gun positions and dumps strafed. Two KITTYHAWKS on a barge sweep bombed and strafed nine barges lined up along the shore just west of BONGGU.

5 Jan.

45. 2/17 Aust Inf Bn and 2/15 Aust Inf Bn crossed the DALIMAN RIVER and consolidated on the far bank. 2/13 Aust Inf Bn moved to SAZUMO RIVER.

46. Bombing and strafing attacks along the coastal area from GAUSS POINT to VINCKE POINT were carried out by nine MITCHELLS and eight THUNDERBOLTS on a last light coastal sweep destroyed one barge at NAMBARIWA and two at SOHLANGEN HARBOUR.

7 Jan.

47. In the coastal area movement was limited to active patrolling to the front and on the flank, several small enemy parties being disposed of.

48. Instructions were issued by HQ 2 Aust Corps, that. to save fatigue, deep inland patrolling would no longer be carried out.

49. The coast from VINCKE POINT to WEBER POINT was bombed and strafed by nine MITCHELLS in addition to a dump area at GALI. Much enemy activity was again reported in the VINCKE POINT area.

50. During the night our PT boats contacted five seventy foot barges three and a half miles north of POMMERN BAY on a southeast course. It was thought that these barges were destined for SINGOR. Off NAMBARIWA two food rafts were sunk and a submarine one and a half miles off shore was attacked but no results were observed.

8 Jan.

51. The advance by 2/17 Aust Inf Bn was held up near the coast along the line of the DALIMAN RIVER by approximate forty enemy in well dug camouflaged bunkers with at least five machine guns and mortars. These positions were finally outflanked and taken with support of heavy artillery and mortar fire.

52. Two barges off the beach at REISS POINT were damaged by THUNDERBOLTS.

53. During the night our PT boats destroyed one empty barge and engaged enemy troops on the beach at NAMBARIWA, sunk three barges (one of which was loaded with ammunition with seventy to a hundred troops) destroyed a barge loaded with ammunition on the beach near HERWARTH POINT, sunk three loaded barges moving east off RIMBA, and destroyed three barges on the beach at MARAKUM.

9 Jan.

54. B Coy 2/17 Aust Inf Bn advanced along the coastal track and crossed the BURI RIVER. An enemy position in the timbered creek 1200 yards southeast of the mouth of the BURI RIVER was overcome by tanks supported by artillery and mortar fire.

55. Twelve MITCHELLS bombed and strafed the bivouac area and reported evacuation point at GALI.

56. During the night our PT boats attacked six enemy barges off DORFER BAY. The barges, which were loaded with

troops and on a northwest course, attempted to fight off the PT boats. One was sunk and the others probably badly damaged, but were not seen to sink. A further PT boat patrol engaged eight enemy barges loaded with troops moving west one mile south of WEBER POINT. Two barges were destroyed and the remainder badly damaged, but results could not be observed because of heavy shore fire. A third patrol destroyed six enemy barges on the beach at BIBI.

10 Jan.

57. 2/17 Aust Inf Bn patrol found hastily abandoned foxholes and considerable equipment 2000 yards west of BURI RIVER.

58. Air support was carried out by twelve BOSTONS which accurately bombed and strafed the bivouac areas at NAMBARIWA and SIO.

59. At night, three PT boats north of REISS POINT sank three enemy barges each carrying approximately thirty troops. One prisoner of war was taken, and the rest of the enemy killed. North of SIO ISLAND, two enemy barges and a large life boat were destroyed.

11 Jan.

60. 2/17 Aust Inf Bn advanced to the MAPUGARA RIVER. In this area many well constructed positions sited for both sea and land defence were found along the track. Patrols crossed the sandbar at the mouth of the river, and proceeded towards GNEISENAU POINT by means of a narrow rugged track at the base of the STOLZENFELS SPUR. Further progress towards NAMBARIWA was barred by a sheer cliff face north of the river where wooden and rope ladders had been used by the enemy. This cliff might have proved a major obstacle had it been defended.

12 Jan.

61. The day was devoted to recce and preparation of the track for the advance to NAMBARIWA.

13 Jan.

62. 2/17 Aust Inf Bn (less two companies) made the hazardous land approach over the STOLZENFELS SPUR, using ladders to negotiate the sheer cliff faces which barred the track in many places. By 1500 hours the GOALING RIVER had been crossed and NAMBARIWA, the main enemy supply base, was occupied without opposition.

14 Jan.

63. 20 Aust Inf Bde operations were limited to active patrols towards TELIATA POINT and the SIO MISSION

15 Jan.

64. B Coy 2/17 Aust Inf Bn occupied the area SIO MISSION killing five enemy during its advance. It was found that the SIO - NAMBARIWA area contained large dumps of all kinds which the enemy had made no systematic effort to destroy.

65. Casualties.

Casualties during this phase were as follows :-

(a) Enemy	Killed.	Found Dead.	PW.	Total.
(Approx)	267	287	22	576

(b) Own	KIA.		WIA.		MIA.		Total.	
	Offrs	OR	Offrs	OR	Offrs	OR	Offrs	OR
	1	4	3	33	-	-	4	37

SECTION 5.

COASTAL ADVANCE FROM SIO TO YAGOM 20 JAN-10 FEB 44 AND PATROL ACTIVITY IN THE TAPEN AREA TO 1 MAR 44.

1. Prior to this advance it was appreciated that there were some 7000 enemy (including ineffectives) between SIO and SAIDOR but is now known that the number was 10,000 including 3000 of 51 Div. However, the enemy had ceased all organised resistance east of SAIDOR and indications were that he was making a rapid withdrawal westward in an endeavour to concentrate his forces at GALI 2 and then evacuate the area.

2. HQ 5 Aust Div, which had moved from LAE, relieved HQ 7 Aust Div at 1800 hours 20 Jan 44 and, with 8 Aust Inf Bde Gp, A Coy PIB, and 532 B and S Regt (less E Coy) 2ESB under command, prepared to continue the advance westwards along the coast and link up with the US forces at SAIDOR. HQ 2 Aust Corps had instructed that the division was to advance with not more than one battalion forward, the forward battalion to be preceded by PIB patrols and not to move beyond range of supporting artillery, this latter restriction being lifted on 2 Feb.

3. During the period 21 Jan - 25 Jan preparations for the advance continued, further troops, including elements of 2/14 Aust Fd Regt were moved forward, and action was limited to patrolling as far west as the KWAMA RIVER and south to LEMBANGANDO.

4. On 25 Jan, the advance from SIO to SAIDOR was begun, 4 Aust Inf Bn, preceded by patrols from A Coy PIB being the forward unit. This battalion advanced to MALASANGA 3 at which place it was relieved, on 3 Feb, by 35 Aust Inf Bn which continued the advance to WEBER POINT, arriving there on 8 Feb. No serious fighting took place during this period but large numbers of enemy were killed and found dead along the tracks and many more taken prisoner.

5. During the advance to WEBER POINT the most serious problem was one of maintenance. Our forward troops were being supplied entirely by small ship and landing craft but at times heavy seas made the beaching of these craft most difficult. On 1 Feb, the situation,

aggravated by monsoonal weather, had become such that 8 Aust Inf Bde ordered its troops to carry five days rations in case it became impossible to continue supply by sea. On the same day 5 Aust Div requested that supplies be dropped by air to 4 Aust Inf Bn, but bad weather prevented a successful operation until 4 Feb by which time the seas were moderate and normal supply had been resumed.

6. On 8 Feb, in order to assist the making of contact between the American SAIDOR Garrison and 30 Aust Inf Bn, an Australian Liaison Party moved by sea to SAIDOR and thence east to the American outpost at YAGOMI where it awaited the arrival of our forward elements advancing west. Contact was made at 1030 hours 10 Feb.

7. Having made contact with US forces at SAIDOR, 30 Aust Inf Bn, relieved by 35 Aust Inf Bn on 14 Feb, was sent to the area GABUTAMON - RUANGE - TAPEN - WANDILUK - NOKOPO to clear up stragglers who were escaping down the inland track. The area was thoroughly patrolled and many Japs were killed and found dead. However, from WANDILUK it was found that the track to NOKOPO was very precipitious and treacherous and in some places blocked by land slides.

8. On 26 Feb NEW GUINEA Force intimated that GHQ wished to concentrate 532 Regt 2 ESB at FINSCHHAFEN on or about 1 Mar. It was therefore decided that all troops in the forward area, with the exception of A Coy PIB, should be withdrawn to the KELANOA area immediately. A Coy PIB was to send a small patrol into NOKOPO while the remainder of the company was to continue patrolling in the GALI 2 - TAPEN area. On completion of the NOKOPO patrol the company less one platoon was to withdraw to GALI 2 for onward move to KELANOA, one platoon being ordered to patrol down the coast to WASU and investigate any native reports of enemy stragglers. The concentration of 5 Aust Div in the KELANOA area was complete by 1 Mar 44.

9. For the whole of the operation great assistance was given by 4 Tac R Sqn RAAF. Information as to enemy movement and terrain forward of our leading troops proved to be invaluable. A Piper Cub Aircraft had also been made available to 5 Aust Div and this proved invaluable as a quick and alternative means of communication. Small landing strips were quickly constructed as the troops moved forward.

10. Map 9 attached shows, diagrammatically, progress of operations during the coastal advance SIO - YAGOMI 20 Jan 44 - 10 Feb 44 and patrols TAPEN area 10 Feb 44 - 1 Mar 44.

11. Casualties - Period 20 Jan - 1 Mar 44.

(a)

Enemy	Killed.	Found Dead.	PW.	Total.
(Approx)	734	1775	48	2557

(b)

Own.	KIA.		WIA.		MIA.		Total.	
	Offrs.	OR.	Offrs.	OR.	Offrs.	OR.	Offrs.	OR.
	1	3	1	5	-	-	2	8

SECTION 6.

MAINTENANCE.

(9 Aust Div and 5 Aust Div).

1. During the first month of the campaign, resupply was made from "G" Beach at LAE by craft of 532 Regt 2 ESB, "G" Beach being supplied from BUNA by LCTs and LSTs. During the second month LCTs and LSTs from BUNA, MORESBY and MILNE BAY were routed to FINSCHHAFEN and discharged at night in LANGEMAK BAY. All stocks during these two months were controlled by 9 Aust Div and moved from beach of discharge to either depots or forward beachheads. Maintenance from these depots was by road or sea transport, in no way different from normal except that the depot was controlled by 9 Aust Div and the transportation agencies included small craft.

2. An L of C organisation took over the control of the normal Base Sub Area depots two months after the initial landing. After this occurred, the base depots accepted supplies at point of discharge and supplied the division, which allotted small craft or road transport to move supplies forward from depots to Supply Points, Details Indenting Depots, Field Supply Depots, Engineer Dumps, Ammunition Points, ADOS Dump, Field Post Office etc. Resupply of the Base Sub Area depots was continued by LCTs until approximately 30 Nov and then by small ships, the latter increasing in number as the port capacity increased, until Liberty Ships were received from about the end of December, and commenced discharging.

3. Within the division during this period, the only departure from normal was the establishment of reserves within the divisional area, usually at beachheads. Forward smaller depots were pushed inland drawing on those beachhead reserves. Units drew direct from jeephead. The division drew with its own second line transport from the Base Sub Area depots.

4. Supply forward by motor transport was made difficult by heavy rains which often rendered tracks impassable to vehicles. This was particularly applicable along the JIVEVANENG and KUMAWA tracks when supplies were built up at KUMAWA and JIVEVANENG in preparation for the attack on SATELBERG. Again, when 26 Aust Inf Bde was attacking from SATELBERG towards WAREO the track KATIKA - SATELBERG became impassable due to wet weather and despite great exertions by the engineers in endeavouring to keep the track open, jeeps had to be towed through by RAE tractors.

5. In the later stages of the campaign, commencing on 10 Jan 44, small ships were used by Corps HQ as third line transport to move some supplies to SIALUM and KELANOA from FINSCHHAFEN. This lessened materially the burden on the craft of 532 Regt 2 ESB and enabled the division to concentrate on maintenance and movement forward of KELANOA. During this stage of the campaign it was realised that monsoonal conditions might prevent the ESB from operating for periods up to three weeks. Accordingly twenty-one days reserve supplies were established forward first at SIALUM and then at KELANOA. In addition GOC 9 Aust Div ordered that at all times at least seven days supplies be within reach of his advance troops and regulated his forward move accordingly.

6. The success of the operation depended to a large extent on the work of the landing craft of 532 Regt 2 ESB. Long carries and long hours were necessary, and the wear and tear on boats severe. Timely maintenance work on the craft was not always possible, and breakdowns became increasingly frequent as the campaign progressed. Receipt of additional LCMs and the untiring efforts of officers, boat crews and maintenance detachments enabled the operation to be brought more rapidly to a successful conclusion.

SECTION 7.

SUMMARY OF EVENTS-RAMU VALLEY.

OPERATIONS 7 AUST DIV-8 OCT - 6 NOV 43.

General.

1. On assumption of command by HQ 2 Aust Corps on 8 Oct 43, 7 Aust Div was disposed in the RAMU VALLEY with a view to preventing enemy penetration southwards through the RAMU and MARKHAM VALLEYS, and protecting Allied Air Force installations in those valleys. 5 AF was already operating from NADZAB, GUSAP, KIAPIT and DUMPU.

2. The importance of the MARKHAM and RAMU VALLEYS lay in the fact that they offered the only suitable land approach by which a large enemy force could be moved against LAE. Any land movement against LAE from the main enemy concentration areas at WEWAK and MADANG must have come along the motor transport road running from BOGADJIM to YOKOPI and thence down the valleys of the rivers FARIA and URIA into the head of the MARKHAM VALLEY.

3. During the period under review 7 Aust Div was supplied entirely by air, with the forward airfield at GUSAP, and until airfields could be developed at DUMPU, which had been occupied on 4 Oct, our advance was limited by this attenuated L of C. Forward movement in strength could not be undertaken owing to inability to provide maintenance organisation necessary to build up adequate reserves in the DUMPU area, and move them forward as required. Moreover the Division still had only 21 and 25 Aust Inf Bdes under command, both of which had suffered considerable wastage mainly due to malaria. Operations by 7 Aust Div were therefore restricted to active patrolling and slight adjustment of forward positions.

4. The enemy made no attempt to advance, but seemed content to hold any further forward move by our troops, the terrain being eminently suitable for defence. This policy was probably forced upon him by his commitments in the coastal area.

5. 21 Aust Inf Bde was disposed with 2/27 Aust Inf Bn near the head waters of the FARIA RIVER covering the track from YOKOPI, 2/16 Aust Inf Bn at BEBEI guarding

the left flank and 2/14 Aust Inf Bn in reserve. 25 Aust Inf Bde was in reserve at KAIGULAN with the task of patrolling eastwards to the foothills of the FINISTERRE RANGES. Dispositions on 8 Oct are shown on Map 10 attached.

6. From 9 Oct onwards Div HQ and divisional troops moved to the DUMPU area. Landing strips were cleared and the road from DUMPU to KUMBARUM developed. 2/27 Aust Inf Bn continued their advance through very difficult country up the FARIA RIVER with 2/14 Aust Inf Bn moving up in support and to protect their L of C. By 13 Oct sufficient progress had been made to allow our troops to consolidate their positions along the FARIA and URIA RIVERS and to commence work on improvements to the L of C. From this date onward steady progress was made by means of constant patrolling and by 4 Nov our forward troops were in occupation of CAMS HILL which overlooks the headwaters of the FARIA RIVER. Active patrolling covered the relief of 21 Aust Inf Bde by 25 Aust Inf Bde which was effected between 4 Nov and 7 Nov.

7. At 0900 hours 6 Nov 43, 7 Aust Div came under direct command of NEW GUINEA Force and 2 Aust Corps was freed of the responsibility for operations in the RAMU VALLEY.

SECTION 8.

CONCLUSION.

1. The success of this campaign definitely removed the Jap threat to AUSTRALIA via BRITISH NEW GUINEA, and, in the South West Pacific Area, the Jap was forced on to the defensive. The effect of this on his morale is uncertain but it is reasonable to assume that the enemy troops engaged in the operation no longer have supreme confidence and conviction in their own superiority.

2. The securing of the HUON PENINSULA enabled the establishment of an air and a light naval base at FINSCHHAFEN, thereby increasing the radius of air action over northwest NEW GUINEA, the BISMARCK ARCHIPELAGO, NEW BRITAIN and SOLOMON SEA and permitting light naval forces to operate in the BISMARK SEA. This had the following results :-

   (a) It completed the gaining of control over the VITIAZ STRAITS, thus virtually isolating NEW BRITAIN from NEW GUINEA, and greatly restricting enemy barge traffic and naval activity in this theatre of operations.

   (b) It enabled support to be given to subsequent operations by US Forces against CAPE GLOUCESTER, SAIDOR and ADMIRALTY ISLES.

   (c) It made the JAP forward air bases at MADANG, ALEXISHAFEN and WEWAK untenable, and forced him to operate from air bases to the west of HOLLANDIA with consequent decrease in air support for his forward areas.

3. The JAP lost heavily in personnel, his 20 Div (less 78 Regt but plus various attached troops) being severely mauled and rendered ineffective as a fighting force. An estimate of enemy killed and equipment captured during the campaign is as follows:-

(a) Enemy Casualties.

(i) HUON PENINSULA.

Out of an estimated total of 12,750 enemy involved in this area the undermentioned known casualties were inflicted during the campaign. In addition, numbers of sick and wounded are known to have been evacuated.

	Killed.	Found Dead.	PW.	Total.
(Approx)	3286	2238	86	5610

(ii) RAMU VALLEY.

It is estimated that 7 Aust Div killed 100 JAPS during the period 8 Oct - 6 Nov.

(b) Equipment Captured (HUON PENINSULA)

During this campaign the following enemy equipments were captured:-

75 mm Mountain Gun	27
70 mm Battalion Gun	14
37 mm Tank Attack Gun	16
81 mm or 90 mm Mortar	25
50 mm Grenade Discharger (Knee Mortar)	75
Explosive Thrower	1
Heavy Machine Gun	57
Light Machine Gun	252
20 mm Anti-Aircraft Gun	8
13 mm Anti-Aircraft Gun	22
Tank Attack Rifle	1
Flame Thrower	4

(c) Enemy Barges

It is estimated that between MADANG and FINSCHHAFEN Allied Air and PT boats sank 228 barges and damaged 151 others.

4. Own Casualties.

Our battle casualties for all formations under command during the campaign were as follows :-

Formation.	Period.	KIA		WIA		MIA		TOTAL	
		Offr	OR	Offr	OR	Offr	OR	Offr	OR
3 Aust Div	20 Jan-1 Mar	1	3	1	5			2	8
7 Aust Div	8 Oct-6 Nov	2	52	7	155		5	9	212
9 Aust Div (inclusive 4 Aust Ind Bde)	(a) 8 Oct-25 Oct	5	90	8	227		1	13	318
	(b) 26 Oct-15 Nov	1	25	6	98			7	123
	(c) 16 Nov-25 Nov	1	31	2	135		1	3	167
	(d) 26 Nov-7 Dec	2	45	14	218			16	263
	(e) 8 Dec-20 Dec	6	68	6	138			12	206
	(f) 21 Dec-20 Jan	.1	4	3	33			4	37
Grand Total		19	318	47	1009		7	66	1334

PART II

LESSONS FROM OPERATIONS

SECTION I — ENEMY TACTICS

1. The following points on enemy tactics are intended to amplify those already brought out by formation reports. The points raised were noticeable throughout the campaign, and became increasingly obvious as the operation progressed, particularly during the enemy retreat northward along the coast.

2. Topography.

On occasions the enemy failed to appreciate fully the value of ground. Having passed through our positions to the mouth of the R SIKI the enemy made no attempt to secure the KATIKA SPUR which was the only natural feature of any tactical significance. Rather, he preferred to occupy low ground covered with heavy jungle. Some of this may have been prompted by his knowledge of his former prepared positions in SIKI COVE; but these also existed on the KATIKA SPUR. His defence in the SIKI COVE area was notable for its depth. The terrain in this area lent itself to defence in depth. The enemy's failure to occupy the tactically important high ground and headlands commanding SCARLET BEACH is a further illustration of his neglect to appreciate the importance of ground. This was possibly caused in part also by ignorance of the value of enfilade and indirect fire. In comparison, it is of interest to note the great value to 9 Aust Div of capturing ground considered "vital to the enemy", the outstanding example being the capture of PABU. The enemy failed to realise the importance of this feature until its capture and consequently neglected to protect it adequately.

3. Dislike of Open Ground.

During the withdrawal northward from GUSIKA the enemy was very reluctant to occupy the commanding ground. The narrow coastal strip was dominated the length of the coast by a high open ridge covered with Kunai grass. The enemy consistently avoided occupying even tactically important features in the open, selecting the small areas of jungle normally provided by re-entrants and creek beds. His reluctance to fight in the open was apparently because of his

(a) Fear of our arty and air attacks.

(b) Lack of Tk A weapons.

(c) Failure to appreciate the full value of his long range weapons.

4. Siting of Weapons.

Poor siting of weapons by the enemy was very marked during his rearguard action. In many cases ground could have been occupied from which fire could have been produced to delay our advance. Instead the enemy dug fire positions in low jungle country and used his weapons over very restricted fields of fire. Even then advantage was not taken of enfilade fire.

5. **Fear of Encirclement.**

The enemy's fear of encirclement was no doubt aggravated by his poor supply position. The enemy was very sensitive to any threat to his rear, particularly in the latter stages, with a consequent readiness to abandon supporting weapons and heavy equipment.

SECTION 2 — OTN TACTICS (GENERAL)

Offensive against the Enemy's Supply System.

1. In view of the effect of the breakdown of the enemy's maintenance system in the operations in the OWEN STANLEYS, BUNA - SANANANDA, WAU and SALAMAUA - LAE, and in view of our Air and Naval superiority it was decided that the Intelligence Staff should concentrate on the study of the enemy's problem so that his supply system could be attacked with the maximum prospect of success.

2. For these reasons early in October, a small special staff, drawn from both the Operations and Intelligence Branches was set up at HQ 2 Aust Corps, to study the enemy methods of supply, and his supply system for his forces in the forward area. This staff worked in closely with our own Q Staff to ascertain the problems and difficulties in our supply system. Efforts were made to obtain an officer with good Q Staff experience in NEW GUINEA to join this staff, but a suitable officer was not available at the time. Had an officer, with practical experience of the problem of maintaining a large force over a five day carrier line been available, it would have been realised earlier that it was hardly practicable for the enemy to maintain his forces in the FINSCHHAFEN area by an inland track from KALASA.

3. The primary task of this staff was to determine the points at which the enemy supply system could be most profitably attacked and the best times at which to attack it.

4. The co-operation of forward formations and units was obtained to furnish details of information gleaned in the forward areas of the enemy's Q problems. Also an observation patrol was put out to report on all movement by day or night on the BONGA - WAREO track for the period of one week. The reports of this patrol, taken in conjunction with air reports of barge movements along the coast and reports of barge sinkings by PT boats, did not show the extent to which the enemy was dependent on his coastal line of supply. It was not until after PABU, which cut the BONGA - WAREO track, was seized on 19 Nov and the enemy reacted violently and continuously, that it was proved conclusively that the enemy was dependent on his coastal line of supply.

5. The offensive against the enemy's supply was prepared for use in support of the attack of 26 Aust Inf Bde on SATELBERG and was launched some days prior to that attack and maintained at varying stages of intensity to the end of the campaign.

6. The offensive had three main objectives :-

(a) To prevent the use of native carriers to collect food and bring up supplies.

(b) To prevent the movement of supplies by barges or submarines along the coast.

(c) To prevent or hinder the movement of supplies forward.

All three Services were used for this purpose.

(a) This was achieved by the bombing and straffing of the collecting centres for native foods - the main target being KULUNGTUFU - and by the straffing of the supply route, along the coast, and from the coast inland by the FIFTH AF to ensure that the natives left the enemy service.

(b) The barge traffic was tackled by an initial bombing of all the known enemy barge hide outs with following up attacks on his principal barge hide outs notably NAMBARIWA. The operations of the PT boats of Task Group 70.1 were intensified and directed to areas of maximum activity to prevent barge movement by night, while barge sweeps by fighters of the FIFTH AF limited the barge movement by day.

(c) To hinder the movement of supplies, bombing and straffing of the supply routes ultimately led to JAPANESE supply parties moving only by night and during the battle the 2/32 Aust Inf Bn seized and held "FABU", a locality on the BONGA - WAREO track, to stop the movement of JAPANESE supplies on this, his easiest supply route.

7. Generally the effect was that the JAPANESE forces in the inland or SATELBERG area starved, and his forces on the coast were on half rations for so long that disease took a great toll and the state of his forces could only be described as pitiful. Three examples are quoted :-

(a) Within a week four of the PW taken were so weak that they died under interrogation.

(b) Twenty-eight JAPANESE dead were found on a track leading to the coast - medical opinion was that the whole party died of starvation.

(c) The enemy dead and PW captured during the advance from the SONG to SIO were in a pitiable condition, emaciated and disease ridden.

8. The results obtained in these operations from the study of the enemy's Q problems, show the necessity for a close and constant study of the enemy's supply difficulties, and that a continuous attack on the weak links in his supply chain will produce far reaching results.

<u>Control of Operations in Jungle.</u>

9. The campaign has shown that the operations of forward infantry and patrols can be effectively controlled in thick jungle; it is believed that a greater degree of control was achieved in this campaign than in previous campaigns in jungle covered country.

10. The method by which control was maintained included the following:-

(a) The detailed study of the ground by comparison with the results of stereoscopic examination of air photos.
(Schools to train additional personnel in infantry in air photo interpretation were conducted during training prior to the campaign).

(b) The maintenance of direction and distance by patrols, by the the use of measured lengths of combat telephone wire, the use of compasses and the prior study of the land features on air photos. By keeping telephone communication with patrols, locations could be checked or identified by reference to unit or brigade headquarters, while the patrol was still on the ground.

(c) As the information of the terrain was built up from study of the ground, maps and air photos, supplemented by reports of patrols, models of the ground were built at unit headquarters. These were used to brief patrols and put the forward troops in the picture prior to the battle.

Reconnaissance to Determine the Location of the Enemy Defended Areas Prior to the Attack.

11. To attack enemy prepared positions in the jungle before their location has been determined is to court failure, and, as in any other type of warfare, the nature of the ground over which the attack is to be launched and the location and extent of the enemy's position must be known. Therefore deliberate preparation is necessary and time is required to build up the required information from all available sources, the main one being the observations of patrols.

It should be noted that the remarks are not intended to apply to first contact when bold measures may be necessary to secure the initiative, but to operations where the enemy has selected and prepared positions on the ground which he intends to fight and hold.

Tactical Methods.

12. Subsequent to the resumption of the offensive, after the enemy's attack to regain SCARLET BEACH and FINSCHHAFEN had been defeated, the battle followed the usual phases:-

(a) The attack to wear down the enemy.

(b) The break through and capture of the enemy's main position and tactical features.

(c) The pursuit along the coast to complete the defeat and to cut off the enemy from his supply beaches.

13. Generally the tactical methods employed against the areas held by the enemy were in the following sequence:-

(a) Intensive patrolling to locate and if possible isolate the enemy positions.

(b) The use of artillery and/or mortars to harass and weaken the enemy.

(c) The use of all weapons to support, and the attack by an adequate force from the front, flank, or rear, to ensure the capture of the position.

14. Many island campaigns may necessitate a long advance along a coast as this one was from the SONG RIVER to SAIDOR. During this advance it was found that:-

(a) The intermediate objectives became the few "All-weather beaches" at which stores, guns and tanks could be landed.

(b) The rate of the advance was dependant on re supply.

(c) Maintenance by craft of the 532 Regt of 2 ESB US Forces proved successful; stores, guns and tanks being moved to each successive beach after its capture. The construction of a continuous coastal road was continued, so that an alternative means of supply was available when the rough seas which occurred during Jan and Feb prevented the running of the small craft of the ESB.

(d) For re-supply, the Commander of the Boat Battalion estimated that one LCM proved as effective as 10 LC7(P).

(e) The small craft of 532 Regt were able to ferry troops, stores, guns and tanks around river obstacles before crossings could be constructed by the RAE.

Planning and Preparation.

15. In this type of warfare, as elsewhere, complete and thorough preparation for an offensive is essential if success is to be obtained. The ideal combination is, naturally, adequate preparation combined with swift action both to gain surprise and maintain the momentum of the offensive. This can only be achieved if the initiative is retained and forward planning is carried out in anticipation of the course of the battle.

16. Throughout this campaign every effort was made to achieve the above policy by :-

(a) Active patrolling and effective use of artillery once the enemy's counter offensive in the KATIKA area was halted, thereby quickly regaining the initiative which thereafter was never lost.

(b) Concentrating the formation which was to perform the next phase as early as possible in a suitable area from which to operate.

(c) Collecting adequate information concerning the enemy which enabled our troops to be quickly and thoroughly briefed in regard to their part in the operation. To assist in the collation and dissemination of this information, landscape models were built where possible. These were built from maps, checked and corrected by a close study of air photographs, and supplemented by information obtained from constant and extensive patrolling. The models were used for planning and the issue of verbal orders and wherever possible, all ranks taking part in the operation were briefed on the model and later on the ground from points of observation.

(d) Building up dumps of ammunition and supplies sufficiently large to ensure that the momentum of the attack would not be unduly interrupted by delay to enable supplies to be brought forward. If it was anticipated that air dropping of supplies might be necessary. For example at PABU, tentative plans for this were made.

(e) Carrying out any special training required in conjunction with, and during the preparatory phase; for example, the training of infantry with tanks.

Shipping Restrictions.

17. Throughout the campaign the restrictions imposed by scarcity of shipping called for close supervision of shipping priorities. It was essential to determine the most suitable priority of units for the forward move and the allocation of craft available. The situation at FINSCHHAFEN made it clear that more fighting-troops were required forward as early as possible; but that need had to be balanced against the requirements of administrative units to develop the base and maintain the force at FINSCHHAFEN as it increased in size. At various times the operational situation demanded the immediate forward move of fighting units required to win the battle. Consequently the move forward of administrative and service units was unavoidably delayed thereby making difficult the maintenance of the forward troops and the repair of equipment.

Use of Supporting Arms.

18. The recent operations have proved without doubt that artillery and tanks can be employed most effectively to support infantry in the jungle. The use made by 9 Aust Div of tanks and artillery undoubtedly saved many infantry casualties and at the same time contributed to the speed of the advance. Further details of lessons learned in this regard are included under Section 4 - Artillery and Section 7 - Employment of Army Tanks.

OWN TACTICS

SUMMARY OF MINOR LESSONS.

1. Information

The lesson that negative information passed regularly is valuable and essential, has not been fully applied. In many cases this applies to the forward sub unit commanders who must arrange for regular, at least hourly, sitreps to be passed back. The tendency to wait for good or positive news must be eliminated.

2. When accurate and detailed information is hard to obtain, good patrolling is of vital importance, and is practically the only answer to the problem. Air photos are essential for a detailed study of ground over a particular sector from which the patrol policy and plan can be formulated and the necessary routes and approaches can be selected.

In all cases the patrol commanders should be carefully briefed with the photos, and an accurately annotated photo sketch map must be prepared. The briefing must be detailed and exact and must be checked back. Attention to detail is vital to obtain the best information as one bad patrol may result in the waste of a day or incorrect deductions of that area. Except in the case of immediate local protective or recce patrols, all patrols should be at least of platoon strength, and equipped with means of communication. Such patrols are able to deploy and fight for information, hold ground gained and, where necessary, form a firm base from which small recce patrols can operate. Good, suitable communications are necessary to any time with information, call for support or assistance if required, and thus hold ground gained. In the case of distant patrols - from 3 days to a months duration - the strength, supplies and communications must be carefully considered. Local guides such as ANGAU or PIB personnel are a great asset. It has been found that such patrols require a considerable number of carriers with the turn round involved, and a safe supply route. The No. 11 set using DC procedure provides satisfactory communications. Pre-arranged methods of reporting on fixed schedules, with the minimum use of codes, is essential.

3. <u>First Light Moves.</u>

During the operation it was found that valuable time was lost re-establishing contact from night perimeters. The following roster system was introduced, and is considered a satisfactory method of ensuring a first light start. One company per forward battalion is warned and prepared the previous day for a first light move, with one platoon of another company on similar notice for patrolling. With this method one company is ready to continue the advance as soon as it is light. Arrangements are necessary to pass other sub units through at a convenient time to give the leading troops a break for a meal and a clean up. With a good Q organisation breakfast can be prepared over shielded fires before first light.

4. <u>Testing Enemy Positions</u>

When in close contact, the problem will arise of testing the enemy positions at first light, to determine if he has withdrawn or in what strength he is holding. The enemy is adept at camouflage and holding his fire, necessitating a close examination to provide the required information. Further study and experiment is necessary to provide practical answers.
Some suggested methods :-

(a) Small night listening posts of up to three men to manoeuvre forward close to the enemy forward defended localities at a suitable time during the night using lengths of signal wire as a guide to return.

(b) The attachment of wires to bushes and dummies, rigged during the night, as close as possible to the enemy forward defended localities, to simulate aggressive movement at first light.

(c) Pre dawn and first light outflanking patrols.

5. "Stripped Down" Rifle Companies.

Where possible it is advisable to "strip down" the rifle companies before a deliberate attack or encirclement i.e. weapons, ammunition, tools, food and water. Detailed arrangements are then necessary amounting to a kit paragraph in orders, to include haversacks and bed rolls in the reorganisation stores as soon as circumstances permit. Quite often a carrying party from headquarter company or a reserve rifle company will be required.

6. Defence.

(a) There is a need for two stages of training:-

(i) To overcome jungle conditions.

(ii) To use the jungle as an aid.

(b) This involves a knowledge of jungle texture and its recognition from air photos.

(c) Even in jungle, it is essential to cover as much ground by fire as possible. Furthermore, it is possible to do so if the jungle is carefully reced and intelligently prepared by cutting.

(d) It is essential to deny the enemy knowledge of our positions by:-

(i) Posting sentry groups and standing patrols forward of our positions.

(ii) Not clearing the jungle, so as to reveal our posts.

(iii) Studying concealment.

(e) Deception as to our positions should be aimed at by:-

(i) Patrols - standing, and mobile.

(ii) Cutting dummy fields of fire. (Dummy posts are dangerous unless we are able to fire into them. Otherwise, the enemy may use them. They must not offer the enemy cover).

(f) Discipline while occupying defensive posts is essential. The following points need more attention:

(i) Building kitchens and living quarters in a concentrated area or actually on top of fire positions, so that the latter were advertised.

(ii) Noise created while troops were in forward posts - again advertising our presence.

(iii) Careless shedding of equipment, arms and clothing in forward posts.

(iv) Lethargic or ineffective guard and sentrygo during daylight.

(v) Careless hygiene and care of arms - particularly salvaged weapons.

(g) Training in the layout of section posts needs to be given special attention.

7. Supporting Weapons.

The siting of battalion support weapons in a perimeter, requires a close study of the ground for lines of approach and targets, in order that the best value may be derived from them.

(a) Medium Machine Guns. It is considered that a minimum field of fire of 40 to 50 yards is essential, even on a loose traverse. Where possible, the medium machine guns should form the basic fire plan of the perimeter, and if sited forward, they must be adequately protected by the forward troops and small arms fire.

(b) Mortars. Particular care in siting is necessary to ensure the minimum firing over our own troops, due to the danger of "drop shorts". With the 3 inch mortar, it must be ensured that the minimum range allows close defensive fire to be put down. Casualties have been inflicted on our own troops and many useless carries have been made, due to damp charges.

8. Man Management.

Officers must supervise the equipping and loading of their men. Men tend to overload themselves, and then discard valuable equipment, when fatigue overtakes them. Hygiene, tidyness and salvage are important. They must become habits.

9. Movement

Towards the latter part of the campaign, when men were tired, there was evidence of a tendency of slackening control by platoon commanders. Men must move as platoons, not as individuals. The pace must be regulated so as to avoid straggling.

10. Battle Drill.

It is considered that the teaching of "contact drill" with the automatic development of a platoon attack has reached such a stage that it has over-shadowed the necessity of a quick appreciation by the platoon commander. A drill for the initial deployment of a platoon on making contact is considered necessary, but thereafter the platoon commander must direct the attack, basing his plan on a quick appreciation. The extent to which automatic battle drill has been developed may result in the quick dissipation of the force with resultant loss of control.

11. Tactical Methods to which the Japanese proved Susceptable.

(a) After an enemy position had been located, it was found that, provided pressure was maintained on the enemy for a continuous period of about three days he usually attempted to withdraw.

(b) The enemy proved particularly sensitive to the fire of our artillery and mortars, particularly as he had not the means to make an adequate reply.

(c) Smoke has been used with success to discover the location of the enemy posts and automatic weapons for the enemy usually fires into smoke. It was found during the coastal advance that when confronted by a swift and vigorous assault, particularly from a flank and after artillery and mortar bombardment, the enemy broke in panic and fled. This was done even though the positions could have been held longer by a more determined enemy. He appeared demoralised by artillery and mortar fire and by really close fighting with sub machine gun, grenade and bayonet. Our losses in close quarter fighting were small compared with the enemy's.

SECTION 3 — INTELLIGENCE

Topography:

1. Staff.

Topography is of great importance in NEW GUINEA and the volume of work in I(t) normally required two I(t) officers. Their division of duties is broadly as follows:-

(a) The senior I(t) officer is principal advisor and authority on I(t) matters and must be expert in his subject, including interpretation of air photographs. He is responsible for the forward planning, including the study of, and the writing of, topographical appreciations concerning landing beaches and facilities, tracks and track timings. He also advises upon climatic and meteorological conditions.

(b) The junior I(t) officer supervises the staff, does detailed collation and exchanges information with survey, AAPIU and higher and lower formations.

2. Sources and Value of Information.

(a) Air Photographs.

These provide the most reliable source of information. The prime importance of having a complete basic photo coverage of the entire area of operations has been fully demonstrated. The coverage, preferably on a scale of 1: 10,000, should be made early to enable study for planning. Without this coverage, it is often impossible to 'tie in' and relate photographs of the NEW GUINEA jungle, and the supply of future demands is hindered. Photographs were invaluable to commanders and staffs for planning and operations. All combatant officers require training and experience in the interpretation of air photographs of NEW GUINEA vegetation. The study of the terrain by means of "Stereo Pairs" was most effective in tactical planning. It was observed throughout the campaign that a study of "Stereo Pairs" paid dividends in that formations which made such studies were often, during outflanking moves, able to avoid sheer cliff faces or impassable ravines.

It has been recommended that stereoscopes, universal, be an issue to all formations and units down to and including infantry battalions. A recommendation to this effect was contained in Adv 2 Aust Corps C/486/SD of 7 Mar 44. Limitations to the use of air photographs are provided by the natural concealment provided by jungle vegetation. Camouflaged defensive positions are very difficult to locate. It is difficult to determine from air photographs the depth of water inshore and off reefs unless the photographs are ideal.

(b) Captured Enemy Maps and Documents:

This source was valuable but could not be depended upon. Jap maps and sketch maps are very difficult to interpret and are often diagramatic only.

(c) Topographical Publications Issued by Allied Geographical Section.

These present a valuable background and provide useful supplementary information. The publications, however, were not always complete, accurate, or definite. (For instance, the report on possible landing beaches between MADANG and CAPE CROISILLES).

(d) Tac R Reports.

So far as these reports refer to topography, they must be accepted with reserve. Pilots have great difficulty in pin-pointing positions and localities on the somewhat inaccurate maps available. Reports as to track activity proved valuable but much information is hidden from the pilot by the jungle.

(e) ANGAU Officers.

These officers provided very valuable information to forward formations but have little liaison with Corps Headquarters.

(f) Prisoner of War Statements.

On I(t) matters, prisoners of war are seldom helpful, but did assist in the interpretation of air photos by indicating thereon enemy activity.

Establishment of a "Q" Intelligence.

3. A special department was created to study the enemy maintenance system, and lines of communication. This department collated all information on the subject and provided information as follows:

(a) Logistical data, which enabled calculations to be made as to enemy maintenance requirements of all commodities, the capacities of small craft and carries along the lines of communication, and time and space information thereon.

(b) Probable locations of enemy main bases, barge staging and off loading points, air target information, and, generally, information regarding the possible and probable land and sea lines of communication.

The functions of this department are more fully described in Section 2, of this report.

4. Lessons Learned.

(a) The staff used consisted of a senior intelligence officer, who was an I(t) expert and who was assisted by one clerk, and it was the duty of this intelligence officer to report to the LO I who was responsible for making deductions and decisions. Both these officers received assistance from a "Q" officer. This staff produced good results, although, at times, continuity was lost when the LO I was away from the headquarters on liaison visits.

(b) From "I(q)" information, a co-ordinated programme of air and sea attack on the vulnerable points of the enemy lines of communication and maintenance system, should be prepared at an early stage, so that the necessary air and naval forces can be made available and properly briefed.

Enemy Strengths, Dispositions, and Order of Battle.

5. I(a)

This department handles a mass of paper and its staff of only two officers has been fully engaged. It is felt that with more than two divisions under command, these officers may not have the time to give to all information coming into their department the detailed attention it deserves. It is possible that the I(a) staff should be augmented by a G3 I(a), but an attempt is now being made to reorganise the internal running of I(a) from lessons learnt in recent months.

Air Photographs.

6. Lessons learned are:

(a) In general all air photographs should be fully annotated both for Corps Headquarters and for sending forward to Divisional Headquarters. However, with topographical runs, divisions prefer annotations only of place names; additional topographical information such as tracks, spurs, and distances being marked on photographs by various intelligence sections according to their requirements.

(b) Type 2 Mosaics of important operational areas should be prepared.

(c) Very close liaison is necessary with G (Int) and G (Air). It is essential that information be passed on as quickly as possible, verbally if necessary. When practicable, reports should be illustrated by sketch maps or overlay traces.

(d) The overlay traces for 1 inch maps showing coverage and print numbers of runs, should be sent to divisions with photographs.

(e) All enemy information of immediate area of operations should be collated on either mosaics or photo maps. This facilitates reference to subsequent photographs and indication of air targets. If mosaic, or photomap, is not available, then the largest scale map available should be used.

(f) Information visible on photos should be described specifically; indefinite terms such as "much activity" should be avoided.

(g) Give count, and type, of enemy weapon pits and other defences visible, and describe sightings. Watch for dummy positions.

(h) Topographical information regarding river crossings can be illustrated by sectional diagrams; these are useful to engineers in this form.

(i) Tracks are extremely important and reports should include:

(i) Average width.

(ii) State of use - normal or abnormal.

(iii) Type of traffic carried; if wheel marks visible, then distances between markings.

(j) Accurate count of huts in village is important.

(k) It is of advantage to quote print numbers on which items of particular interest appear, to enable formations to request these photographs if required.

(l) Dealing with attack photographs, the report should cover:

(i) Assessment of damage.

(ii) Where bombs have fallen.

(iii) Comparison with mission report, and damage claimed.

(m) [illegible]erence the photo library at Corps Headquarters, experience proved it necessary:

(i) To plot accurately on 1 inch maps coverage of all photographic runs received.

(ii) To maintain a card for each mission (or run) received, showing complete detail and history of photos.

(iii) To complete details in (i) and (ii) above as soon as photos are received.

(iv) To trim photographs of any excess lateral "borders" for ease of examination and setting up quickly as loose Type 1 mosaic,

SECTION 4 — ARTILLERY

General

1. The Value of Artillery Support.

Artillery can give most valuable and effective support in this type of terrain . The main artillery weapon was the 25 pr and at no time, once the guns were ashore, were the forward troops without support. Confidence of the infantryman in the gunner, the importance of which is so strongly stressed in all our teaching was achieved to a markedly high degree by the effective use of forward observation officers with forward companies - and ev with patrols - of artillery liaison officers with t forward battalions and brigades but, most of all, by the results whenever fire was called for. It is considered that the guns not only contributed largely to the success of the operation but also assisted materially in making that success possible with the relatively light casualties to ourselves.

2. Value of Artillery Text Books.

Operations proved conclusively that the well-established principles laid down in all artillery text books and pamphlets are equally applicable to a campaign in this theatre of operations as they are to any other theatre. In regard to the above:-

(i) There has been a tendency to think that the conditions necessitate radical changes. This is incorrect.

(ii) Conditions of terrain and weather, facilities for transportation and movement to. However, it does necessitate some modifications to equipment, organisation, and procedure for deployment. These are dealt with separately in this report.

3. Importance of Reserves of Specialists.

All regiments must have, within their own war establishment, highly trained reserves of specialists of all types. This applies particularly to regimental signallers. At one stage of operations the total deficiency in the regimental signals of two field regiments engaged in active operations exceeded 100. Reinforcements were not available. In order to carry on, 44 sigs had to be obtained from a third regiment, then due for relief, after a long period in NEW GUINEA including operations.

4. Personal Clothing and Equipment.

(i) All artillery personnel must carry all kit on their back.

(ii) The old practice of transporting kits in unit vehicles can no longer be followed.

(iii) The haversack is the most suitable container.

(iv) The rifle or SMG must be carried by the soldier as well as the bedroll of one blanket, one ground sheet, one mosquito net and gas cape.

Field Artillery.

5. Provision for Relief.

A field regiment, when continuously employed in jungle operations, cannot maintain the required standard of efficiency over a long period. The loss of efficiency is attributable largely to fatigue and sickness, quite apart from battle casualties. Troops were affected by fatigue much more quickly during jungle operations, than was the case in Middle East Operations. The reasons for this were:-

(a) Climate.

The climate itself is not a healthy one and sickness quickly reduces the number of effectives. Reinforcements were not available. This, in turn, placed an additional strain on the fit personnel.

(b) Abnormal amount of Manhandling of Guns and Gun Stores.

Moves of batteries or troops usually entailed the use of both sea and land transport, with consequent manhandling of guns and stores. Motor transport was always very limited. In some cases it could not be used even when available. On occasions, tracks had to be cut for the guns before they could be moved to selected positions.

(c) Defensive Measures against Raiding Tai.

The siting and construction of these defences involved heavy work. The manning of them allowed fewer men to rest.

(d) Reduced Motor Transport.

Personnel could not be transported in unit motor transport. They had to march and carry their equipment throughout the operations.

It is essential therefore, to provide a relief. This should be available either in, or in close proximity to, the theatre of operations from the commencement.

6. It is stressed that the number of field guns which can be effectively employed in an operation is limited by the ammunition maintenance situation and the forward supply to gun positions. In this operation action was taken to ensure that ample ammunition was available in the forward area, and was accessible to the guns. It was therefore possible to use effectively, the forty eight 25 pr guns which were deployed.

7. Artillery Reconnaissance.

Excellent co-operation was afforded by 4 AC Sqn (now 4 Tac/R Sqn) RAAF. Targets were registered as required and during the static period control points were established, some of the registered targets being used. Co-operation was sufficiently close for it to become a common practice for a pilot when engaged on tactical reconnaissance and observing a worthwhile target, to switch over to the artillery frequency and engage it. The effectiveness of the fire has frequently been remarked upon by observation post officers who have subsequently, during the advance, traversed the areas engaged.

8. Air Observation Post.

Owing to the late arrival of equipment the air observation post was not used in operations. This is a matter for regret as it is considered that an air observation post would have enabled RAA to engaged many target which were otherwise lost. An air observation post readiness in the regimental area can be so quickly in the air and in a position to observe, that it could have engaged many fleeting opportunity targets which had disappeared by the time an army co-operation squadron plane could be airborne over the target area.

9. Necessity for Tank Attack Artillery.

(a) The provision of tank attack artillery for a purely tank attack role is necessary only if the terrain in which operations are to take place:-

(i) Makes the use of tanks by the enemy a real possibility and

(ii) Favours the use of tanks of a type requiring the weight of shell 6 pr; that is to say a weight of shell heavier than that available from 2 pr guns of infantry platoons.

(b) In these operations, it was not necessary to use even infantry tank attack platoons in their normal role.

(c) The decision to call forward one tank attack battery appears to have been made primarily with a view to its employment in a beach defence role.

10. Use of 2 and 6 prs for Beach Defence.

(a) The use of either 2 or 6 pr tank attack guns to provide defence against hostile landing craft is effective and proved successful at SCARLET BEACH.

(b) Point of Aim.

The belief is held by some that the first round should be armour piercing, aimed to hit the engine of the barge. This offers a very small target situated towards the stern of the craft and places the centre of the zone of the gun away from the centre of the target thus decreasing the chance of a hit. The oscillation of the boat due to the motion of the sea increases the difficulty of obtaining a direct hit.

(c) Aim.

If armour piercing is used a direct hit must be scored to inflict damage. The effect of armour piercing is very limited whereas the burst of high explosive covers a considerable area and therefore is likely to cause casualties to the occupants.

(d) It is clear therefore that:-

(i) Point of aim should be in the centre of the visible mass,

(ii) High explosive should be used in preference to armour piercing.

(iii) As high explosive is not yet available for 6 pr equipments, 2 pr guns should be used for beach defences.

Light Anti-Aircraft.

11. In order to provide effective light anti-aircraft defences of field artillery, both during a forward move in small craft, and subsequently at the landing beach, it was found advisable to include in the move three 40 mm Bofors. Therefore, when making the arrangements for the forward move of a field battery, it was assumed this included eight 25 prs and three 40mm Bofors together with a minimum of transport.

12. The allotment of light anti-aircraft was based on the relative importance attached to the various tasks required of light anti-aircraft throughout operations. This is exemplified by the fact that, when bombing, the enemy paid particular attention to field gun areas. High priority was given therefore to the task of providing protection of field artillery.

13. Light anti-aircraft sited near beaches should be allotted the secondary role of beach defence .

14. Heavy Anti-Aircraft.

If heavy anti-aircraft is required for the defence of either vulnerable points or vulnerable areas early consideration must be given to the construction of ground locator sites. The construction of such sites will usually necessitate mechanical aids being employed - i.e., "Bull-dozers". Provision for this within the regiment is recommended. In these operations, engineer priorities precluded assistance being given and sites were eventually constructed by equipment loaned and operated by US troops. This situation arose one month, approximately, after the initial landing. If heavy anti-aircraft is required in the early stages of operations, it is even more important to provide the regiment with the means for constructing ground locator sites.

Modification to Artillery Procedure.

15. Provision of continuous Support.

The principles as laid down are the same. The method, however, needs some modification to meet the particular conditions of the theatre of operations. Modifications are required to:-

(a) Composition of recce parties and the stores carried by them:-

(i) Only a very small percentage of motor transport on war establishment is available or, alternatively, can be used for a move. Strength of parties must be kept to a minimum.

(ii) Carrying parties may be required for No 11 set.

(iii) Ground locator vehicles and/or apparatus ground locator can be used only in rare cases.

(b) Details of recce:-

(i) Moves frequently required the use of both sea and land transport.

(ii) Recce parties, therefore, must recce for suitable beaches located within reasonable distance of likely gun areas.

(iii) The capacity of the beach must be noted and the "track going" must be considered.

(iv) The above factors have an important bearing on the time by which support can be provided from the new position and the amount of that support.

16. Standard Loading Tables.

The loading of vehicles will depend upon the means available for the move. Standard loading tables cannot be adhered to and are not feasible.

17. Maps.

In this campaign, the maps, although not sufficiently accurate for predicted shooting, did give a considerable amount of valuable information. The axiom that, irrespective of the accuracy of the map, a detailed recce on the ground is essential, was most forcibly demonstrated.

SECTION 5 ENGINEERS.

1. Engineer stores, unlike supplies, ammunition etc, are not standard lots applicable to all operations. Provision must be based on careful appreciation of each operation. After that appreciation is made, collection and preparation of engineer stores is likely to take longer than any other divisional preparatory measures. It is vital, therefore, that RAE be "in the picture" from the outset.

2. It is essential that:-

(a) Adequate time be allotted for engineer training.

(b) Units be struck off other duties during such training.

(c) Training be with full scale of troops, craft, equipment and stores to be used in the operation.

(d) Units rehearse in detail their actual contemplated tasks.

(e) "Full-dress" rehearsals be held.

3. Air photographs (plus interpretation) are of immense value in engineer planning.

4. Unless in exceptional circumstances, all RAE should remain under command of CRE - to derive maximum efficiency from the combined resources of divisional RAE.

5. CRE should be "in" early. (It is understood that he was in first plane to land at NADZAB, and correspondingly early at LAE landing).

6. Much engineer stores and equipment is necessarily heavy, bulky and awkward. Man-handling is slow and inefficient. Particularly in amphibious operations, they should be taken in on ready-loaded vehicles - or in default of sufficient vehicles, on sledges.

7. Quite heavy equipment (including earth-moving mechanical equipment) can be suitably broken down for air transport, and re-assembled at far end. Intense prior training should be conducted to ensure accuracy and speed.

8. Expect on minor gaps, equipment bridging is still incomparably faster than improvised - and it can be carried to "impossible" places.

9. With mechanical equipment motor transport can be got places hitherto deemed impossible; but strict policing of road and tracks is more than ever essential - especially in and after wet weather. Traffic control on new or critical roads should be under direction of an engineer officer.

10. Engineer signals are invaluable.

11. Equipment taken in initially was necessarily restricted to essentials for operational needs. These would become hopelessly inadequate for any developmental work subsequently called for; provision must then be made for bringing forward balance of equipment without delay.

12. Divisional RAE are frequently inadequate for divisional needs. They can often be handsomely supplemented by pioneer battalion (or companies thereof) under command of CRE. But an extra field company (now to be provided in beach group) remains essential in amphibious operations - and some others.

13. No corps troops RAE have been available as such. Lack of them did not prejudice operations, although it imposed extra tasks on divisional RAE. It is considered that normally they will be indispensable.

14. Inclination to formulate recommendations for general adoption based preponderantly on latest experiences in operation, must be carefully guarded against. Standard establishments and equipment tables are fundamentally sound, and should not hastily be thrown into the melting pot. What parts are "taken in" and what specially augmented for the occasion will, as always, depend on appreciation of the relevant operation.

SECTION 6 — SIGNALS.

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1. General.

All signal problems encountered and lessons learnt in these operations have been covered in a comprehensive report published following a conference of all Senior Signal Officers in New Guinea. These notes should be considered as additional to that report and in some instances in amplification of the matter concerned in the light of more recent experience.

2. Movement of Headquarters.

In the move of headquarters, sufficient signals must be included in the first flights to cope with the tasks in hand. Instances have occurred where, to cut movement to a minimum, signals have been instructed to reduce their detachments. This inevitably produces unreliable communication and imposes severe strain on personnel.

3. Line.

Within the division, line is the principal means of communication. When the division advances, a main artery is laid with occasional spur lines to flanking formations. It is necessary that one line section of corps signals be available for each division under command. This should be attached to divisional signals for laying and building the main artery and maintaining rearward lines. Cable which is to remain in service longer than a few days must be lifted off the ground and well tied back. Cable recovery was impossible, due to the rat of advance, nature of the country, and lack of personnel. In future jungle operations, it must be taken that cable cannot be recovered, and sufficient supplies of new cable must be kept well forward.

4. Damage to Lines.

Damage to lines by our own troops has caused considerable inconvenience, and stern measures are necessary to eradicate this thoughtless practice. In one case, a motor vehicle damaged a poled copper route and in order to make this good the driver deliberately cut a field line. Other instances include officers using line route poles as the upright for a shelter. It is of interest to note that the forward troops have far more respect for communications than lines of communication troops or rear area personnel. All troops should be taught to make temporary repairs to cables accidently damaged and to report such incidents, without delay, to the nearest signal personnel.

5. Lines and Enemy Patrols.

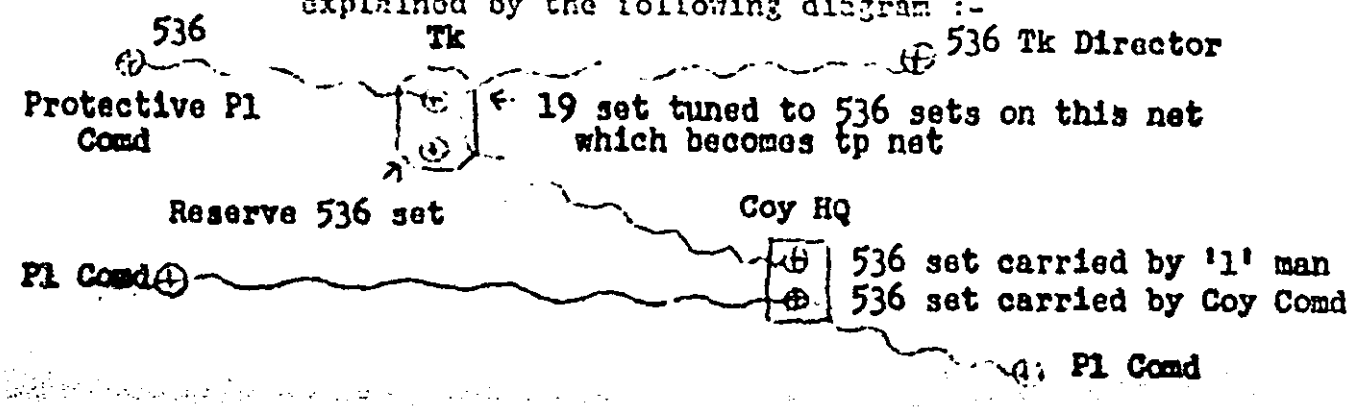
It was found that the enemy at times used cable lines as a guide to our headquarters. Efforts were also made to speak in English over the line, but were quickly recognised.

6. Wireless.

Wireless can be relied upon to carry the bulk of operational traffic in rear of division. Divisional headquarters were so far from corps headquarters that line communication was generally ~~use~~ out of the question.

7. Wireless in Co-operation with Tanks.

The use of the sets for tank co-operation can be best explained by the following diagram :-



NOTES: 1. The "I" man listens to the tank director net and relays to company commander as necessary.

2. Company commander controls two platoons following tanks on company net and can direct or assist protective platoon through tank director net using set carried by the "I" man.

3. Inter troop communication by same frequency except reserve troop listens only and is ready to come in on "flick" frequency.

Co-operation with tanks by these means has been successful to date.

8. Despatch Rider Letter Service.

The necessity for liaison aircraft being set aside purely for despatch rider letter service was apparent. Water craft were used successfully for the carrying of despatch rider letter service matter, but this is governed by the weather.

9. Ground to Air Communication.

This has been fully dealt with in the report of the Senior Signal Officers' Conference. The statement that the S7P4 Simplified Air-Ground Panel Code has been satisfactorily employed cannot be substantiated. There have been no instances of its use within 2 Aust Corps.

10. Pigeons.

Pigeons have been used with success by Water Transport and PIB patrols. An attempt to establish a corps - divisional service failed, the birds taking over 24 hours to fly a distance normally covered in 1 hour. Pigeon experts have stated that these particular birds proved unreliable due to "moult" and because they had been worked hard on previous tasks.

11. Signal Security.

A high standard of wireless security has been reached and maintained. An intercept section has been employed and minor breaches of discipline only have been reported.

SECTION 7 EMPLOYMENT OF ARMY TANKS.

General.

1. This report deals with the use of army tanks in one particular phase of the campaign, that is, the attack on SATELBERG (17 Nov - 25 Nov). Consequently, the report is materially affected by the nature of the terrain and the conditions which existed during this stage, when our use of tanks came as a surprise to the enemy, who possessed no tank attack artillery and showed little initiative in countering the tank weapon. It is considered, however, that, in principle, the comments given below are applicable to the use of army tanks in most conditions of jungle warfare, although, in different terrain and aginst an enemy more prepared for attacks by tanks, modifications will be necessary,

2. Ground has always been a limiting factor in the employment of tanks. This had led to the designation of tank proof areas where, due to the nature of the terrain, its gradient, surface or covering, it is considered that tanks could not be employed. At first sight tropical or jungle areas would, for the greater part, come under the category of tank proof country. A closer examination of the conditions prevailing in the NEW GUINEA theatre suggests a greater scope for the employment of tanks than may at first have been considered possible.

3. The supply problem, unless operating close to a sea base, has, and will, dominate all jungle operations. Small arm weapons are most important because of the comparative ease with which they can be moved and maintained. The effectiveness of enemy small arms fire, especially automatics, and the ability of the tank to deal with these weapons, suggested a more detailed study of the use of tanks with a view to their wider employment. Many difficulties exist though a thorough knowledge of ground and the capabilities of tanks will greatly assist in finding the answer.

4. The mere threat of tanks puts an added burden on the enemy by forcing him to take certain defensive precautions. On many occasions full scale precautions against tanks would not be possible.

5. Tracks are developed along the best gradients and easiest going and consequently often follow the tops of razor backed features. Encirclement had to be made on a wide arc and is slow and difficult. The direct assault with infantry is often slower and more costly. Tanks can speed up and simplify this operation with their strong fire support. They are also an answer to the elaborately constructed "bunker".

6. The basis of success is a close study and appreciation of ground backed by a fully trained team capable of getting the best out of their weapons. To effect this, tactical groups must be trained to ensure the closest cooperation between infantry, tanks and engineers. The work which can be undertaken by the engineers with their mechanical equipment and infantry assistance may frequently determine the extent to which the tactical group can be employed.

7. The following notes are prepared from experience with army tanks in recent operations.

<u>Terrain.</u>

8. The ability of the tank to negotiate the varying types of ground with or without engineer assistance will determine the scope of their employment. In all but extreme cases, or where enemy fire prevents engineer work being done, many of these limitations can be overcome. The main limiting factors are grades, surface, water courses and density of heavy timber. With these the effect of rain must always be considered.

9. Under ideal conditions each type of tank has a limiting grade that is determined by a variety of factors. Just how close a tank can approach to this under practical conditions depends firstly on the nature and condition of the surface.

If the slope of the ground is reasonably even and free from obstructions, steep grades can be tackled. The soil may enable the tracks to bite in a good grip or it may crumble away and fail to provide satisfactory traction.

10. The presence of rock or coral close to the surface will help. In jungle the soil is lightly packed and will soon become muddy unless subjected to a long spell of dry weather or opened out to allow the sun to penetrate freely. Where the top soil is deep, bogging or bellying are likely, and as a safeguard, corduroying may be necessary. (Turning on a heavy grade will usually result in bogging).

11. All steep grades should be tackled in a straight run and it may be necessary to carry out some preliminary engineer work to ensure this.

12. Initially all proposed approach routes should be carefully studied on air photos, preferably stereo pairs. Routes suggested by this study should be recced for confirmation, and an estimate made of work required. This will call for thorough knowledge of surface limitations. Where possible an engineer officer should accompany the tank recce officer. If this is not practicable, a sketch should be prepared showing location and type of work required.

13. No move should be made except over previously recced ground. Even then in contact much-cut still be done. A good knowledge of soil can be obtained from the ground already traversed and tank officers must be trained to move up to infantry positions to recce the ground forward. On occasions it may be necessary to send out special patrols to obtain the required information.

14. In heavy timber, on reasonably level ground, little cutting may be required to provide a path for the tanks. Undergrowth, secondary growth and small trees can be dealt with by the tank itself. However, heavy fallen trees across the axis selected for the tanks may be hidden in the undergrowth and prove minor obstacles. When a sound choice of route is made, only a few trees need cutting. These must be sufficiently close to the ground to allow the tank to pass over without risk of bellying. On steep grades requiring a straight run more work may be necessary.

15. In large native gardens, plantations, and open kunai, few difficulties may be expected and tanks are able to adopt the more normal open formations. In open kunai however, hidden crevices and coral outcrops must be looked for. If the kunai can be burnt off by artillery fire beforehand, the selection of routes is simplified.

<u>The Main Characteristics of Army Tanks in Jungle Warfare.</u>

16. In the jungle the essential characteristics of tanks remain the same; namely, armour, fire power and mobility.

17. (a) <u>Armour.</u>

Except for the tracks the army tank is proof against the lighter types of enemy tank attack guns. It is considered that the present magnetic type of mine cannot penetrate the main armour, and when used singly in soil it will not seriously damage the tracks.

(b) Fire Power.

The Besa machine gun, 2 pr or 3 inch howitzer, which constitute the fire power of the Army tank are all very effective against different types of targets. The height of these weapons and the short range at which they are used enable accurate, concentrated, neutralising or destructive fire as required on all types of targets and may be likened to the support from the medium machine gun to a flank. The 2 pr is effective against most of the lighter types of constructed weapon pits with either high explosive or solid shot. Solid shot enables the infantry troops to approach closer to the objective. In heavy undergrowth or bamboo the blast effect of the 2 pr is most effective. The 3 inch howitzer is more effective against the heavier types of bunker where deliberate destructive fire is required.

(c) Mobility.

While speed in itself is of no value, ability to move and manoeuvre with the forward infantry over difficult terrain is most important. Mobility depends largely on a knowledge of the ground and a high standard of training on the part of the crews and in particular the drivers. Troop commanders must be trained to judge expertly the capabilities of the tanks to negotiate ground. The power operated turret giving a 360° traverse saves a considerable amount of manoeuvre by the tank, particularly when in close contact.

18. Visibility.

In the jungle a closed down tank is almost blind. Although the tank moves slowly, when in action by short bounds, both the commander and the driver have a very restricted field of view. Consequently, most targets have to be indicated by the infantry. The driver has some opportunity to study the ground in front of the tracks and should particularly look for mines or ground disturbance which may indicate their presence..

19. Communications.

Movement in contact is slow and the distance between the infantry and tank sets is rarely over 100 yards. Consequently, with proper netting, good speech communications can be maintained. Tank commanders must use every opportunity to study the ground in anticipation of either seeing targets or having them quickly indicated by wireless. The standard of the communications may determine the standard of the support provided.

20. The combination of weight, armour and mobility enable a tank to move into the enemy defences where individual weapon pits can be crushed and neutralised. Heavy bunkers will withstand the weight of a tank, though a machine gun slit or opening could be blocked by the side of the tank while another target is engaged.

21. Using these characteristics to advantage the tanks can be employed with the forward infantry to deal with enemy strong posts in detail. The use of tanks in this role saves many infantry casualties .

Enemy Methods.

22. The Jap sites his defences on ridges or knolls covering the main line of approach which is usually a track or foot pad. His fire positions are sited to take advantage of any heavy undergrowth or bamboo. This enables the enemy to concentrate what anti-tank measures he has available on the restricted lines of approach. While the use of tanks with our forward infantry must have some effect on Jap morale, rarely has he been noticeably demoralised. He fights back with every weapon available. The tanks appear to draw his small arms fire even when his ammunition supply is limited. In jungle warfare the enemy has supply problems similar to our own and in difficult country his tank attack resources will be limited.

23. Mines.

The present type of magnetic mine is a general purpose explosive and is carried by subunits. This mine appears to have a delay action fuse which would require modification for use in the ground against tracks. Used singly it is not effective against an army tank. Improvised charges made from magnetic mines, explosives, mortar bombs or shells would probably be effective. The standard Jap anti-tank mine has been encountered, set in pairs close together with a connecting bar of wood. Used in this manner they could probably blow a track. In many cases mines have been placed on tracks and approaches and have not been covered by small arms fire. No anti-lifting devices have been encountered. Molotov type grenades were not used though their use can be anticipated and guarding against them is a fundamental of all tactical dispositions.

24. Guns.

The 37 mm is ineffective at close range except against the tracks in front of the tank. His chance of using enfilade fire against the bogeys and suspension is very limited. While the enemy has used 70 and 75 mm guns, insufficient experience has been gained of their capabilities against tanks. The new 55 mm has been reported and would probably be an effective tank attack weapon. However, the infantry and artillery plan must endeavour to neutralise enemy guns and this has often been done.

25. Tank Obstacles.

The enemy dug anti-tank ditches across tracks though so far he has shown no particular ingenuity in their siting. Craters and prepared land slides were expected and arrangements made to deal with them. Log barricades were not encountered, probably because the enemy was not allowed sufficient time to prepare and site elaborate obstacles. Tanks came as a surprise and it is probable that the forward troops were caught unprepared. In any case, these obstacles must be regarded in the same way as mines in that a quick infantry operation is necessary to secure ground which will enable the engineers and tanks to work forward.

The Tactical Group.

26. The tactical group in jungle warfare is the infantry company, a troop of tanks and a detachment of engineers. The size of the engineer detachment will vary depending on the country and mechanical equipment necessary and available. It is considered that one bulldozer and at least one tractor will be essential to get the maximum assistance.

27. A second troop of tanks is necessary well up, to go forward and relieve the leading troop if this becomes necessary through fatigue or having to back out and replenish. It is also immediately available to outflank or exploit with another company. In any event it is necessary for either a troop commander or the tank battle commander to be on foot with the forward company to control and direct the action of the tanks in the closest co-operation with the infantry. It can be seen from this that every rifle company should be trained to work with tanks to ensure the utmost flexibility.

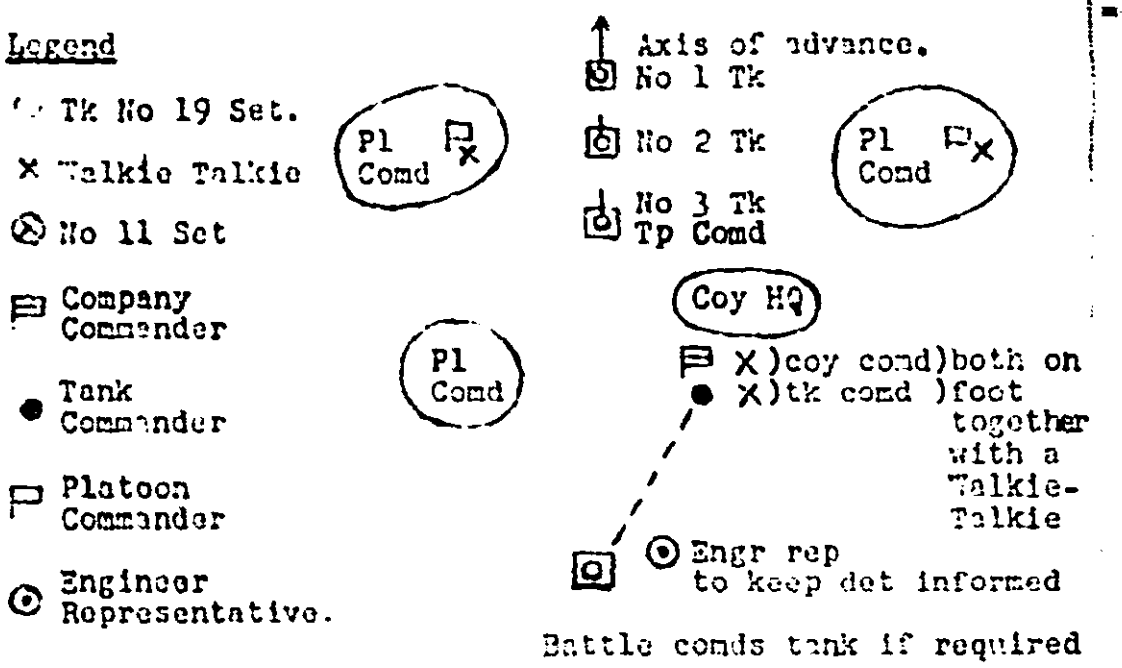
28. With the above tactical grouping and good communications the offensive can be maintained continuously until the enemy is defeated or forced to withdraw.

29. With mechanical equipment well forward a jeep track can be developed as the tanks continue to advance. In some cases during wet weather when sufficient troops are available for corduroy and road construction, essential supplies can be kept forward by tractor and trailer. In any case it is desirable to maintain jeep head very close to, if not at, the scene of action.

30. The tactical group with one platoon working immediately with the tanks for their local protection and two platoons free for deployment gives a very strong fire power combination on a narrow front. In many cases in precipitous country where encirclements may take days, the infantry and tanks are able to assault using the direct approach by close fire and movement. Examples of tactical handling are discussed later. However, in principle, the tank with its armour and fire power is able to work slightly in advance of the infantry and can deal with each individual enemy position separately at close range. As each machine gun is pin-pointed, the fire of one of the leading tanks can be directed on to it. The infantry then mop up along the sides of the track and continue to press forward. In razor-back country the track is the key to the positions and when once gained the defences on the steep sides can then be taken in rear or from above. In some cases in heavy bamboo, where the exact machine gun position cannot be located, it may be necessary to blast a small area with 2 pr which, though heavy in ammunition expenditure, is effective. If the ground permits, a tank can move from the track and flatten the area by movement. As enemy machine gun posts are located, a tank can provide neutralizing fire to assist the infantry fire and movement. If necessary, a tank could be used temporarily as a mortar observation post for close shooting.

<u>Communications.</u>

31. The Walkie-Talkie, SCR 536(B) has proved to be an ideal link between the infantry and tanks. The most practical and satisfactory system is shown diagramatically on following page.



⊗ No 11 set at Bde HQ can intercept on most No 19 set frequencies working with the Talkie-Talkie Set.

32. In the above layout, 5 Talkie-Talkie sets are required though 4 can be used by either the company commander and tank commander using the one set, or by taking the set from the reserve protective platoon. The No 19 set of each tank is netted to the Talkie-Talkie net before the action, one of the more powerful tank No 19 sets acting as control. Procedure should be cut to a minimum and with good discipline the net works well.

33. Quite often, the only traffic will be between the leading platoon commander and the first tank. In this way the fire of the leading tanks can be quickly directed to provide adequate neutralising and destructive fire. As required, both the company and tank commanders may issue instructions and directions while all other sets remain on listening watch to be fully in the picture. The Talkie-Talkie can be easily recognised at short range and suggestions already put forward to camouflage or modify the set to make it less conspicuous should be fully tested.

34. Line should always be laid by the leading company which provides a link to battalion thence to brigade. If necessary, details of the action can usually be obtained by intercept on a No 11 set. If brigade headquarters is some 1000 to 1500 yards behind the leading troops the Talkie Talkie sets can be heard while the stronger No 19 tank set is easy to pick up.

35. The maintenance of sets requires detailed attention and close supervision to ensure their efficient working. As a general principle it is considered that three separate sets are required for each troop of tanks and infantry company fighting. This gives one set in use, one set sealed in immediate reserve and one set being maintained. If possible, the sets should be changed at the end of each days fighting to allow the proper maintenance to be carried out. Every effort must be made to seal spare or reserve sets and batteries and those in use must be protected as far as possible from rain and damp. No sets should be sent forward of brigade unless they have been carefully checked and tested.

Movements to Forward Assembly Areas.

36. When a suitable line of approach has been selected, constructional work on the route should be commenced as soon as possible. Depending on cover from view and the distance from the enemy the initial scope of the preparation can be determined. This may vary from the minimum amount of felling and clearing to the construction of a wide open road with heavy engineer mechanical equipment.. Often the route selected for the tanks will be developed into a main supply line for jeeps and this should be borne in mind when work is commenced, particularly in regard to the preparation of corduroy.

37. Until the presence of tanks in the area is known to the enemy, detailed planning is necessary to ensure surprise. Various methods may be adopted. Movement by night over sections of the track will be necessary with covering artillery fire when our forward troops can hear the engines. Aircraft could be used to drown the noise of the engines. As the tank engine sounds much the same as a tractor or bulldozer it may be of advantage to allow the enemy to see the latter working on certain tracks. This provides the opportunity to foil an attack on a flank with tanks, using a tractor hidden from view, and later commit them to action.

38. The time to move tanks to forward assembly areas, and later committing them to action, must be carefully determined in relation to the terrain and local weather conditions. Quite often the track will stand a limited number of tanks and jeeps before it must be closed for a time to allow the surface soil to drain or to allow further constructional improvements. It then becomes necessary to give essential operational requirements a priority depending on the scope of action contemplated. To ensure that the quota of tanks and vehicles get through, it will be necessary to dispose the engineers and their equipment on any bad sections of the track. In any event rigid track discipline and control is essential to get the best out of any tracks being used.

39. Once tanks have reached their forward assembly area they must be camouflaged and protected. Daily maintenance and engine tuning can be arranged to coincide with artillery or mortar shoots on that particular sector of the front.

Tactical Deployment.

40. The method of deploying the tactical group will depend on the terrain and the type of position the Jap is holding. To gain the necessary detailed information a period of active patrolling is essential and must be properly co-ordinated to cover the whole sector involved. Based on this information the deployment will probably come into one or more of the cases quoted below:-

(a) Narrow Razorback.

This is a fair or steep grade with sides usually covered with either secondary growth or bamboo. In such cases the enemy front will be narrow, with prepared positions in considerable depth sited to cover the track and the sides of the razorback on limited approaches.

The most suitable formation is a troop in line ahead and the infantry company deployed with one platoon forward. The leading patrol feels forward abreast of the second tank and once close contact has been made the enemy positions are dealt with in detail. Depending on visibility from the tanks, which is very restricted, their action will be :

(i) Blasting and clearing on either side of the track.

(ii) Infantry working on either side of the track directing fire on located targets.

Target recognition is speeded up if the two leading tanks are given a primary arc of fire on the left or right of the axis of advance. In any case the infantry must advance by fire and and movement and mop up on either side of the track as they progress.

(b) Track along the Side of a Feature or dominated to either Flank by Small Features.

The enemy in such country usually holds the high features with his main defences sited to cover the track. The formation and tactics are similar until close contact has been made, then depending on the size of the feature, the infantry clear the high ground. Early recce is essential so that the tanks do not go beyond a point where they cannot move from the track on to the dominating flank. If the feature is large, speed will be gained if a second infantry company and troop of tanks are immediately available to move to the flank in conjunction with the frontal attack.

(c) Attack up a Slope to Breach Main Defended Line and Exploit.

Depending on the size of the feature or the extent of the vital ground to be held, the enemy may develop a strongly held perimeter with local reserves for counter attack. The depth of the defences will depend on the number of troops available to hold the ground and adequately cover the main lines of approach.. Such defences may be so disposed that the flanking moves are impracticable. One suggested method of attacking defences of this nature is by a frontal assault on a selected approach to pierce the perimeter and capture a bridgehead, from which to exploit to flank and/or to the vital ground. Detailed plans and preparation will be necessary. Preliminary engineer work will be necessary as such an attack would require three troops of tanks. The exploitation to a flank or along the general line of the perimeter will depend largely on opportunities after the initial bridgehead has been secured. Speed, flexibility and close co-operation are essentials in an attack of this nature.

(d) Covering Fire when Tanks cannot move onto the Objective.

It has been found that tanks can be used to provide close, accurate, neutralising fire, when they are not able to move on to the objective.

The plan hinges on getting the tanks into fire position where at short range they are able to give covering fire with direct observation until the last second. By using Besa tracer the tanks can provide lanes of fire between which the infantry can advance. By using 2 pr high explosive, then solid shot as the troops get close and finally Besa directly into bunker openings, the infantry can advance to the objective area before the neutralising fire is lifted. Accurate timing and a clear indication of the end of the covering fire programme is essential. The order to stop can be passed by Walkie Talkie and a suggested indication is a short burst of Besa and 2 pr armour piercing at 45° above the objective. Depending on the circumstances, the fire of the tanks may be supplemented or extended with medium machine guns.

Tank in Defence.

41. While infantry troops are at all times responsible for the immediate close protection of the tanks, the fire power and at times the mobility of the tanks should be used in defensive positions. Their weapons should be given definite fields of fire in the defensive system and if ground permits they may be given a counter attack role with the infantry.

42. During an advance it is probable that a main axis and supply line will be developed which, as it lengthens, will become vulnerable from the flanks. As it is difficult to ensure the safety of such an axis, unless adequate infantry troops are available, a defensive plan may be required, based on the minimum number of troops. Under these conditions it is considered that suitable detachments of infantry and tanks, preferably tactical groups, working from prepared defensive areas approximately 1000 yards apart could carry out the task. By a system of infantry patrols with suitable communications, a strong force of infantry and tanks are readily available for a quick counter attack. While it is possible for the enemy to infiltrate, or work a party to the rear, with the object of cutting the track, they will require a certain period of time to reorganise, prepare their position and dig in. With adequate patrolling the enemy should be denied this time and could quickly be dealt with by the infantry and tanks working from the nearest patrol base.

Engineer Tasks.

43. It is considered that a complete field company with an allotment of mechanical equipment, depending on the terrain, is essential on a brigade basis when tanks are employed. Apart from detailing detachments to complete tactical groups, continual supervision, work and maintenance is required further back to ensure the supply line to the scene of action. While the main engineer task is the preparation and construction of tracks, they will be called upon to undertake many and varied smaller tasks of vital importance. To ensure close co-operation and speedier work it is necessary for the field company commander to be fully in the picture, particularly with regard to the role of infantry units, proposed actions, and maintenance situation.

44. Some of the more important tasks carried out in recent operations are listed below:-

(a) Engineer advice, recces and the preparation of routes to forward assembly areas.

(b) Felling, levelling and clearing with corduroy where necessary. The most suitable corduroy was found to be 4 inch logs 9 inches or 1 foot apart, bedded in by tractor or by leading tank.

(c) Building up or making safe doubtful narrow sectionsof track or possible land slides.

(d) The siting of bulldozers or tractors on bad sections of tracks to assist the tanks to negotiate them.

(e) Recovery of tanks.

(f) Clearance of tank obstacles with facines, clearing and filling craters. If necessary engineers should be prepared to blow a disabled tank clear of the track if it cannot be quickly recovered or by-passed.

(g) Mine clearing.

Forward Area Training.

45. Forward area training as distinct from general training with tanks should be in preparation for the specific tasks involved in the proposed operation. For this reason it is essential to have air photos of the operational area from which large and table models can be made and similar ground selected for training exercises. In this section it is intended to stress only the main points of the training as the detailed notes are attached.

46. In forward area training it is essential for the tactical groups to be properly "married up" the tanks, engineers and the infantry should live and work together in order to fully understand their respective limitations and characteristics. In the training, seemingly impossible tasks should be attempted, so that the tanks crews and the engineers gain a better working knowledge of their equipment and are able to judge what really can be done in action. Tank crews particularly require this training in preparation for close contact engagements where the infantry will so often direct their movement and fire. From the engineer point of view it is essential to gain experience in assessing the time factor for all tasks with tanks, and, by experiment, to determine the best methods of assisting tanks over difficult terrain with bulldozers and tractors.

47. Co-operation.

The closest possible co-operation within the tactical group has been mentioned and is again stressed for the following reasons:-

(a) At all times in action alternative plans must be made and put into execution with the minimum delay, to take advantage of the situation as the action develops with either infantry alone, or tanks and infantry.

(b) The protection of the tanks is an infantry responsibility at all times. Therefore it is necessary to consider carefully the position of each tank in a forward company perimeter to ensure that it is protected and at the same time plays its part in the general defensive fire plan. The tanks must also be given counter attack roles, depending on the ground.

(c) If tanks are temporarily out of action in a forward area, they must be included in a perimeter if possible or at least adequately covered by fire with necessary booby traps and alarm trip wires. If the tank should be temporarily abandoned, as in the case above, breech blocks etc should be removed and the tank locked down.

(d) In action, and along tracks, there is always the risk of the Molotov type bombs being used at close range. To guard against this the second tank can largely protect the first in line ahead. In other formations infantry must be detailed to remain close to each tank for its own immediate local protection.

(e) Tanks staging on the lines of communication, moving at night to assembly areas, or in the process of recovery, will require similar protective escorts, and tank officers must ensure that such escorts are provided when and where required.

(f) In action one axis will generally be used for the supply and maintenance of tactical groups. While priorities must be allotted, in general every jeep or tractor trailer load must be considered for the group. The evacuation of wounded will normally be back through the battalion regimental aid post, and any carrying parties necessary for any commodity required forward will usually come from the battalion.

(g) With practice and experience the tactical group becomes a team with a team spirit which counts for so much in close fighting.

Additional Correspondence.

48. The following additional correspondence has already been submitted to NEW GUINEA Force :-

(a) "Report on Tank Operations and Lessons" under cover of Adv 2 Aust Corps G/435/Ops of 5 Jan 44 and amended by G/555/Ops of 4 Mar 44.

(b) "Tank Operations - NE GUINEA" under cover of Adv 2 Aust Corps G/415/SD of 9 Feb 44.

(c) "Tank Tactics" forwarded under cover of Adv HQ 2 Aust Corps G/470/SD of 4 Mar 44.

Training the Tactical Group.

49. The detailed training of the tactical group in a forward area takes from a minimum of three to seven days. With the tactical group comprised of one infantry company, one troop of tanks and a detachment of engineers, a battalion can be trained in four groups depending on engineer resources.

From the outset is is essential to have a trained cadre with a prepared and co-ordinated programme to ensure uniform instruction.

50. Certain preliminary work should be carried out preparatory to assembling for detailed training. This particularly applies in the case of tanks and engineers who will be called upon to demonstrate their equipment to the infantry. Infantry work should concentrate on contact drill, fire and movement, recognition and indication of targets and practice with wireless.

51. The training area should resemble the terrain over which the proposed action is to be fought and steps must be taken to deny the enemy ground or air observation. If captured enemy positions are not available or suitable, these should be prepared in advance. Similarly a large model should be prepared for preliminary exercises and study.

52. The following three day syllabus is offered as a guide only, and will depend on the nature of the operation:-

Day 1.

(a) Opening lecture stressing team work co-operation and scope of training with group.

(b) Demonstration of tank fire power and mobility over difficult ground. Demonstration against bunkers. Demonstration of engineer equipment and employment. Demonstration of contact drill, fire and movement.

(c) Tactical layout and demonstration of communication system including W/T procedure with tanks.

Day 2.

(a) Tactical formations.

(b) Recognition and indication of targets to tanks by infantry. (Continued practice is essential for speed and accuracy)

(c) Sand model exercise.

(d) Wireless procedure.

(e) Short tactical exercises stressing distances, fire and movement, indication of targets to tanks.

Day 3.

Continuous all day exercise practicing line ahead formation along a track. Several separate "actions" can be fought involving the full deployment of the company and the troop of tanks. Tank ditches and mines should be encountered in the advance. Depending on time available the work should include repititions of Day 3 under varying circumstances to include some or all of the following:-

(a) Formation of perimeters

(b) Replenishment in action

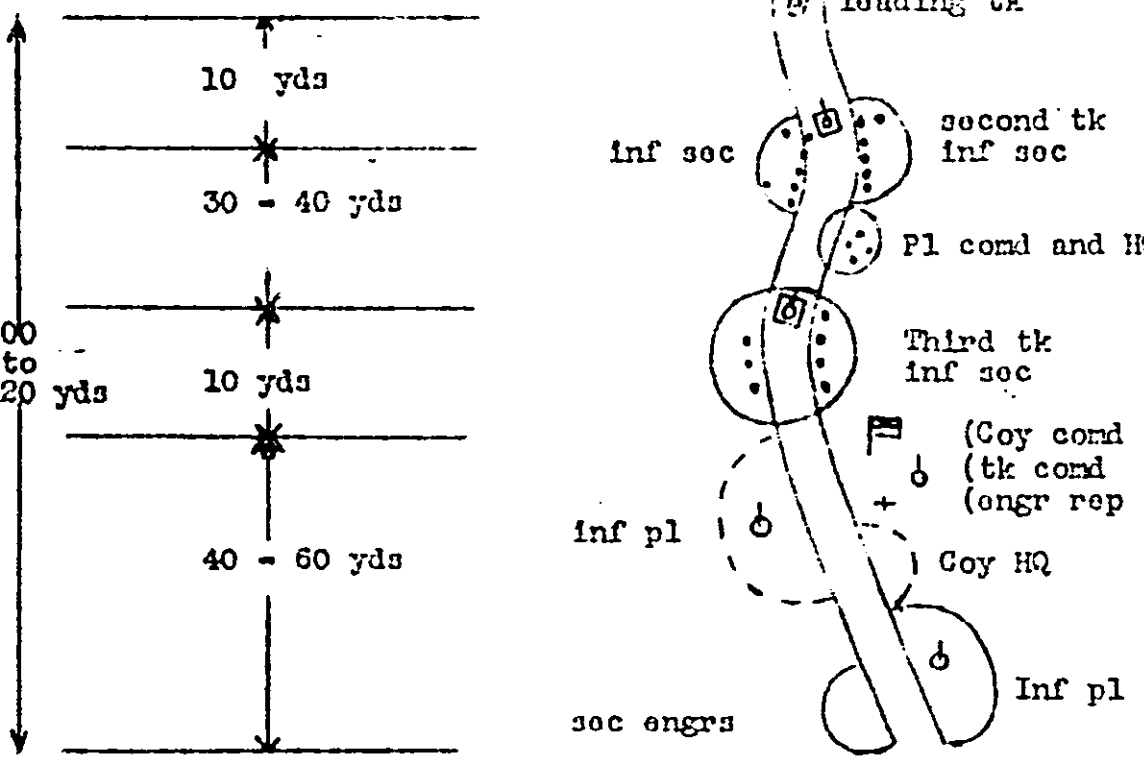
(c) Passing through a second troop of tanks

(d) Encirclements by platoons and with another group

(e) Formations over varying terrain

(f) Improvisations with communications and casualties both to infantry and tanks.

53. The following diagrammatic layout is given only as a guide for an advancealong a track. Distances will vary depending on the terrain.



Notes:

(a) The distance between tanks and sub units will depend entirely on visibility, cover and the nature of the track.

(b) The diagram shows one infantry platoon forward - depending on the nature of the ground, two platoons may be forward to speed up clearing and mopping up.

(c) The leading tank should be 10 to 15 yards ahead of the second tank and forward section. The leading tank is covered by the second and by infantry fire. It is essential that the two leading tanks have at least 180 degrees arc of fire without danger to our own troops.

(d) The leading platoon commander with wireless is well forward to obtain early information and direct fire of the tanks.

(e) Company Commander and tank commander with engineer representative are forward to co-ordinate the action and make quick decisions.

(f) The third tank is in a position to move forward if required or with the second can move to a flank with one or two platoons which are immediately available for such tasks.

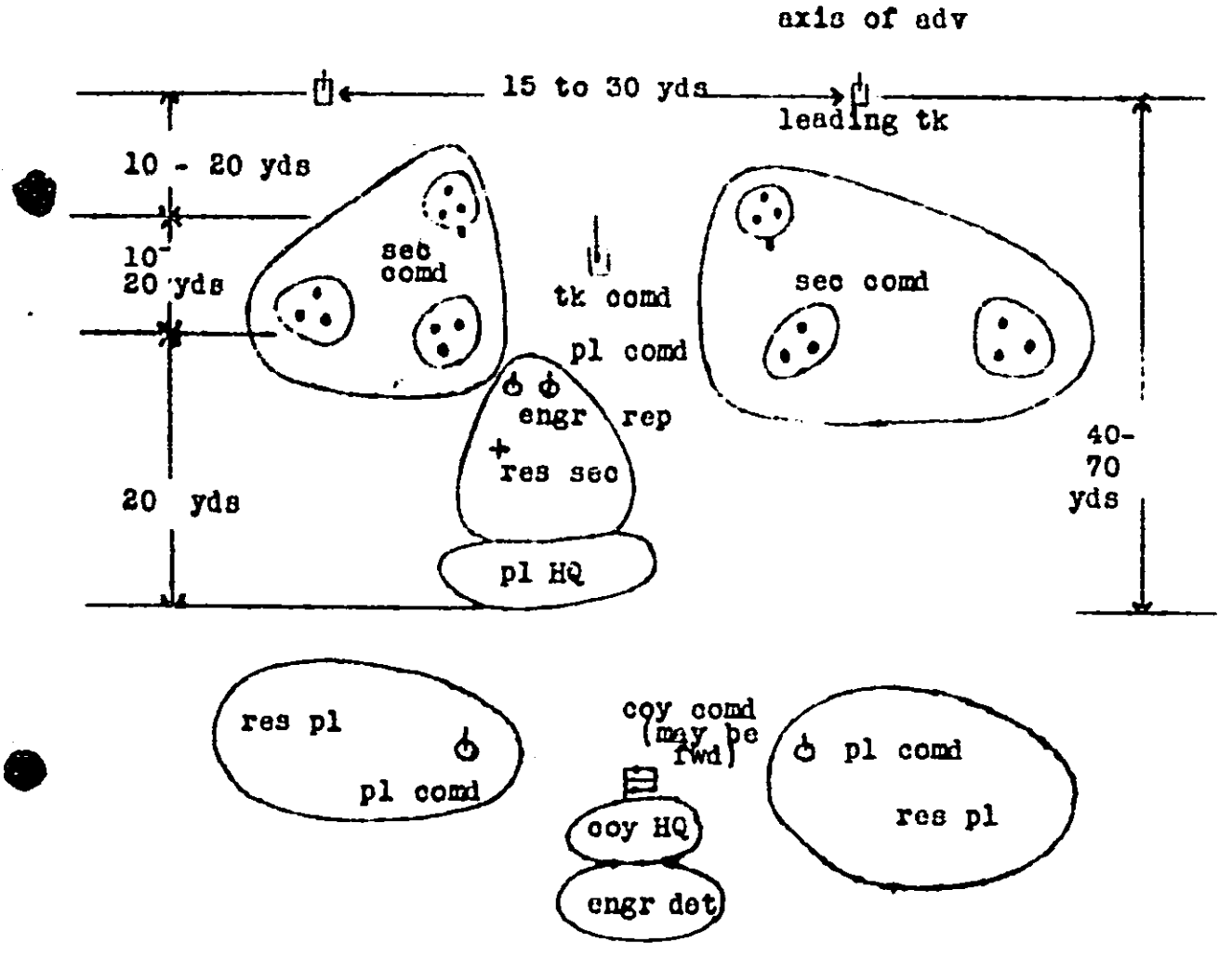
(g) Section of engineers may move with stores at the rear of the company or in any case would be on immediate call with the rest of the detachment working on the track behind the company.

(h) The tank troop commander should be on foot with the infantry company commander where he can best direct the troop.

(j) The quantity of ammunition carried in a tank is limited and expenditure must be carefully checked by troop commanders.

(k) The highest standard of maintenance is essential particularly before tanks go into action and tank officers should ensure that mechanics and specialists, with replacements and replenishment, are close to the scene of action to take advantage of every opportunity offered for the carrying out of their tasks.

54. In open country the following diagrammatic layout is given as a guide:-



The essential is that while some infantry troops are detailed for the close protection of the tanks, and must keep them in sight, the remainder can make better use of ground by fire and movement, and can cover more ground to a flank. In the above diagram the leading sections are shown in three groups of which the

leading one in each case would have the role of close protection for the tanks. With two platoons forward the dispositions would be similar depending on the extent of the open ground and mopping up required to the flanks. As a general guide the leading tanks will be in advance of the leading infantry and on a front age which allows mutual support. The third tank in this formation is in position to support either of the two forward tanks.

SECTION 8. AIR.

Direct Air Support.

1. The Air Liaison Party (ALP) communications net worked very well with the exception that it is considered too slow to be of immediate value when dealing with 'opportunity' targets. The cipher system (Cipher Device 209-E) being a letter code is more cumberseme than the figure code.

2. For future operations it is recommended that a "brevity" air support code similar to the 'British Recce Code' be reintroduced. By the adoption of this code the time lag of enciphering and deciphering each request would be avoided.

3. The ALP does not provide for an establishment of an Air Force officer further forward than Divisional headquarters. It is recommended that an Air Force Officer with sufficient rank and practical air experience and whose opinion as to whether the target which is selected, is an 'Air Force' target, would be acceptable to the Air Force headquarters, be attached to Brigade headquarters as a direct adviser to the Commander. The question of availability of aircraft would only then remain to decide whether the strike would be undertaken.

4. In some requests for air support during the campaign as many as six to eight targets in a request were forwarded by Division. This did not prove satisfactory. It is recommended therefore, that in normal circumstances the number of targets be restricted to three for each request.

Army Co-operation.

5. The attachment to each Division of a flight of 4 AC Squadron (consisting of six BOOMERANGS and two WIRRAWAYS) proved of immense value. Pilots and gun crews soon established excellent liaison.

Communications.

6. Due to the fact that the advanced operational base (AOB) for these flights was beyond direct telephone communication, an Air Force Officer from the Squadron with sufficient signalling equipment and personnel was also attached to each Division. As a consequence Divisional headquarters were able to have the complete report of all tactical recces as soon as the pilot had returned to base and had been interrogated by the Air Liaison Officer. It was also the practice to drop primary tactical reconnaissance reports on both Brigade headquarters and Divisional headquarters.

There is no allocation on either the war establishment of an AC Squadron or in Divisional signals for these wireless links and it is recommended that representations be made to Air Force headquarters to provide for this establishment.

Tactical Reconnaissance.

7. No use was made of the SWPA Simplified Air-Ground Panel Code. It is considered too cumbersome for practical purposes in close country.

Artillery Reconnaissance.

8. In the main it was found that the No 11 wireless set was inadequate for artillery reconnaissance in the jungle. Tests carried out with No 19 set were excellent, and it is recommended that the existing No 11 be replaced by No 19 for artillery regiments.

Flying Observation Post.

9. Owing to the distance of the advanced operational base from the area of operations, the need for a light liaison aircraft for 'immediate targets' was very apparent. In many cases targets presented themselves but had disappeared by the time our artillery reconnaissance aircraft were overhead, and ready to engage. It is recommended that two liaison aircraft (US 'PIPER CUB L-5' but preferably the British version 'AUSTER' due to the fact that the latter aircraft has side by side seating and NOT tandem.) be issued to each Artillery Regiment, these to be flown and operated by the regiment as an integral part of their equipment.

Army Co-operation Aircraft.

10. The AC Squadron is equipped with BOOMERANGS. These are **not** suitable aircraft as they can only operate by themselves in areas free from enemy opposition; in fact throughout the campaign they DID operate practically continuously in enemy held country with fighter escort. It is sufficient to say that the escorts destroyed 26 enemy aircraft. It is strongly recommended that representations be made to have these squadrons re-equipped with any of the following aircraft in the order of preference shown:

1. MUSTANG (P 51 or A36 - US)
2. MOSQUITO (De Haviland - British)
3. BEAUFIGHTER (Bristol - British)

An alternative, using the present equipment of BOOMERANGS, would be to attach a squadron of fighter aircraft which would be responsible only to provide fighter escort for the tactical reconnaissance or artillery reconnaissance

Intercommunication Aircraft.

11. Due again to intercommunication difficulties it became essential to have some light liaison aircraft attached to each Divisional headquarters. This was accomplished by obtaining a PIPER CUB. It was found however, that one for each Division was not sufficient. The aircraft was used by Staff Officers, Liaison and Engineer reconnaissance. It is recommended that an inter-communication flight be made available to Corps or equivalent headquarters on the following basis:-

Two Four seater twin engine type (for use by Commanders) similar to the BEECHCRAFT 'TEN'

Six Liaison aircraft (US PIPER CUB L-5 type or British 'AUSTER' for suballotment to Divisions for use by staff officers and despatch rider letter services.

Aerial Photography.

12. Supply.

It is considered that two complete coverages of an area of operations are essential PRIOR to the commencement of an operation:-

(a) Scale of 1/40000 (Tri-metric) Survey
(b) Scale of 1/10000 Complete stereo coverage which is suitable for all general purposes.

13. Further copies of a larger scale should be also available of selected areas for stereo examination. Low-level obliques for beach landings also proved of great value.

Control and Distribution.

14. G (Air) Section controlled all photography and was responsible for its distribution. Without 1 AAAPIU the full use could not have been made of operational photographs. The system of distribution was that the AAAPIU would immediately annotate one set received at Corps headquarters, and this set, when completed, would become available to Divisional headquarters. At times it was not possible to obtain the full numbers of prints required as the photo section attached to Advance Echelon 5AF only provided initially for the reproduction within its own units. All negatives were returned to the mainland within 48 hours of their exposure. If further prints were required by Corps headquarters it was then necessary to demand on the Central Interpretation Unit at GHQ. This entailed a delay of anything up to ten days, which meant that the value of the photographs had considerably diminished and in many cases vanished altogether by the time they were received at Divisional headquarters. It is recommended that a Photo Section which would be capable of handling and processing considerable quantities of aerial photographs be established in the forward areas.

Photographic Aircraft.

15. Whilst the supply of photographs was excellent throughout, for future operations it is recommended that an increment of photographic aircraft to meet army requirements only, be attached either to an Army Co-operation Squadron, or to the nearest photographic recce unit.

Lithographed Photomaps.

16. Due to the fact that the negatives of photographs were not available to the Topographical Survey Company the results in reproduction of all lithographs were generally of poor quality. Considerable use was made of lithographed photomaps during the advance to SIO where little up to date mapping information survey had been possible.

Lithographed Air Support Photo (ASP)

17. Although reproduced in large quantities, were used only on two occasions. It was found both by air crews and ground troops, that if a photomap was available, then the use of the oblique ASP diminished, except for initial assault in amphibious operations.

General.

18. Had a photo section been available in the forward area reprints of negatives required could have been reproduced and the benefits would have been felt throughout by the Divisions.

Conclusion.

19. The liaison established between Air Force and Army units, in the attachment of Air Force Officers to Army formations and vice versa was responsible for the success of the results achieved. This could be brought to even a higher standard by:-

(a) The attachment of an Air Force Officer to forward formations, whose opinion as to whether a target is an 'Air Force' target is acceptable to Air Force headquarters.

(b) The provision of the photo section to enable reprints of negatives to be used in the preparation of photomaps which were found to be of such value both to the ground troops in the selection of targets, and by the aircrews in having the target actually pinpointed on a reproduction of the country over which they are flying.

SECTION 9. "A" BRANCH.

MEDICAL

Establishments.

1. The role of a CCS with a prescribed capacity of 200 beds has seldom if ever been assumed during this war. Frequently the function of a General Hospital has been fulfilled by a CCS in the field, without nurses and without comparable adjustment, of WE or WET. As a consequence, in this campaign, one CCS maintained more than 1000 occupied beds and three other CCSs more than 600. This has been possible only by the attachment of various personnel drawn from miscellaneous medical units and the continued addition of ordnance equipment far beyond prescribed authority. It is recommended that the function, the WE and WET of a CCS be reviewed. To maintain an adequate medical service under conditions of high wastage it is recommended that 50% MOs and key technical personnel be carried forward supernumerary at the commencement of operations or be available in a readily accessible reserve. The implementation of malarial precautions is not the responsibility of the Medical Service. The medical administration of AMCUs has fostered a general misconception in this regard. Many of the duties of an AMCU are of an engineering nature, and the RAE who have more ready access to the means, have always been most co-operative in the solution of such problems. If this important work were performed by a "G" service the operational responsibility would be manifest. It is recommended that AMCUs as at present establishment be under command of, and administered by, RAE.

MALARIA.

2. During the four months ending Dec 31 among troops under command one Division approximately 600 men were killed or missing and 12,600 men were evacuated beyond unit lines. Of these approximately 1600 were wounded and 11,000 sick; of the sick at least 6000 were malarial cases, and although the death rate was practically negligible, the average period of inefficiency has been at least four weeks. While a certain incidence of malaria may be expected during operations in a highly malarious area, it is considered that greater efforts must be made to overcome the difficulties of prevention. Anti-malarial supplies were sufficient. It is recommended that the allocation of AMCUs with a Corps be:-

(a) Corps Troops One A class unit, under Corps command.
(b) Each Division. Three A class units under Divisional command.

Consideration by the General Staff of the malarial problems in the selection of a camp or bivouac site has proved of great value and should be a routine as was laid down in the MIDDLE EAST.

DENGUE.

3. The possibility of a high wastage from Dengue should always be considered in operations in a tropical area.

TYPHUS.

4. It is recommended that before troops enter a Typhus infected area, they be trained in the application of repellant, and their clothes be adequately treated. It is essential that supplies of repellant be maintained.

MEDICAL INSTALLATIONS.

5. With the inevitable high rate of sickness, in order to maintain an adequate fighting force it is necessary to treat casualties and return them to units as rapidly as possible. It is recommended that General Hospital and Convalescent Depot accommodation equivalent to 10% of force engaged, be installed at the earliest opportunity, and sited so as to reduce the means of transport, sea and air, to a minimum.

EVACUATION.

6. When the usual means of evacuation, Motor Ambulance Convoy, and ambulance trains are replaced by sea and air transport not under command the date and destination of evacuation becomes unpredictable. It is recommended that before any operation is commenced adequate means of evacuation be allotted for the purpose and placed under command. Various methods of converting jeeps and barges for stretcher carriage have been introduced. It is recommended that a standard method be determined.

TECHNICAL.

7. The standard of surgery in the field must be raised and it is essential that surgical teams allocated to forward medical units be adequately trained. It is recommended that a Divisional Surgeon of at least Lt-Col rank be attached to ADMS staff during operations, to direct forward surgery and to train men under

actual battle conditions. The attachment of a Mobile Bacterial Laboratory to a Division would greatly enhance the pathology essential in forward areas. A highly trained pathologist could direct the field work and train others in this duty. It is recommended that a Mobile Bactereological Laboratary be included in a Divisional Order of Battle during operations.

Red Cross.

8.. The situation has long been reached when satisfactory medical service during operations is possible only with the availability of Red Cross facilities. Within field formations this service can be used to advantage only if placed under direct medical administration, with Red Cross representatives on the various Medical Staffs and in the various units. The same standard of fitness is demanded of these representatives as is required by those whom they serve. All of these lessons have been previously recorded but attention is again directed in order that the burden - inevitably heavy under tropical operational conditions - may be lightened for those who follow after.

It is fully appreciated that any success of the Medical Service is achieved only by the splendid co-operation of the various Staffs, Branches and Services.

SECTION 10. "Q" BRANCH.

A. ORGANISATION AND POLICY.

1. Allotment of Craft.

(a) The "Q" administration of the 9 Aust Div operations at LAE and in the early phases of the FINSCHHAFEN operation was made difficult by the fact that the operations were governed more by shipping availability than by the size and composition of the force which was considered necessary for the operation. The worst result of this limitation was that it was necessary to leave, in areas in rear of forward troops, administrative personnel and many essential vehicles including the majority of workshop vehicles.

(b) The limitations of sea transport for the initial assault and for resupply were accepted during the planning stage in order to speed up the operation. Resupply was therefore uncertain. The result was that the Division was always looking backward, fearful of a breakdown in resupply, and chary of attempting venturesome planning the success of which depended on readily available and adequate reserves.

2. Beachhead Organisation.

To free the Division from the continued responsibility for the initial beach head once it is firmly established and its maintenance areas functioning, it is essential that units organised to take over the administrative installations be used for that purpose and that beach clearance transport be allotted

independent of Divisional transport. The 2/1 Ordnance Beach Detachment was not used as early nor as adequately as it should have been to control ammunition holdings and deliveries. A greater burden was therefore placed on the Divisional AASC than was necessary.

It would appear that seaborne operations against undeveloped coastlines will involve either:-

(a) intensive inland road work,
(b) beach hopping.

An appreciation of these alternatives must be made before the operation, and adequate provision made based on the appreciation. In the LAE operations, road making and bridging equipment and the personnel to use them were insufficient to permit unchecked progress by land, and beach hopping was essential. The craft available for this type of operation were also insufficient to permit unchecked progress. Delays in operations while troops, equipment, and reserves were brought forward were inevitable. Sufficient craft should be available to cover all these contingencies.

BEACH LABOUR.

3. Beach labour commitments were a constant drain on the effective fighting strength of the Division. The Order of Battle of the Force gave therefore a false estimate of its potential effectiveness. It would facilitate administration if special units were allotted on the Order of Battle to act as pioneer units in the beachhead. For a divisional operation an effective strength of 1000 is considered necessary.

Porters.

4. Fighting strengths were further reduced by using fighting troops as porters, and operations were hampered by a lack of native porters in the early stages.

All the above are major items in policy and organisation either expressed or implied in the 9 Aust Div reports. They are confirmed by Corps HQ experience. In this connection, the lessons to be applied by a Corps headquarters controlling a seaborne operations are given in paragraphs 5 - 8.

5. Allotment of Craft.

Effective control of the "Q" side of a seaborne operation by Corps headquarters required that it must have under direct command or allotted in support, craft sufficient to meet all its anticipated requirements in:-

(a) initial movement,
(b) resupply,
(c) movement of troops vehicles and equipment.

These craft must have no other commitments.

Experience in the LAE FINSCHHAFEN operations indicates that, leaving the initial landing aside, the craft required for these seaborne operations are LCTs and LCMs. It is considered that the watercraft unit operating with the assaulting division did not require LCTs, but that LCTs were necessary under Corps control. It is also considered that the watercraft unit must be a Corps unit, placed if necessary under command of the formation but to be used as Corps headquarters directs. It should not be a normal component of the

Division. It is felt that there were occasions when, if under Corps control, these LCMs might have been allotted for movement of workshop vehicles from L&E rather than supplies from "G" Beach, particularly when Corps headquarters was au fait with the resupply plan and could have diverted at least one LCM mission from "G" Beach to L&E to pick up special vehicles.

6. Beachhead Organisation.

It is evident that a Divisional Headquarters is not staffed to cope with beachhead organisation once operations inland or along the coast commence and the normal maintenance procedure should apply. Once the beachhead is assured it should be taken over by Corps and staffed and serviced by Corps with Corps units, Corps transport, and Corps staff, until the time is ripe for L of C organisation to take over.

Had this organisation been possible, two great advantages would have been gained -

(a) Division would have been relieved of a serious responsibility which strained its resources and divided its maintenance efforts.

(b) Corps would have had more direct and detailed records and returns, the lack of which was a handicap to effective planning of resupply.

The Beach Group to handle the Beach Maintenance Area should contain units of all services sufficient in size to handle all depots, and its staff should contain, if possible, the nucleus of the Base Sub Area.

7. Beach Labour.

It is felt that beach labour units - which should not be employment companies - should be Corps units allotted to Divisions for the initial work in the Divisional Beach Maintenance Area, but reverting to command when Corps takes over the beach maintenance areas.

8. Porters.

Native porters in the theatre of operations must be regarded as a pool to be allotted prior to the operations. This labour must be therefore controlled by Corps for its own formations. Sufficient should be available for direct and rapid allotment as required, close to the theatre of operations.

Particular Points on which lessons have been learned.

1. Loading.

(a) As far as consistent with available packs, loads should not exceed the capacity of two men. As this is not always practicable, it is considered that some form of light mobile crane is required which can unload heavier items and dispose of them quickly.

(b) Loading of resupply craft must be rigidly supervised. Though the capacity of ships was always ascertained prior to allotment of loads, it was often found that this amount could not be loaded. It therefore appears necessary to -

(i) underestimate the capacity of ships

(ii) have certain high priority loads available to fill any empty spaces left over after the billed loading is complete.

(iii) ensure that the loadings are balanced and that the highest priority items are loaded centrally whenever there is any question of shutouts or limited loading time.

(iv) prevent the natural desire of loading parties to leave heavy and difficult items until last.

(c) Conductors are required for all service consignments. They must hand documents to the appropriate officers and ensure that special items are delivered intact to the right destination. Such conductors must be competent and fully briefed, and know which are the essential items and how they are marked.

2. Engineer Stores.

Engineer stores required for the operation have equal priority with other items. The loading of stores required for base development in the same craft as stores for operations was not a success. Independent consignments earmarked for this purpose should be sent forward. All cordage and wire rope should be rolled on sturdy drums. Engineer stores are usually heavy. It is desirable that heavy loads should be broken down into their lowest components.

3. Mail.

In the early stages of a seaborne operation [illegible] mail matter is an embarrassment to the assaulting formation. It should therefore be held out of the formation area, but sufficiently close for rapid forward shipment when it can be accepted.

4. Repair and Recovery

Because of limited craft availability, the allotment of higher priorities to other items, and the hard use of available transport, repair and recovery facilities in both the LAE and FINSCHHAFEN areas were never adequate. Unnecessary deterioration of equipment resulted, and the resulting demands for resupply were in the long run approximately commensurate in space with what was required earlier for the movement of technical vehicles.

5. Ammunition Scaling.

Present WUR rates are not comparable with expenditure rates except for 25 pr ammunition. It is therefore evident that it is undesirable to use these as a basis for operational resupply. It has already been recommended that such supply be on the basis of "refill" rates, and that these be, for one day.

Type	Rounds Per Weapon
.303 bandolier	1
carton	10
belt	100
1" signal	1
9 mm Owen SMG	15
.380	.25
.55 Tank Attack	.25
2" Mortar high explosive	1
Smoke	.1
111 white	.1
green	.1
red	.1

Type		Rounds Per Weapon	
3" Mortar	high explosive	3	
	smoke	.1	
6 pr Tank	Attack high explosive	1	
	armour piercing	1	
	canister	1	
2 pr Tank	Attack high explosive	1	
40 mm	high explosive	12	
	armour piercing	4	
25 pr Shell	high explosive	31	
	smoke	1	
	cartons normal	32	
	cartons super	2	
Grenades	36 M	250	per Division
	36 M 7 second (Rifle)	50	" "
	63	10	" "

These recommendations are in accordance with those submitted in Adv HQ 2 Aust Corps G/380/SD of 2 Feb 44.

6. Equipping.

It is essential -

(a) that the Division be fully equipped with all required items prior to its arrival at its rehearsal and embarkation area;

(b) that all vehicles required for the operation be available in this area at the time of arrival of troops

7. Bivouac areas in Beachhead.

These must be well clear of the beaches so that the almost inevitable bombing and straffing of the beaches will not cause unnecessary casualties, and so that the beachhead area will NOT be cluttered up.

8. S & T service.

(a) Insufficient returns, due in some measure to a staff failure to allow AASC 9 Aust Div to carry out its full service function, made it extremely difficult for S & T service of Corps HQ to exercise the normal control over supplies. In the absence, or because of the inadequacy, of returns submitted, there were occasions when best use could not be made of the space allotted - this occurred particularly on those occasions when balancing commodities, if sent forward, would have improved stock holdings more than did a similar tonnage of balanced commodities.

(b) Increased daily rations of sugar (5 oz) milk (4 oz) and tea (7/16 oz) were recommended by S & T and approved early in November 43. The increases were acceptable and benefited troops. It is considered that in the SWPA this scale should be used for all troops in close contact with the enemy in jungle country.

(c) Fresh Food

Deliveries of fresh food - chiefly meat and butter - sufficient for issue to all troops once or twice a week - began late in October 43, and were of material assistance in improving the ration in quality and variety, and in lifting the morale of troops. Special provision was made for medical installations.

(d) Ration Scales

Some Vitamin B deficiency was reported towards the end of the campaign, and one brigade reported it due to the inability to handle tinned dehydrated vegetables, flour, wheatmeal, oatmeal etc while troops were moving forward in battle conditions. It is considered that where such deficiency is considered likely it can be overcome either by the issue of Thiamin or by the issue of the Field Operational Ration.

(e) Field Bakery

The appreciation shown by troops for fresh bread indicates that the despatch of Field Bakery detachments as soon as possible after a beachhead is working is of great benefit to morale.

(f) Unbalanced Commodities

A balanced ration pack for initial supply and as a Divisional reserve is considered desirable, though it is appreciated that the difficulties of manufacture of this pack would be considerable.

The unbalancing of stock holdings due to pilfering, deterioration, loss, and short drawings was a continual source of worry.

(g) Increase in Units

Recommendations have already been forwarded for an increase in Supply Depot Platoons from 6 to 8, and of the General Transport Company from 3 to 4 platoons, the additional platoon being equipped with 2½ ton GMC load carriers. (See Adv 2 Aust Corps G/456/SD of 1 Mar and G/426/SD of 17 Feb 44.)

9. Ordnance Services.

(a) The normal War Usage Rate scaling for ammunition and ordnance stores was not found satisfactory and it is considered that each item should be scaled separately having regard to the type of operation.

(b) Non-Standard Equipment

The provision of non-standard equipment made maintenance extremely difficult, especially for American 2½ ton GMC, wireless sets and DUKWS. It is considered essential that for such equipment, there should be available at the commencement of an operation, three months' supply of spare parts and maintenance equipment, or three months maintenance supply of complete equipments.

(c) Packages

(i) Ammunition - all packages should be tropic and waterproofed;

(ii) Ordnance Stores - no loads should exceed a two man lift, and all packages should be securely wired. Heavy items such as bootplates and hods should be in tongued and grooved cases made of 6" x 1" wood;

(iii) Markings - all stores should be marked with group numbers, and cases given a serial number which is recorded on consignment note.

(d) Method of Demand.

The system of forwarding stores in accordance with demands from the division was found satisfactory. Ordnance services at Corps Headquarters decided on the priorities of the items required, basing their decision on the demands received.

10. AEME Services.

(a) 2nd Echelon repairs are required with the assaulting force NOT later than H + 20 hours

(b) Brigade Workshops should have a light section equipped with jeeps and trailers filled with light machine tools to allow them to cope with forward work.

11. Air Deliveries.

Special urgent items were flown into the aerodrome nearest the division and then forwarded by small craft. As it was not possible to find a conductor with all such items, and representatives of the services concerned were NOT always available at intermediate points, delays and losses were caused.

These faults were overcome to some degree by -

(a) placing the responsibility for on forwarding on the formation controlling the area;

(b) placing a representative of the Ordnance Service at LAE to control on forwarding from LAE to FINSCHHAFEN;

(c) using conductors or safe hand where possible

12. Salvage.

One salvage unit could not cover the areas traversed by the Division in operations, and it is considered that once the beachhead is established, the Divisional Salvage Unit requires reinforcing by a detachment of a Corps or L of C unit -

(a) to handle movements out of the area, and
(b) control any Salvage Depot

Conclusion

It is to be noted that many of the points referred to above are not considered to be new lessons. Many are already detailed in Combin Operation Pamphlets

viz -

(a) personnel and equipment for manning dumps in the Beach Maintenance Area should not be found from units of the Assaulting Formation, and should be part of a Beach Group specially created for the operation and trained with the assaulting formation. This Beach Group includes a transport echelon for beach clearance.

(b) such units are under Command Principal Military Landing Officer, who though placed during the initial stages under the Commander of the Assaulting Formation, is nevertheless a Staff Officer of the Force HQ and reverts to their command when Force HQ takes over.

(c) personnel should be included in the Beach Group who can form the nucleus of a Base Sub Area.

B - S & T SERVICES

Maintenance of 7 Aust Div

1. During the period 7 Aust Div was under command 2 Aust Corps, 8 Oct - 6 Nov 43, maintenance was by aircraft operating from NADZAB, and landing at DUMPU, with occasional dropping missions forward of DUMPU, and on several occasions by aircraft flying supplies direct from LAE to DUMPU.

2. 3 Aust Air Maintenance Coy, located at NADZAB, operated under command DDST 2 Aust Corps, and carried out the normal tasks of an air maintenance company. All supplies forwarded to 7 Aust Div were handled by this company, mainly from the company location at NADZAB, but on some occasions by a small detachment of the company operating at the LAE airstrip.

3. Stocks of 3 Aust Air Maintenance Coy during the period were replenished entirely by air, by aircraft from DOBODURA and MORESBY, and during the later stages from LAE.

4. Owing to weather conditions and/or shortages of aircraft, target figures for stocks at NADZAB were at no stage achieved during the period, and generally maintenance was operated on a very slender margin of stocks held by 3 Aust Air Maintenance Coy.

5. DADS 2 Aust Corps acted as regulating officer at NADZAB, and was responsible for demanding replenishment stocks for 3 Aust Air Maintenance Coy, demands being placed daily on both DDST NEW GUINEA FORCE and DDST 2 Aust Corps. The regulating officer received demands from 7 Aust Div, and arranged forwardings in accordance with these demands after taking into account availability of stocks at NADZAB. Units in and around NADZAB had also to be maintained ex 3 Aust Air Maintenance Coy stocks, average feeding strength for these units being approximately 2,500.

Maintenance of 9 Aust Div.

1. At all stages maintenance of AASC supplies to 9 Aust Div was by water transport, except when on several occasions air-dropping was carried out to supply units or detachments temporarily cut off from normal maintenance, and when air transport was used for fresh supplies.

2. During the period of the "G" Beach - LAE operations, and the early period of the FINSCHHAFEN operations, it was found that most demands and information regarding stocks held were coming through "Q" channels, and the demands and information received were generally delayed and insufficient to work upon satisfactorily. Under these conditions, it was at times difficult to utilize available shipping space to best advantage.

3. Owing to shut-outs at points of loading, generally at BUNA, and craft not being completely cleared at beach of unloading, rations received by 9 Aust Div were very often unbalanced in many commodities. Stocks held by 9 Aust Div were consequently unbalanced to quite a large degree, and it was essential to utilize shipping space with quantities of individual commodities required to balance, before forwarding further balanced rations. Owing to difficulty in obtaining prompt and adequate information, as outlined in paragraph 2, it was necessary at times to forward balanced rations when the forwarding of individual commodites would have given the Division a better availability of stocks for immediate issue as a balanced ration.

4. The amount of shipping space available at most times was insufficient to ever place at destination the quantity of reserves laid down. Only once, were the holdings by 9 Aust Div of AASC supplies up to the reserve figures laid down. This occasion was in early December 43 when stocks of rations, expense stores and POL were built up at FINSCHHAFEN to over 30 days holdings for 9 Aust Div. This level however dropped again gradually during the remainder of that month, until such time as supplies were received from the "Henry L. Abbott" the first Liberty ship to unload Australian stores at FINSCHHAFEN.

General.

1. Immediately 2 Aust Corps assumed command of 7 and 9 Aust Divs, steps were taken by DDST 2 Aust Corps to have the scale of issue of tea, milk and sugar increased for forward troops. An increase to 5 ozs sugar, 4 ozs milk, and 7/16 oz of tea per man per day was approved by NGF for troops of 7 and 9 Aust Divs whilst on operations. These increases were found to be of great benefit in assisting to maintain the high standard of rationing which pertained during the whole period.

2. Every endeavour was also made to have as much fresh food - mainly boneless beef and butter - forwarded to 7 and 9 Aust Divs as was possible from available stocks and availability of suitable transport. In the case of 7 Aust Div, the fresh food was flown ex MORESBY or DOBODURA to NADZAB and thence to DUMPU. In the case of 9 Aust Div, it was flown to LAE and thence transported by sea to the Division either at "G" Beach or later at FINSCHHAFEN. Towards the end of December 43, fresh food was flown direct to DREGER airstrip near FINSCHHAFEN.

3. Included in forwardings of fresh food, were special meats and other commodities for consumption of patients held at MDSs and CCSs.

Main lessons learnt from operations, as regards functioning of S & T services in rear of division.

1. It is essential that adequate reserves be held forward to allow for periodic difficulties often experienced in maintaining a regular flow of replenishment. Shortage of availability of aircraft and weather conditions often making flying from MORESBY to NADZAB impossible, precluded adequate stocks being built up at NADZAB, and generally maintenance for 7 Div was carried out on a slender margin of stocks. Similarly shortage of shipping space, shut-outs etc, generally precluded adequate reserves being maintained forward for 9 Aust Div.

2. With the necessity to utilize to best advantage all available means of forwarding, it is vital that accurate and adequate information as to stocks and requirements be passed promptly back from forward formations.

3. Detailed and full information of stocks and requirements can be more satisfactorily and expeditiously passed direct through service channels. "Q" staff on Divisional and Corps Headquarters should be kept informed daily of all required information by the S & T Service representative on their respective Headquarters.

4. Normal principles of maintenance and functioning of S & T Services as laid down in Field Service Regulations still apply even when the control of supplies and the control of transport in third line are divorced, owing to use of sea and air transport.

C - ORDNANCE SERVICE.

1. This report deals with the supply of Ordnance stores and ammunition and covers the principal points on which lessons have been learned from this operation. It is realised that the maintenance of ordnance stores and ammunition for formations engaged in amphibious and jungle operations will vary considerably for many reasons, the principal of which are: type of operation, distance from base of supply, type of craft available for maintenance, unloading facilities; and comments submitted will not always apply.

2. Initial Scaling of Ordnance Stores and Ammunition:

The initial scaling for the operation was laid down by General Staff by days War Usage Rate for both stores and ammunition. This method is not completely satisfactory as experience has shown that the standard War Usage Rate did not apply to amphibious operations carried out, and it is therefore considered that each type of ammunition and item of ordnance stores should receive separate consideration and scalings based on standard War Usage Rate varied to meet any particular conditions which it is anticipated may be encountered. The scaling, of course, will be dependent on the amount of tonnage available in the landing craft being used for the operation. It is particularly important that equipment be confined to standard makes and types as considerable difficulty was experienced in having to maintain non-standard equipment and Motor Transport. Two of the principal difficulties experienced were the supply of spare parts for American wireless sets and GMC trucks. It is essential that all American equipment taken over for Australian Forces be complete with -

(a) sufficient spare parts and maintenance equipment for at least three months, or

(b) three months maintenance supply of complete equipments.

3. Beach Detachment.

2/1 Aust Ord Beach Det was on the Order of Battle of 9 Aust Div, but due, it is understood, to lack of space on the landing craft this unit was not used in the initial operations in the Finschhafen area, but was brought forward some considerable time later when beachheads had been established. If it had been possible to take this unit in on, say, D or D plus one day, it is considered that many of the stores and ammunition problems which arose may have been met "on the spot" due to the presence of trained ammunition and stores personnel. As it was, reserves of ordnance stores had to be maintained in an ADOS dump using ADOS staff which is not designed for this purpose, while ammunition was carried by Divisional AASC who were, in effect, carrying out the functions of respectively, ordnance and ammunition sections of the Beach Detachment. As Divisional AASC ammunition personnel were not sufficient in numbers to, in effect, run a Field Ammunition Depot, and ammunition points, one result of the non-employment of the Beach Detachment was evident in the considerable quantities of ammunition dumped at various points. To a lesser degree the same applied to Ordnance Stores, especially boots and tentage.

4. Coverage.

The FINSCHHAFEN and LAE operations both proved conclusively that it is essential that all stores and ammunition sent forward with the initial landing group must be accompanied by sufficient tarpaulins to provide cover while in transit on the landing craft and later on the beach. This also applies to stores being sent forward as maintenance stocks after consolidation of the beachhead, and all such stores must be covered and tarpaulins should be landed with stores until such time as the Ordnance representative in the area advises that no further tarpaulins are required, when arrangements should be made for tarpaulins used for covering stores going forward to return with conductors mentioned in paragraph 6 below.

5. Packages.

(a) Ammunition

It is understood that arrangements are already in hand to provide tropic and water proof packages for ammunition.

(b) Ordnance Stores

It is essential that no packages going forward for delivery to a beachhead exceed 60 lbs, as the majority of off-loading has to be done by manpower and experience has shown that whereas one man can get out of a tossing landing craft without dropping his package, where packages are being carried by two or more men a large number will be dropped in the crossing from the deck to the ramp. All cases should be securely wired by two wires running longthways and at least two across the breadth of the case. If heavy items of stores such as boot-plates or hobs are sent forward it is necessary that they be packed in tongued and grooved cases made of 6" x 1" timber. During the early stages of the

FINSCHHAFEN operations approximately 98% of small cases containing heavy items were broken before arrival at ADOS dump.

6. Maintenance.

(a) Ammunition

Maintenance was controlled by Q who ordered forward on receipt of advice of requirements from Q 9 Aust Div. This was considered more satisfactory, as the normal method of ordering forward against a set scale based on War Usage Rate was not considered advisable as the usage rate of various types of ammunition was out of all proportion to the standard War Usage Rate.

(b) Ordnance Stores

The maintenance of ordnance stores was based on -

(i) Initial signalled demands received from ADOS 9 Aust Div, and

(ii) Demands eventually received from 2/1 Aust Ord Beach Det.

This method was found to be much more satisfactory than sending forward automatic shipments to maintain the usage of initial reserve, as once again, standard War Usage Rates were no guide to the actual usage of various items of stores. Owing to the limitation of the craft available for maintenance it was necessary for 2 Aust Corps to detail priority of movement for various items of stores and accordingly, it became necessary to maintain detailed records of all items demanded by ADOS 9 Aust Div. In conjunction with ADOS BUNA Base Sub Area, a plan was evolved whereby details, including weights and measurements of stores awaiting call forward were advised to this Headquarters. This method has worked very satisfactorily and stores required by troops have with a few exceptions, always been available to meet demands.

7. Marking and Documents.

It is necessary that all stores be clearly marked with group number and each case given a serial number. This information should be marked up in details on the consignment notes etc and copy of consignment note should accompany each vessel.

8. Conductors.

In the case of ordnance stores going forward by ship it is essential that an ordnance conductor accompany each shipment and carry details (as in paragraph 7 above) of all stores in the shipment. It was not found sufficient that a conductor should accompany stores, but it is essential that he hand consignment notes to an ordnance representative at the landing beach. It was found that papers handed to any other person were rarely passed to ADOS or his representative, and instances occurred where stores urgently required were not readily available and a large number of cases had to be opened before the particular item required could be located. Personnel of 9 Aust Div Ord Fd Pks staging in the BUNA area were, wherever possible, employed in the conducting of these stores. Tarpaulins were in short supply during the initial stages of the campaign, but after stocks were

received and ample stocks had been sent to 9 Aust Div conductors were instructed that tarpaulins used to cover stores in transit would be collected and delivered back to BUNA for further use.

9. Forwarding of Urgent Items by Air.

Frequent requests were made for air movement of urgent stores to FINSCHHAFEN, but prior to December 1943, stores could only be sent forward by air as far as LAE from whence movement was by ship. Australian Water Transport were operating a small vessel on a daily run LAE-FINSCHHAFEN and the plan at that time was to forward urgent stores by air from either PORT MORESBY or BUNA and Australian Movement Control were on forwarding from LAE to FINSCHHAFEN. This method did not prove successful as stores were frequently lost or delayed in transit and arrangements were made with ADOS 9 Aust Div for a Serjeant to be attached to LAE area as Ordnance Liaison Officer. After this NCO took up duties many hundreds of packages of ordnance stores were forwarded and only two instances occurred of stores being lost or seriously delayed in transit. Details, including package numbers, of stores being forwarded were signalled through service channels to 9 Aust Div repeated 2 Aust Corps. It is therefore considered that where operational requirements demand it and supplies are of operational importance, that a Serjeant storeman should be at each emplaning and deplaning point where no complete Air Maintenance Company is in operation. (It is understood that there was a representative of an Air Maintenance Company at LAE, but he apparently could not cope with the volume of traffic.)

10. Staff.

ADOS 9 Aust Div has submitted to his Staff details of a suggested change in ADOS staff on a Divisional Headquarters.

11. Ordnance Field Parks

Present equipment is too heavy for use in initial landings. Recommendations for changes in types and number of vehicles were submitted in Adv 2 Aust Corps G/426/SD of 17 Feb 44.

12. General.

(a) Salvage

During the initial stages of the campaign it was not possible to provide ordnance facilities for the handling and packing of returned ordnance stores and ammunition, but considerable quantities were salvaged by 9 Aust Div Salvage Unit. Due to close liaison between ADOS 9 Aust Div and OC Salvage it was possible to re-issue serviceable equipment etc direct to units and thereby save space on maintenance craft. It is suggested that in future campaigns of this type two salvage units would enable earlier recovery of salvage and consequently less deterioration from weather.

(b) Dumping of Ordnance Stores and Ammunition.

Due to the rapidity of the advance in the latter stages of the campaign, large dumps of ordnance stores and ammunition had to be left in unit areas and in the majority of instances no map reference was available and recovery could only be effected by a search of the whole battle area. Units should keep records of their dumps and advise Salvage as soon as possible,

as stores and ammunition when eventually recovered had suffered so much from the weather that repairs were frequently impossible.

D - AEME

1. Workshop Equipment.

(a) Considerable trouble has been experienced in getting major machine tools forward. These were not included in the early movement for the operation and AEME personnel were equipped with hand tools. This would be satisfactory if 2nd Echelon repair facilities were brought in at approximately D + 20 day.

(b) The Jungle type Light Aid Detachments attached to Infantry Brigades are entitled to a scale of Jeeps and are therefore as mobile as Brigade Headquarters. Unfortunately, these Light Aid Detachments were not so equipped and the greater portion of the operations were carried out with only Hand Tools.

(c) Due to these factors, the "stitch-in-time" policy could not befully carried out with the resultant accumulation of 3rd and 4th Echelon repairs.

(d) The lack of Machine Tools at one stage was the cause of six (6) guns being out of action and made it necessary to send complete Sight Brackets from BUNA which placed a corresponding number of guns temporarily out of action.

The recommended solution is ensuring that Jungle type Light Aid Detachments are equipped with their technical Jeeps and amending the existing Brigade Workshop to have a Light Section of eight (8) Jeeps and four (4) Trailers so that they may be included in early part of operations equipped with badly needed light Machine Tools. Even in later stages, road conditions preclude the movement forward of the necessary equipment to maintain guns, telecommunication equipment, Motor Transport, and earth-moving equipment.

2. The arrival of maintenance supplies of Wireless and RADAR equipment which was not tropic-proofed was an added commitment to Signals and Australian Electrical Mechanical Engineers repair organisations which had a large commitment in maintaining sets which were tropic-proofed in the field and which system is only an expedient.

3. In several instances, Light Aid Detachments have not moved with Headquarters of units to which they are attached. This has had the usual effect of neglecting 1st Echelon repairs.

4. In coastal operations it is considered necessary that AEME formation representative be allotted an ALCM for moving Workshop sections and evacuating repairs from forward coastal areas.

5. It is considered essential that, as soon as development of base area commences, service representatives should be posted to relieve such representatives on field formations as the increasing L of C causes neglect of that service in either the field formations or the base area.

6. It is suggested that, in any division of the Corps Headquarters the Deputy Director Mechanical Engineers should be on Advance Headquarters. All Australian Electrical Mechanical Engineer units under command are forward and co-ordination of units behind the Divisional Headquarters is necessary, as well as being on the position for technical advice to Deputy Adjutant & Quartermaster-General and Arm and Service representatives.

SECTION II SUGGESTIONS FOR TRAINING

General.

1. The following suggestions are based on observations made by this Headquarters both during the training period on the Tablelands and during the recent operations. The suggestions made are not intended as a comprehensive list, but as a basis on which to commence training.

Preliminary Training and Preparations - (Applies to all units)

2. To obtain the best methods to be employed and to ensure a uniform method of training, it is recommended that, as soon as the training policy is decided a conference be held of all unit commanders within the formations.

By the mutual exchange of ideas, valuable information would be obtained on:-

(a) points which should be concentrated on in training

(b) methods to be adopted for each type of training

It is considered that individual units have developed new and successful methods for teaching certain subjects, and that other units would benefit by this knowledge.

3. For preliminary training, technical and specialist units should be released from all duties and concentrated under their respective commanders. This applies in particular to engineer units which are frequently required to spend too much time on camp duties. All the divisional engineer units should be concentrated under the Commander Royal Engineers for the preliminary training together with a mechanical equipment company (or detachment thereof) the Pioneer Battalion and a section of Provost (the latter two for part time training.)

4. As soon as the preliminary training and planning are complete and the order of battle for the operation is decided, the units should, if possible, be concentrated in country resembling the operational zone. Too much stress cannot be placed on the necessity for early association and co-operation between the units that are to make up the force. The units should be issued with full WET as early as possible, especially as regards weapons, vehicles, mechanical and signal equipment, also any new or specialised equipment such as the Air Observation Post.

First Reinforcements (Applies to all units)

5. When 7 Aust Div concentrated for training early in 1943, the strength was well below WE due largely to battle casualties and malaria. This deficiency was not made good until towards the end of training, and then by troops

who had received little or no jungle training. To prevent a recurrence of this the following recommendations are made:-

(a) The formations be built up to WE plus First Reinforcements at an early date.

(b) That deficiencies caused by sickness during training be made good at regular and frequent intervals. It is considered most desirable to enable units to train at full strength.

Increase in Allotment of Training Ammunition - (applies to all units)

6. It is considered that for the period of intensive training which formations are required to undergo, the allotment of training ammunition vide GRO G504/43 is inadequate.

7. The importance of having a very high standard of musketry cannot be over emphasised. To obtain this high standard training, and above all, practice, must be had in the following types of shooting.

(a) Deliberate shooting - lying
from weapon pits
kneeling
standing
from trees

(b) Snap shooting - as for (a) above

(c) Shooting from the hip both in an assault and stationary with rifle and bayonet, Bren and SMG

8. Much of the shooting is done either kneeling or standing due to tall Kunai grass or undergrowth. Shooting from these positions is difficult to master and requires constant practice. The range practises as laid down do not include firing from these positions. GRO G504/43 does not allot ammunition to allow for the type of training undertaken by the School of Jungle Warfare and for similar jungle assault courses already built in the divisional training areas.

9. Good shooting means a high expenditure of ammunition in a training area where the supply is assured, but also means a lowering of expenditure in operations where the supply is sometimes very difficult.

10. It is therefore recommended that as far as stocks permit, the allotment of training ammunition including artillery ammunition and pyrotechnics be at the discretion of the Divisional Commanders.

Training of the Tactical Group - (Applies to all arms)

11. By the tactical group is meant a composite force of infantry, tanks, engineers with artillery support.

The following training is recommended:-

(a) For ground attack. This is covered in part II, section 7, of this report.

(b) For an opposed landing. It is considered that, in an operation involving a coastal advance, a small composite force supported by land based artillery may be used to effect a surprise landing in the enemy's rear. It is considered that experiment and training in operations of this nature would prove valuable.

Artillery

12 Prior to the departure of 7 and 9 Aust Divs from the mainland to commence operations in HUON PENINSULA, training for artillery units in matters particularly related to jungle warfare was instituted. This training has proved sound and should be continued.

13 The matters referred to are as follows:-

(a) Deployment and movement with a severely restricted transport scale - example, A Field Regiment was permitted to use only one third the number of prime movers and some Jeeps in support of a Brigade in jungle exercises over a period of four days.

(b) Passage of obstacles - example moving guns over ravines using blocks, tackle and timber felled on the spot.

(c) Protection of gun sites by artillery personnel against raiding "PAI" including the use of booby traps, and warning devices.

(d) An increase in the amount of weapon training, and of training in unarmed combat, and over assault courses.

(e) Increased emphasis on field craft for all ranks, training in the construction of shelters from bushwood and other natural materials, and the training of the individual to carry his own essential gear and rations and to fend for himself.

(f) Training all detached personnel in movement through jungle on foot with all necessary equipment and with the responsibility for their own protection on the move and at rest - in effect, training in the tactics of jungle patrolling. This applied particularly to all Reconnaissance Parties, and to the O and G parties of Field Regiments.

(g) Training of all signallers as in (f) above and in the laying of line by hand in co-ordination with the moves of infantry.

(h) Planning and executing movement by landing craft and by air transport.

(i) For Field Regiments:

(i) Engagement of targets close to the Observation Post by using guns sited to a flank so that full advantage of the breadth zone factor could be obtained.

(ii) Artillery Reconnaissance - especially with the use of photomaps.

14. It is considered that additional training is required as follows:-

(a) Training of specialists of all types but particularly signallers with a view to having available within each Regiment 100% replacements. This is necessary because in jungle operations the additional strain on specialist personnel results in their casualty rate becoming considerably greater than normal.

(b) Training in beach defence. This is particularly necessary for Tank Attack Regiments if the expedient of using 6 pr guns as beach defence guns is to continue, but it is also pertinent with Light Anti Aircraft and Field Regiments.

(c) For Field Regiments:-

Training in the use of the Air Observation Post. It is considered desirable that all Field Artillery Officers carry out shoots from the Air Observation Post at regular intervals. This is a new equipment and practice in its use is essential.

(d) For Light Anti Aircraft Regiments:-

The allotment of a towing plane and drogue for constant predictor and shooting practice. No such plane and drogue were available in the pre-operational period of training in the mainland. 2/4 Lt AA Regt therefore had had no real shooting practice from the time it left the Middle East until it engaged planes in these operations.

(e) For Divisional Artillery Staff:-

(i) Training in air photograph interpretation, gridding, use of gridded obliques etc.

(ii) Practice in the staff work involved in movement by air or sea and in all types of craft.

(iii) Training in consideration of priorities in the calling forward of maintenance supplies when sea or air transport is used and the amount of such transport is limited.

Engineer Training

15. It is recommended that in general engineer training, emphasis be placed on following subjects. In NO case training to be restricted to lectures, but to include observation of tasks being undertaken by those already expert, and finally actual performance of the tasks.

(a) Roads including Beach Roads

(b) Bridging, both equipment and improvised

(c) Wharves and Piling

(d) Anti-Personnel and Anti-Tank Mines

(e) Watermanship

(f) Loading and Off-loading of Landing craft

(g) Engineer functions in support of Tanks

(h) Unit Hygiene

(i) TEWTs by sand model

16. Every endeavour must be made to conduct the training in country and under conditions similar to that which it is anticipated will be encountered in operations.

Malaria

17. The operations revealed that signal units were poorly trained in malarial discipline and domestic duties.

During the training period these units were working continuously on line construction and normal duties with little or no time to be concentrated and trained as units. The result was that Junior Officers and Senior NCOs were not imbued with their responsibilities towards the men under their command. More training should be done on:-

(a) first aid

(b) protection against malaria

(c) hygiene

(d) personal hygiene

This especially applies to personnel of line sections who have to move independently on long tasks.

18. To assist signals in future planning it is suggested that a signal officers' reference book should be drawn up to include such details as:-

(a) staff tables and statistical data

(b) details of technical equipment

(c) suggestions for layout and netting of communications within brigade and tactical groups.

19. For notes on the training of tradesmen, refer to Senior Signal Officers' conference Report of 2 Jan part ix.

Co-operation between infantry, tanks and tactical reconnaissance aircraft

20. Successful experiments were carried out by 1 Aust Armd Tank Bn and BOOMERANGS from 4 Tactical Reconnaissance Squadron RAAF in the GUSIKA area on 5 Feb to test communications between aircraft, stationary and mobile tanks. (See recce report attached).

The test proved satisfactory, Radio Telephonic communications can be maintained between tanks and aircraft under jungle conditions.

This could be developed for beach landings where tanks and infantry are co-operating and in advancing through jungle country where Tactical Reconnaissance aircraft are employed to lead the tanks on to targets.

21. It is recommended that further experiments and training be undertaken on this subject.

Minor Tactics (Applies to Infantry).

22. It was found in these operations that the training of some of the junior leaders was not all that could be desired. Particular mention is made of fire control, especially for fire and movement or when providing covering fire in opposed river crossings.

23. Good fire control by section and platoon commanders is essential and frequently it is not until the enemy is actually engaged that section and platoon commanders experience the difficulties of fire control when live ammunition is being used.

24. If future operations are to be fought in country comparable to the East Coast of the HUON PENINSULA, it will be found that opposed river crossings in jungle are numerous. To cover such a crossing with small arms fire from a flank requires a very high standard of musketry and fire control. It is recommended that particular attention be paid to the training and practice of these and similar types of assault.

The assaulting troops in an attack of this nature would benefit also by becoming accustomed to the sound of friendly fire from a flank.

Medical (Applies to all units).

25. Inadequate training in hygiene including malarial precautions among all ranks has been again demonstrated. The cost of this lapse is at present incalculable.

26. It is recommended that:-

(a) Adequate hygiene and anti-malarial training be incorporated in the instruction of all ranks

(b) Promotion - profiency pay or trade grouping should require evidence of efficient hygiene and malarial discipline.

(c) All training be carried out as far as practicable on the assumption that the area is highly malarious.

(d) Adequate hygiene and anti-malarial instruction be an integral subject in the syllabus of all Army Schools.

27. While sound general principles must always be the basis of all Australian Army Medical Corps training the conditions of their application may vary. It is recommended that the instructors in all AAMC Schools be replaced after each campaign by participants in recent operations.

Corps Headquarters.

28. It was found during the last training period that the Staff Duties Section on HQ 2 Aust Corps was unable to pay sufficient attention to training. An unusual amount of work was required to re-organise, re-equip, and move the formations under command. It is anticipated that the position will be similar during the forthcoming period.

29. It is recommended that for the Training Period a special staff known as G Training be formed and that this consist of:-

(a) One Lt-Col

(b) One Maj

(c) One Capt

30. Since the attachment of a GSO I (Ops) has been found a necessary addition to the Corps Headquarters during operations, it is recommended that this appointment be filled for the training period also. This would release the GSO I (Liaison) to concentrate on training. It is suggested that the G Training Section could then be formed by:-

(a) GSO I (Liaison)

(b) GSO II (Liaison)

(c) GSO III (Chemical Warfare)

Driving and Maintenance Small Craft (Applies to Engineers and Australian Army Service Corps)

31. Divisional personnel were required to drive and maintain

(a) DUKWs

(b) Diesel powered small craft

32. Specialists from Engineers and Australian Army Service Corps were called upon to do this. It is recommended that a small number of drivers Motor Transport be trained in the driving and maintenance of the above craft.

Section Cooking - Tinned and Dehydrated Rations (Applies to all units)

33. Units have short drawn tinned and dehydrated rations partly owing to insufficient training in section cooking. The opportunity should be taken during unit and sub unit exercises to train personnel in the proper handling of the above rations as distinct from the field operational ration.

Care of Ammunition (Applies all units)

34. A considerable quantity of ammunition was rendered unserviceable. Due to damp charges many 'misfires' and 'shorts' were caused. Units must realise that these defects are caused as much by negligent storage as by the weather. All ranks should be given sufficient instruction in the proper methods of storage of ammunition and pyrotechnics, to enable them to preserve these stores in the field during operations.

Disposal of Vehicles (Applies to all units equipped with MT)

35. Great difficulty was experienced by higher formations in tracing the disposal and transfer of vehicles. This resulted in a lack of precise knowledge of the numbers and locations of vehicles adding to the difficulty of replacement and replenishment. Particular difficulty was experienced when one formation took over vehicles from another formation on relief. The necessity for maintaining and submitting accurate records of all transfers, casualties and vehicle states must be impressed on all units. This must become a matter of drill so ingrained during training that it is automatic during operations.

Stripping of Vehicles (Applies to all units equipped with MT)

36. The widespread habit of removing and jettisoning fittings from vehicles eg, hoods, windscreen and seats from Jeeps, and tailboards from other vehicles resulted in an unnecessary deterioration and reduced serviceability of many vehicles. If these fittings are considered unnecessary on some vehicles they should be removed under unit direction and the parts carefully stored or returned to RSD. This must be impressed on all units and their dirvers during the training period. Carelessness during training results in carelessness in operations.

B. Schools.

1. To enable certain schools and courses to be formed early, the following suggestions are submitted with the recommendation that they be ready to function as soon as the Divisions are concentrated. Where possible these should be sited in or near the training area to reduce travelling time.

2. Air Photo Interpretation School (Applies to Staff Officers, Tank, Artillery, Engineer, Infantry, Boat and Shore Unit, Medical and Provost personnel)

To meet the heavy demand for instruction in air photo interpretation it is recommended that a school be set up near the training area. It is suggested that the school be organised into two wings:-

(a) Specialist Wing - To train one officer and one NCO per battalion as specialists

(b) Unit Officers Wing - To meet the more easily satisfied needs of battalion and company etc commanders.

3. School for MT Drivers - (Applies to all units equipped with MT)

The standard of driving in the early stages of the campaign was not good, resulting in damage to roads and vehicles as well as blocking narrow and important tracks. It is recommended that a special school be formed, and that as many drivers as possible be put through. The course suggested is:-

(a) Elementary training. Thorough training in driving maintenance and road discipline.

(b) Advanced training. Situated in wet boggy area where jungle tracks are available. By using old vehicles good training could be obtained at little expense. Instruction should concentrate on timing, speed, quick gear changing, driving without brakes, and insistence on regular and careful maintenance.

4. Training Native Control (Applies to all units).

Due to the shortage of ANGAU personnel, infantry battalions are required frequently to provide personnel to assist in controlling carrier lines. It is recommended that a reserve of personnel be trained:-

(a) To speak pidgin and Malay,

(b) To manage native labour,

(c) In details necessary for loading, packing and carrying over long distances,

(d) Barter,

(e) First Aid.

5. Engineers Schools.

The following courses are recommended:-

Subject.	For.	Run By.
(a) Advanced engineer planning for combined operations.	CsRE and Coy Commanders.	SME (already organised)
(b) Operations and Maintenance of Mech Plant	Operators from Fd Coys and Fd Pk Coys	Mechanical Equipment Company
(c) Engineer recce and report writing	Engr Offrs NCOs and prospective NCOs	Under arrangements CRE
(d) Estimation of plant, stores, labour and time for engineer works.	Engr Offrs and NCOs	Under arrangements CRE.

6. Unit Signalmen's Course. (Applies to Artillery, Engineers and Infantry)

It is recommended that a central school be set up to assist in training unit and regimental signalmen within the training area. On previous occasions brigades have normally run their own courses. If a central school were instituted, run by Aust Corps of Signals, it is considered that more extensive training could be undertaken and a uniform method of operating ensured.

SECTION 12. ORGANISATION OF JUNGLE DIVISION.

In the light of recent experience a review of the composition and organisation of jungle formations has already been submitted to NG FORCE. The reference to this review is Adv HQ 2 Aust Corps G/456/SD of 1 Mar 44, G/504/SD of 18 Mar and G/456A/SD of 27 Mar.

Reference Section 11A paragraph 14.

RAAF.

RECONNAISSANCE REPORT ARMY CO-OP.

LOCATION: APPARATION UNIT: 4 TAC/R SQN SORTIE: No 2 (1 Tk Bn) A/C No-Type A46-121 Date: 5 Feb 44.

ORDERS AND NATURE OF SORTIE. COMMUNICATION TESTS WITH TANKS.

REF MAPS: FORTIFICATION POINT 1/25000 PILOT: F/L WATCHORN

TIME UP	1600	VISIBILITY	WEATHER
TIME DOWN	1815		
TOTAL	2 hrs 15 mins	Fair	Hazy.

Place of Ref	Report - Interrogation.
LOLU 630729	Location was at edge of jungle-using Wyndham aerial. Air to ground very satisfactory up to 10 miles-except when a/c was blanketed by a hill when communication ceased completely. eg. when a/c was in area ref 623713 a/c was then only approx 1 mile from tank. Requested a report on KALUENG R as a test for future working in operations. This afforded pilot practice in tank requirements.
ABLE 621724	Located in clear kunai country-using tank 50 fc aerial. Comms quite as satisfactory as with LOLU-strength 2 at 10 mls but quite readable - a/c came in at 4s at 10 mls. Requested check on ford in area.
BAKER 606714	Using 4 section aerial-mobile-original location on open track on rid e. During movement passed between jungle. Close in reception 5s-at eight miles reception faded to about 1s. 6 mls considered a workable distance. Speed of tank made no perceptible difference to reception. When a/c was in valley just SOUTH of SONG reception faded to 2s-but still workable. On gaining 15008 a/c then received at 4s. Requested check on troop movement in area-pilot gave report of numbers and location.
CHARLIE 633719	Located on track in thick j[illegible]e-stationary-using tank 4 section aerial. Comms not good best reception was 2s unreadable. 2 netting calls given.
DOG TRACK BONGA-KATIKA	Route along track from SOUTH to NORTH-using four section aerial. A/c unable to locate for some time-not observed until tank passed along track running on edge of gardens. Track was through dense jungle. First location given by tank as at 633715. Reception 5s overhead. 1 mile away and a/c low reception 4s. Not effected by altitude of a/c up to 2000' (Effective radius 3-4 miles at which distance reception was readable at 2s.
GENERAL	Test considered thoroughly satisfactory. It was observed that when a/c was heading to or away from ground station that reception faded. When a/c turned in either direction the aerial became directional and reception improved-most noticable at five miles and over. This reception was inclined to fade a little towards 1800 hrs. Test was started at 1400 as arranged but a fault developed in a/c wireless- A/c changed and tests continued.

(Sgd) R J O'LOAN Maj,
45 Aust L Sec (AC)

PART III.

REVIEW OF WEAPONS AND EQUIPMENT

SECTION 1. ARTILLERY

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1. QF 25 pr Mk II

This campaign has clearly demonstrated that this equipment is well capable of being used in jungle warfare where the support it has afforded has given great assistance and satisfaction to the infantry. Subject only to the limitation on movement imposed by lack of easy means of access - a limitation which becomes less as Field Gunners obtain more experience in jungle warfare - this weapon has maintained its reputation as a Field Piece.

2. 75mm Pack How

While the two guns concerned had relatively little action it can be stated that the guns performed satisfactorily. A minor weakness in the securing arrangements on the collar stop of the recuperator cylinder was found, but rectified by AEME personnel.

3. 40mm Bofors

(a) Platforms for jungle conditions.

The Mk I platform is considered more suitable than the Mk II because:-

(i) It is shorter and lighter and therefore takes up less space and is easier to handle when loading into planes and barges; and

(ii) It has greater clearance and uniform track which is a big advantage in moving over the rough tracks encountered.

The relative measurements are:-

	Mk I	Mk II.
Length over all (travelling posn)	20' 6"	21' 4"
Weight	5124 lbs	5432 lbs
Clearance	1' 5½"	8.1/8"
Track	4' 11"	Front 3' 4" Rear 4' 10½"

(b) Spare Parts.

It is considered that the holdings of spare parts for 40mm Bofors need revision. Delay occurred in the fulfilment of indents for spare parts because they were not held sufficiently far forward. It is recommended that a stock of spare parts of a type likely to be urgently required be carried by Ordnance Field Parks.

(c) Amn - 40 mm.

In view of the amount of manhandling found to be necessary to get amn to forward gun sites it is suggested that consideration be given to the practicability of having this amn made up in boxes of 12 rounds instead of 24 rounds. 24 rounds boxed weighs 165 lbs.

4. Sig Eqpt.

This subject is dealt with in more detail in the section devoted to signals but it is considered desirable to mention the following references to arty signal equipment in particular.

(a) No 11 Set.

(i) Generally is unsuitable for use by OPO because of its low degree of portability. It is a six man load with four additional men required to carry spare batteries.

(ii) A much lighter set which can be carried by one man is urgently required.

(b) Apparatus CL No 3.

(i) This type is not suitable for use in the present theatre of operations.

(ii) One method of laying cable frequently used by one Regt was to pivot a mile drum on a spike which hung vertically down from a long pole. The pole was carried by two men on their shoulders.

(iii) A reel, carried on a sapling stretcher or frame with the ends of the frame harnessed to the man, was another method sometimes used.

(iv) It is believed that the proposed apparatus CL No 6 for jungle conditions, with reel and wire weighs 33 lbs or more. This is carried on the man and constitutes a heavy load. If assault wire and not D 3 cable were used the weight would be much less. It might then be suitable for OP sigs to use.

(c) Assault Cable.

American or Australian - provision of this type of cable, for use by FOOs going with the forward Infantry during the early stages when the laying of the heavier and more durable D3 is impracticable, is recommended. It is stressed that the assault cable should be replaced as soon as the tactical situation permits.

SECTION 2. ENGINEERS.

1. Bridge Equipment.

(a) Except on minor gaps, equipment bridging is incomparably faster than improvised. With adequate provision of mechanical equipment it can be got forward to otherwise inaccessible places.

(b) Pontoon Long Landing Bays are useful for spanning the ship-to-shore gap when landing craft beach beyond fordable depths. The same equipment is subsequently valuable for bridging gaps up to 42 feet.

(c) To provide against losses, liberal spares of SBG and LLB dogs, rollers and cradle pins are required.

(d) A demand was felt in one operation for an infantry assault bridge, of 100 ft span, to be launched from the near bank without personnel or equipment on the far bank. (In the particular case, the river was in high flood, and could not be crossed until bridged; in addition the enemy held the far bank.) The best solution is probably a light single girder, on the general principles of the SBG, stiffened by SWR bracing in both the vertical and the horizontal plane, and designed for cantilever launching.

2. Mechanical Equipment.

(a) Mechanical equipment immensely facilitates and expedites operations. Div ME thereof is only a nucleus. Additional allotment should be based on careful appreciation of requirements of the operation. Mechanical equipment should be taken into the operation as early as possible. If the available shipping is insufficient to take in all immediately, the balance must be given a high priority in maintenance shipping.

(b) Small tractors (D2) are required in Fd and Fd Pk Coys. The balance, if considerable, should be provided by an ME Coy or det under command, rather than by issue of items ex a pool. For Divisional work, the most useful size of dozer is D6. It can be taken most places a D4 can (incl over bridges) and it turns out much more work. A proportion of D4s is required; however- actual numbers based on the appreciation of the operation. In some cases, there is scope for D7s and D8s but normally these are a Corps, rather than a Divisional requirement. Airborne operations require an adequate scale of mechanical equipment designed for air transport whole, to enable airfield construction etc to be begun immediately on landing. The type of plant carried by US Engr Avn Bn is recommended.

(c) The provision of a small Mech Eqpt Coy permanently on the OOB of Div RAE, or the addition of a Mech Eqpt Pl to the Div Fd Pk Coy has been suggested. The latter has been recommended in our G/456/3D of 1 Mar 44.

(d) Mech eqpt is subjected to extremely heavy duty- especially in active operations. Regular servicing and maintenance must not be neglected. Adequate heavy workshop facilities are essential within reach of the equipment if it is to continue to work even - let alone work efficiently.

3. Vehicles.

(a) Winches are desirable on all MT.

(b) The 4 x 4 3 ton truck is not equal to the demands on it in heavy going. Transmission failures (broken axles) are too common, and four driving wheels are insufficient. American 2½ ton 6 x 6 GMCs performed admirably. It is recommended that they be substituted for Aust 4 x 4 trucks.

(c) In an operation supplied by coastal and sea-borne transport, RAE require an allotment of craft for movement of engineer stores and equipment quickly from div maintenance areas to forward beaches as the advance progresses, in the same way as MT serves on inland operations.

4. Signals.

(a) Wireless sets No 11 are required at HQ RAE and Hq of Fd and Fd Pk Coys.

(b) By reason of its weight and bulk the No 11 is scarcely suitable in Pls. The No 108 Mark III seems the best answer there; it has given very good service.

(c) The No 208 is NOT recommended for engr use. Its range is too limited for normal Fd Coy dispersion, it cannot be used R/T, and it is prone to wander off frequency.

SECTION 3. SIGNALS.

1. Line.

(a) All units favour the American assault cable but consider single cable of the equivalent resistance would be better.

(b) Australian assault cable (enamel) was found useful with deep patrols but it is NOT quite robust enough.

(c) Cable, Electric, D3, was found to be most suitable between Bde and Bns and within Fd Regts. It is suggested that cable be coloured green.

(d) Cable, Electric, D8, twisted, used bunched was found suitable for long runs to Bdes and rearwards of Division.

2. Pullerphones.

These proved entirely reliable and gave satisfactory service.

3. Telephones.

Telephone "D" Mk V was not suitable due to internal breakages in hand set lead, wiring and dampness causing great falling away in strength of speech due to leakage. Telephones Infantry No 1 were found useful. It is thought that a sound powered phone would be more suitable It is considered that one type of phone be standard throughout the AMF, namely the British "L" type which

(a) is waterproof

(b) Weighs only 8 lbs,

(c) Possesses magneto calling device and bell.

4. Teletype.

Teletype is desirable between Corps and Army, and, in some cases, to Division.

5. Wireless Equipment.

(a) SCR 536 and SCR 511 gave good service and were invaluable for intercommunication between tanks and infantry. However, SCR 536 sets developed faults due to breakages of microphones, ear pieces and switches. SCR 511 sets were too roughly handled due to the temptation to stab the spear rod into the ground. The present WET provision for SCR 536 sets should be ample.

(b) Wireless sets No 108 Mk III have given excellent results although they have been in use only a short time. Engineer and Infantry units both report very favourably, and preliminary reports from artillery indicate that these sets will meet the requirement of this arm for a man pack equipment.

(c) Wireless Sets No 46 - Inf Bns consider these as the ideal set within Bns.

(d) Wireless Sets Nos 11 and 109 proved very reliable, but frequency band of each unsuitable for 24 hour operation. The transport of these sets is a major problem when manhandling is necessary. Separation of transmitting and receiving units would increase portability. Arty require a much lighter set for use by OPOs which can be carried by one man.

(e) Wireless set No 22 have only been tested for a short while, but first results are more than satisfactory.

(f) Wireless sets No AT5/AR8 gave good results, but some form of PEO is desirable.

(g) Wireless set No 133 are entirely unsuitable for jungle operations.

6. Pigeons.

These were found to be of great value with long range patrols.

7. Switchboard - 10 Line UC.

Proved entirely unsuitable because of weight and consequent difficulty of manhandling. It is thought that two 6 line switchboards lightly constructed and waterproofed would be more suitable for Infantry Brigades.

8. Bars, Carrying, No 1.

It is considered that these should be lighter and that they also require a spindle at right-angles to the bar so that cable can be laid along a narrow track

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SECTION 4. INFANTRY.

1. Small Arms.

(a) Pistols .38" S & W.

The only defect found was breakages of main springs and trigger springs.

(b) Rifles.

Defects experienced were:-

(i) Coppering of bores (due to copper sheathed ammunition)

(ii) Splitting of woodwork due to moisture. (This also applied to MGs, Brens, and Vickers)

(c) Rifle Boys Tk A.

The rubber shoulder pads were found to split.

2. Owen Guns.

This weapon performed well with the exception of:-

(a) A few instances of bulged barrels,

(b) Tendency to rust quickly,

(c) Butt catches not always secure.

3. MMGs.

These were of excellent value and no alterations to the weapons or their projectiles are suggested.

4. 3" Mortar.

(a) This proved a most effective close support weapon. Against targets in close cover, the bombs bursting at either tree-top level or on the ground, successfully drove the enemy out of his positions.

Against positions dug in or near open clearings, and on coral sholves and outcrops, the 3" mortar proved most effective.

(b) Experience indicates the necessity for a delayed action fuze for the 3" mortar and also a lighter bomb with greater range.

(c) The container bomb 3" mortar is not waterproof, easily damages and the lids are insecure.

(d) The 7½ lb bomb is recommended as a requirement in jungle operations, the proportion of 7½ to 10 lb bombs being governed by the nature of the country. This recommendation, together with a report on tests carried out by 20 Aust Inf Bde, was forwarded under cover of our G/434/SD of 19 Feb 44.

5. Grenades.

(a) Smoke.

Use of 63 grenades from EY rifles is still considered a most valuable adjunct in close support fire. The enemy showed extreme dislike of our use of smoke and on many occasions use of 63 grenades enables us to attack with the bayonet.

(b) 36M Rifle.

4 sec grenade used as a rifle grenade was found to be particularly useful except when enemy's overhead cover is exceptionally dense. As a basis for provision action the recommended proportion of 4 second and 7 second grenades is one box of 4 second grenades with gas checks and cartridges to every three boxes of 7 second grenades. (Our signal SD319 of 1 Nov 43 refers)

6. Web Equipment.

The pack provides better balance than the haversack; but it is difficult to administer in that it has to be discarded together with many necessary articles that are carried in it, when troops go into action. One Bde sewed pouches basic on the sides of haversacks to give the latter more capacity; however some form of pack which may be divided or connected as one member could be designed so that, when action was imminent, one half could be dumped and the other half carried with such articles as waterproof sheet, mending gear etc.

It was also considered that:-

(a) Material should be lighter and if possible waterproof,

(b) Fatenors are difficult to manipulate when covered with mud.

7. Ground Sheet.

(a) It is considered ground sheets should be larger - suggested one foot wider and 18" longer.

(b) The cape pattern is not satisfactory owing to unsuitability for use as rainproof shelters.

One Bde suggests that weight could be reduced with a new ground sheet made of similar or little heavier material to the gas cape about 8' square to enable the man to sleep on one half and form a shelter with the remainder.

8. Defects and suggestions for improvement of miscellaneous equipment:-

(a) Watches GS - breakages in main springs and balance wheel staffs.

(b) Lamps, Electric No 1 - switches almost invariably faulty.

(c) Compasses - breaking down and flaking of luminous marks.

(d) Two man tents - require to be waterproof.

(e) Mess Tins - should be larger for cooking purposes, and of lighter construction.

(f) Pencils - ordinary type of pencil unsuitable for very wet conditions, owing to readiness with which it splits.

(g) Tape - should be lighter and narrower.

(h) Intelligence equipment - all equipment, particularly box, should be lighter.

(i) Shovels GS - too heavy for infantry - suggest JAP type.

9. Clothing.

(a) Boots should have big sprigs in soles and instops, and heels should be more firmly attached.

(b) Socks require pre-shrinking.

(c) Mosquito Net - the issue type is unsatisfactory as it is too heavy, especially when wet.

10. Projector Infantry Tank Attack. (Our G/296/SD of 4 Jan 44 refers)

The PITA has been tested by all Bdes of 9 Aust Div under conditions likely to be encountered in NEW GUINEA but not in actual operations.

(a) The weapon is not recommended as an issue to units engaged in jungle warfare against an enemy not equipped with AFVs for the following reasons:-

(i) Very few targets are hard enough to explode the bomb,

(ii) It is a two-man load except for very short distances,

(iii) Concealment would not be easy, as the noise of discharge is considerable, and much movement by the firer is necessary to recock the projector.

(b) It is recommended:-

(i) That the projector be issued to units only when the enemy is about to use, or is using, tanks.

(ii) That the scale of issue be one per company.

(iii) That training in the projector be given at weapon training schools, so that a cadre of instructors can be developed in each unit. In this way, men could be quickly trained in the use of the projector should it become necessary to issue it.

(c) The following suggestions are also made as a result of trials:-

(i) A longer and larger striker pin might result in less unexploded bombs,

(ii) The projector is likely to be put out of action by wet and dirt,

(iii) The muzzle is made of light metal and could be easily damaged,

(iv) The mounting would be more stable if it were a Bren Type biped with shoes on the legs.

11. Double Oven SMG Magazines.

Experimental samples were tested but it is not recommended that they be adopted as it is considered that the weight of the loaded magazine arranged as in the samples, destroys the balance of the gun, dragging barrel down and to the left.

12. Bayonet Frog 37 Pattern Filled with Hook Brass 2½" (Our G/247/SD of 14 Dec 43 refers)

User trials were carried out and it is recommended that it replace the present issue as it was found that:-

(a) The bayonet frog can be easily detached from the equipment,

(b) The hook prevents the bayonet frog from sliding around the belt.

13. Covers, Magazine, SMG Cellophane. (Our G/325/SD of 10 Jan refers.)

As a result of user trials it has been found that:-

(a) The covers would be useful for the protection of magazines against salt spray during a sea move in landing craft.

(b) They afford some protection against rain, damp and dust in jungle conditions, but, due to the flimsy nature of the materials, their effective life is considered to be very short.

For the above reasons, it is not recommended that they be an issue except to troops during sea voyage in open craft.

14. Hammocks (US Type)

For use by troops sufficiently far from FDLs to permit safe use would be a factor in lessening sickness. In our signal SD1029 of 17 Dec we recommended a scale of issue of 1 per man throughout the Division, or, if not practicable, 1 per man less those in rear areas, or a total of 10,000 per Division.

15. US Rocket Projector. (Our G/268/SD of 24 Dec 43 refers)

This equipment was developed by ESB and converted for land use. In general, it is not considered suitable in its present form as a close support weapon in the jungle due to:-

(a) Weight and difficulties of manhandling,

(b) Short range, difficulty of concealing position,

(c) Problem of transporting the heavy ammunition right forward,

(d) Large beaten zone.

Nevertheless the projector can be used to good effect under favourable conditions once its capabilities and limitations are recognised. Better sighting instruments, greater range and accuracy would permit of its wider use.

16. Mess Tins (Our G/410/SD of 8 Feb 44 refers)

As a result of User Trials carried out with quart-pot type and lightweight rectangular type mess tins, it was found that the light-weight rectangular type was preferable for general service conditions because:-

(a) It is more convenient in pack where inner space can be used to pack small articles,

(b) It will boil water more quickly and is more suitable for cooking food,

(c) It is more hygienic than quart-pot type, which, because of its depth, is difficult to keep clean.

17. Yukon Packs and Inflatable Lifebelts.

It was felt by formations that these were an operational requirement and in our signal SD286 we recommended the following general reserve:-

Yukon Packs - 1000 per Division
Inflatable Lifebelts - 2500 per Division.

18. Amonol Blast Bomb Mk II (Our G/400/SD of 6 Feb refers)

The bomb is felt to be a requirement but the degree of urgency of production not immediate. It is recommended that the scale of issue be as follows:-

Divisional Dumps 2500 Corps Dumps 5000

SECTION 5. TANKS.

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1. Weapons - Matilda Tanks Mk IV (Our G/413/SD of 9 Feb refers)

(a) Armour.

(i) The armour has proved capable of withstanding 37 mm AP and 75 mm HE at close range. Whether this armour is capable of stopping shells from the 75 mm dual purpose type 88 gun, is not known; nor is it known whether there is an AP shot or AP HE shell fired by this weapon which was used in a Tk A role at BUNA.

(ii) Normally in the jungle, the forward part of the tank only is exposed to enemy fire and any contemplated increase in armour should be made in front.

(iii) The front idler, the track adjusting mechanism, and the track itself, have proved the most vulnerable parts of the MATILDA and tanks have been immobilised by hits from 37 mm AP on these parts. A modification for the protection of these points with armour plate is recommended, but it should be removable, since fixed armour plate in this position would decrease the vertical step crossing ability of the tank.

(b) Armament.

(i) Low Velocity Ammunition.

It is considered that in the jungle there is a danger of overgunning the infantry tank. There is a considerable blowback from the burst of 3" Howitzer shells fired at short range. Close co-operation between infantry and tanks and the need of infantry protection for the tanks requires that infantry move close to the tanks.

(i) Contd For this reason the size of the weapon that can be employed is limited and, to avoid casualties to our troops from blowback, care and sound training both of infantry and tank crews are necessary. Experience tends to show that the calibre of the 3" howitzer is the maximum for tank weapons in jungle warfare. The 3" howitzer has proved fully effective against all types of Japanese bunker and its performance would be further improved by the provision of ammunition with delay fuse. Further, a weapon of moderate calibre enables a greater number of rounds to be carried in the tank and this is a distinct advantage in jungle warfare.

(ii) <u>High Velocity Ammunition</u>.

This has shown no tendency to "blow back" 2 pr HE has proved effective against enemy defences, but 6 pr firing HE HV ammunition is thought to be most suitable. Army tanks in the jungle should therefore be armed either with 6 pr or 3 inch howitzer. For a troop of tanks moving with the leading infantry company along a jungle trail, two 6 pr tanks and one 3" howitzer are recommended.

(iii) 7.92 Besa has performed excellently. Two such MGs per tank are desirable, one mounted in the turret, and one operated by the driver for the engagement of close opportunity targets.

(iv) AA weapons should not be permanently mounted on the turret. They are seldom required, and are liable to be damaged by overhanging trees and enemy fire. One Bren carried inside the tank is sufficient, and it is also useful for inclusion in infantry perimeters at night.

(v) Two OSMGs, one smoke 2" Bomb Thrower, and six grenades should be carried.

(vi) In addition, a Very pistol is essential for intercommunication purposes.

(c) <u>Vision</u>.

All round vision is an indispensable requirement. A periscope with 360 degrees field vision could be installed in all tanks. The periscope should be kept as close to the crew commander's cupola as possible.

(d) <u>Design in General</u>.

Optimum requirements in design, apart from those already mentioned are:-

(i) <u>Tracks</u> - should be designed to reduce side-slip, which has been one of the chief difficulties in moving tanks during this campaign.

(ii) Track Adjuster should be fitted with hydraulic shock absorber, for ease of adjustment.

(iii) Winch - at least one tank per sqn fitted with heavy power winch on the rear to assist in unditching other tanks.

(iv) Diesel Engine is much preferred to petrol engine. The ignition system of the latter is affected by humid conditions, and the danger of fire is less with a diesel engine.

(v) Transmission - six forward gears, one reverse, is desirable. Reverse and emergency low should be of same ratio.

(vi) Steering -system which allows a minimum turning circle is required for negotiation of jungle pads and sharp bends on mountain tracks, and for moving among the large trees of a tropical rain forest. A combination of the controlled differential system and brake-and-clutch system is suggested.

2. Speed of Operation.

Because of the necessity for forward ground recce and for infantry protection of the tanks, it is considered that tanks will rarely precede the infantry in jungle operations, and that the rate of infantry advance will determine the progress of the tanks. On the other hand, the tanks require a reserve of speed over the infantry, to enable them to catch up when delayed by obstacles, and to move as required to support infantry attacks. A speed of 12-15 mph is considered sufficient.

3. Ventilation and Crew Comfort generally

(a) In recent operations tank crews have fought with tanks closed down for as long as 7 hours and it was not considered that their efficiency was greatly decreased. It is considered that fatigue is not due merely to insufficient ventilation but largely results from cramped space and the mental and physical effort required to fight the vehicle. Normally, tanks have been left open all night to allow the cool air to circulate and closed down all day under shade as far as possible, and this has helped to keep the interior cool.

(b) The provision of two fans inside the tank - one to circulate, the other to draw out warm air and fumes - has been most successful.

(c) Humidity is the salient fact in NEW GUINEA climate. Because of the high moisture content in the atmosphere, the heat of the sun's rays are often less intense than in areas further south, and it is believed that the temperature inside a tank is normally lower in the tropics than in many more temperate climates.

(d) Air-conditioning plant with crew's harness tested by 1 Aust Tk Bn at MOROBE was effective in keeping the men cool, but having to mount the refrigerator outside the tank was a serious disadvantage.

(e) It is considered that every effort and experiment to increase the comfort of the crew is worth while. Air-conditioning is not indispensable, but it is desirable, provided the device is mounted inside the tank and does not hamper the crew's movements.

4. Weight limitations in respect to ground surface.

(a) Ground Pressure.

(i) The ground pressure of the MATILDA tank (18-20 lbs per sq inch) has proved a limiting factor in the number of tanks which can be passed over a stretch of track; and as the going in NEW GUINEA is normally heavy, it has also resulted at times in the tanks becoming unexpectedly bogged.

(ii) Owing to the prevalence of soft tracks and marshy ground in NEW GUINEA, an ideal ground pressure would be about the same as a D6 bull-dozer (6 lbs per sq inch)

(b) Overall Weight.

The question of the maximum desirable weight of a tank for use in jungle operations is probably the most difficult of all, and has several aspects:-

(i) Bridging - the present standard bridging (Class 24) can take the MATILDA.

(ii) Recovery - MATILDA tanks have sometimes become immobilised on steep slippery slopes, or bogged in heavy going; and in such cases D6 bulldozers proved invaluable in towing them through the obstacle. A damaged tank can frequently be towed back by another tank, but again the D6 is far more capable of the task.

(iii) Sea Transport in Small Craft - LCMs are capable of carrying a MATILDA, though it overloads the craft and may be dangerous in rough weather.

5. Suggested Modifications to Matilda Tanks Mk IV and V

(a) Compass fittings be altered to be similar to those in CHURCHILL tanks so that room can be made for additional ammunition racks.

(b) Water-tin brackets should be used, some for water and some for spare oil, and be covered with 36 mm armour; and, so that all other containers on the tanks exterior can be removed before battle, they should be made readily removable.

(c) Wireless aerials be of "Cat Whisker" type to reduce liklihood of damage by enemy fire. Such damage has been suffered many times.

(d) A removable bracket be fitted on top of the rear louvres to carry crews gear, extra tarpaulins and kit when on the move, not in battle.

SECTION 6. TRANSPORT.

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1. Performance of Each Type of Vehicle in Jungle Operations. (Our G/426/SD of 17 Feb refers)

(a) Motor Cycles, Cars DS and Cars Recce were not employed in the theatre of operations.

(b) All vehicle types mounted on trucks 15 cwt 4 x 4 and trucks 3 ton 4 x 4 WD ol .asis, were found unsuitable for jungle operations, prior to development of tracks of standard width.

(c) Jeeps have given invaluable service.

(d) Trailers 2 wheeled jeep and trailers 2 wheeled ¼ ton Willys have been in constant use. The former is preferred for ammunition, the latter for supplies of a general nature.

(e) Trailers 2 wheeled QS Aust have been successfully used as field artillery ammunition carriers when towed by tracked tractors but are unsuitable for use with jeeps due to the initial weight and large load capacity which encourages overloading - besides which they do not track with jeeps.

(f) US pattern 2½ ton 6 x 6 GMC trucks have proved the most satisfactory load carriers and have been used extensively as prime movers. Subject to track width, this vehicle can be used in any terrain passable to a jeep with trailer.

(g) When they could be used ambulances 3 ton 4 berth proved most useful; but they are subject to the limitations of the 3 ton 4 x 4 chassis. Fitted to a more efficient chassis they would be invaluable in jungle operations.

(h) Jeep ambulances have proved their exceptional worth. Shortly before commencement of operations, racks allowing four stretcher cases per jeep were fitted. They proved successful. It is recommended that these racks be fitted to all medical jeeps.

(i) Lorries 3 ton Breakdown (Aust) No 3 have been of little value and are not recommended for use in forward areas.

(j) Vehicles Breakdown Diamond T have given excellent service in all types of breakdown and recovery work

(k) During the operations, very few US pattern 15 cwt weapon carriers have been used, but those have given a performance at least equal to the jeep except in loose sand, in which they are relatively inferior owing to the poorer weight/road surface contact ratio.

(l) Tractors tracked have been successfully used as field and medium artillery tractors and for heavy haulage of a general nature over bad terrain.

(m) Trucks 3 ton water, 400 gallons, have been practically useless for the following reasons:-

(i) the limitation of the 3 ton 4 x 4 WD chassis.

(ii) the constant failure of the tank water pump.

(n) Trailers 2 wheeled water 150 gallons have given constant good use, but their weight of 1500 lbs is excessive for a jeep.

(o) Due to excessive weight involved, the jeep is not a satisfactory prime mover for the 2 pr Tk A gun

(p) DUKWs have been in constant use but NOT in heavy seas. At times they have been indispensable but constant maintenance is essential.

2. <u>Types of Vehicles and Modification Recommended for Inclusion in Jungle Division.</u>

It is recommended that:-

(a) Motor cycles, cars DS and cars recce be replaced by jeeps.

(b) Trucks 15 cwt be replaced by jeeps and trailers or by vehicles similar to the US 15 cwt weapon carrier with good road traction, high clearance, low centre of gravity good power weight ratio, special low traction gearing, and robust transmission system.

(c) Trucks 2½ ton 6 x 6 GMC be adopted in lieu of trucks 4 x 4 CS as the standard vehicle for all haulage purposes.

(d) Power winches be fitted to every vehicle larger than a jeep.

(e) All vehicles be fitted with towing hooks, front as well as rear, and be equipped with wheel chains and tow ropes.

(f) All breakdown and recovery vehicles be replaced by the breakdown, Diamond T.

(g) 50% of field artillery tractors be tracked tractors D4 or equivalent, half the number of tracked tractors to be fitted with blades for track and gun position clearance - in addition, the towing hooks be raised to allow sufficient gun-spade ground clearance.

(h) Jeeps be reinforced at the front bumper bar and the rear of the body to allow of towing strain, also to be fitted with a hand operated emergency brake of the floor lever type rather than the dashboard cable type which has proved unreliable.

3. Effect of Different Types of Vehicles on Jungle Roads.

The Jeep, 15 cwt weapon carrier, and the 2½ ton GMC do less damage to roads and tracks in wet weather, and over soft going, than any other wheeled vehicle. This matter is of great importance because during operations it is impossible to build heavy duty roads, and it necessarily follows that divisional transport must be capable of operating without them.

APPENDIX "A" TO

2 AUST CORPS REPORT ON OPERATIONS

MOST SECRET

COPY NO ___

2 AUST CORPS OPERATION ORDER NO. 2 — 29 OCT 43

INFORMATION.

1. 2 Aust Corps area will be that area to the north of all inclusive BILLSTICKING - EXCHEQUER - JARGON area.

2. 2 Aust Corps is responsible for operational control only of 5 and 11 Div. This control in respect of 11 Aust Div will pass to NGF when HQ 2 Aust Corps moves from this area.

INTENTION.

3. 2 Aust Corps will:-

(a) Clear the enemy forces from the DIMINISH area.

(b) Establish control of the East coast of BILLSTICKING.

(c) Consolidate positions now held in EXCHEQUER and LAYMAN.

METHOD.

9 Aust Div

4. Tasks:-

(a) The protection of DIMINISH including the area in which airfields are being established.

(b) Conduct offensive operations to clear the enemy forces from the DIMINISH area.

(c) Establish control of the East coast of BILLSTICKING to and incl the village 52 air miles NW of DIMINISH.

5. (a) Operations to effect 4(c) will NOT be initiated until 9 Aust Div has concentrated sufficient force for the security of DIMINISH against possible surprise attack.

(b) To assist, the following units will be moved to DIMINISH as early as possible and come under comd 9 Aust Div on arrival:-

2/6 Aust Fd Regt less one bty
11 Aust Tk A Bty
HQ 4 Aust Inf Bde Sig Sec
29/46 Aust Inf Bn
37/52 Aust Inf Bn
4 Aust Fd Amb

(c) 22 Aust Inf Bn will remain under comd 9 Aust Div.

6. Operations to effect para 4(c) will be so conducted as to avoid commitment of amphibious forces beyond those of ESB under comd.

those of ESB under comd.

7. Exploitation beyond the village 52 air miles NW of DIMINISH will NOT be undertaken without reference to HQ 2 Aust Corps.

8. 2/7 Aust Fd Coy will remain under comd 5 Aust Div until relieved, and movement can be arranged.

7 AUST DIV

9. Tasks:-

(a) To prevent enemy penetration into EXCHANGE from EQUILIBRIUM area.

(b) Protect airfields in the EXCHEQUER - LAYMAN area.

10. No units additional to those now at disposal 7 Aust Div will be moved into the present div area except:-

6 Aust MG Bn for protection GUSAP airfields.
Dets still in the PORT MORESBY area to complete forward units.

11. Unless the situation warrants otherwise, the force disposed for the immediate protection of the approaches should NOT exceed one inf bde gp. Inf Bdes should be rested and refitted in turn in the div area.

12. Operations in advance of present locations will be restricted to patrol activities except for ops which may be required to effect minor adjustments on the div front.

13. 2/7 Aust Cav (Commando) Sqn will be relieved as early as possible and withdrawn to NADZAB for movement to PORT MORESBY.

BOUNDARIES - OP & ADM.

14. (a) Between 5 Aust Div and 9 Aust Div, incl 5 Aust Div - MONGI R.

(b) Between 5 Aust Div and 7 Aust Div, incl 5 Aust Div - ERAP R.

RADAR INSTALLATIONS.

15. (a) The following RADAR installations are installed, or proposed when the dispositions of ground troops permits:-

5 Aust Div area -
NADZAB, HOPOI, SALAMAUA

7 Aust Div area -
BENA, GAROKA, DUMPU, GURUF, BUNDI

9 Aust Div area -
TAMI IS, FINSCHHAFEN.

(b) Formations in whose area these stations are will be responsible for their protection. Such protection will be afforded either by the normal dispositions of the ground forces or, where the situation is isolated, and lines of enemy approach not otherwise secured, by a detachment of a minimum strength of one pl to each station.

ACKNOWLEDGE.

(Signed) H. Wells Brig,
GS 2 Aust.Corps.

Time of Signature 1455 hrs.

APPENDIX "B" TO

2 AUST CORPS REPORT ON OPERATIONS.

MOST SECRET.

Copy No.

2 AUST CORPS OPERATION ORDER No.3 30 Dec 43.

INFORMATION.

1. ALAMO FORCE is to carry out an amphibious operation against MICHAELMAS with an initial force of one Regimental Combat Team on 2 Jan 44.

2. 7 Aust Div is to contain hostile forces in the BOGADJIM - RAMU area by vigorous action of fighting patrols against enemy posts; major forces are not being committed.

METHOD.

3. The area of responsibility of 2 Aust Corps will be HUON PENINSULA and MARKHAM RIVER valley to inclusive ERAP RIVER.

4. Interdivisional Boundary will be MONGI RIVER inclusive to 5 Aust Div.

ROLE OF 9 AUST DIV.

5. 9 Aust Div will be responsible for

(a) Active patrolling to prevent enemy infiltration into its area.
(b) Exploitation along the coast; major forces will not be committed.

6. In compliance with para 5, 9 Aust Div will not exceed the following commitments.

(a) One Bde Gp for exploitation.
(b) One Bde Gp to secure the beachhead and L of C.
(c) 4 Aust Inf Bde will not be moved from its general area .

7. Operations will be conducted so as not to require amphibious forces beyond those of 532 Boat and Shore Regiment 2 ESB already allotted to 9 Aust Div.

8. Every opportunity will be taken to locate units as far as practicable in healthy areas with a view to preserving their strength for future operations.

COMMS

9. CSO NGF is arranging a wireless group for communications 7 Aust Div - 9 Aust Div - MICHAELMAS to open on 2 Jan 44.

10. 2 Aust Corps Operation Order No.2 is cancelled.

ACKNOWLEDGE.

Signed C H FINLAY Lt-Col
for Brig,
GS.2 Aust Corps.

Signed at 2035 hours.

APPENDIX C

2 AUST CORPS REPORT ON OPERATIONS

CONGRATULATORY SIGNAL TO 9 AUST DIV

TO :: 9 AUST DIV

FROM :: 2 AUST CORPS B.105 1/12

FOR	GEN	WOOTTEN	FROM	CORPS
COMD	(.)	THE	PLAN	IS
DEVELOPING	WELL	AND	YOU	ARE
ALL	DOING	SPLENDIDLY	(.)	I
HOPE	YOU	CAN	NOW	PUSH
VIGOROUSLY	ALONG	THE	COAST	AND
KEEP	YOUR	COMMITMENTS	IN	THE
CENTRE	TO	THE	MINIMUM	YOU
CONSIDER	NECESSARY	(.)	CONGRATULATIONS	TO
9	AUST	DIV	AND	ALL
ATTACHED	UNITS	AND	BEST	WISHES
FOR	FURTHER	SUCCESSES		

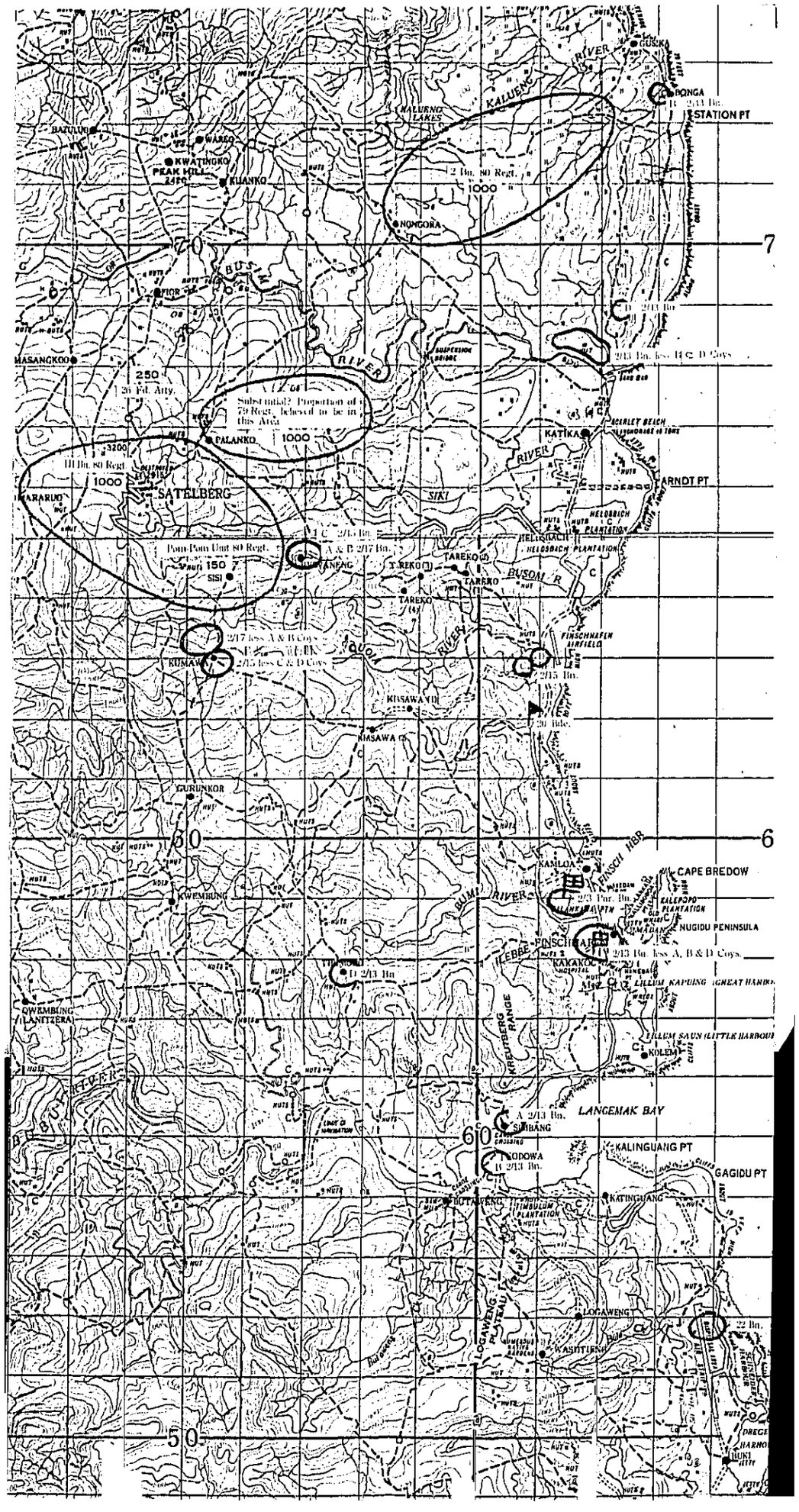
IMMEDIATE TOO :: 011030L

2 AUST CORPS REPORT ON OPERATIONS

MAP NO. 1

DISPOSITIONS
9 AUST. DIV.

FINSCHHAFEN
8 OCT 43



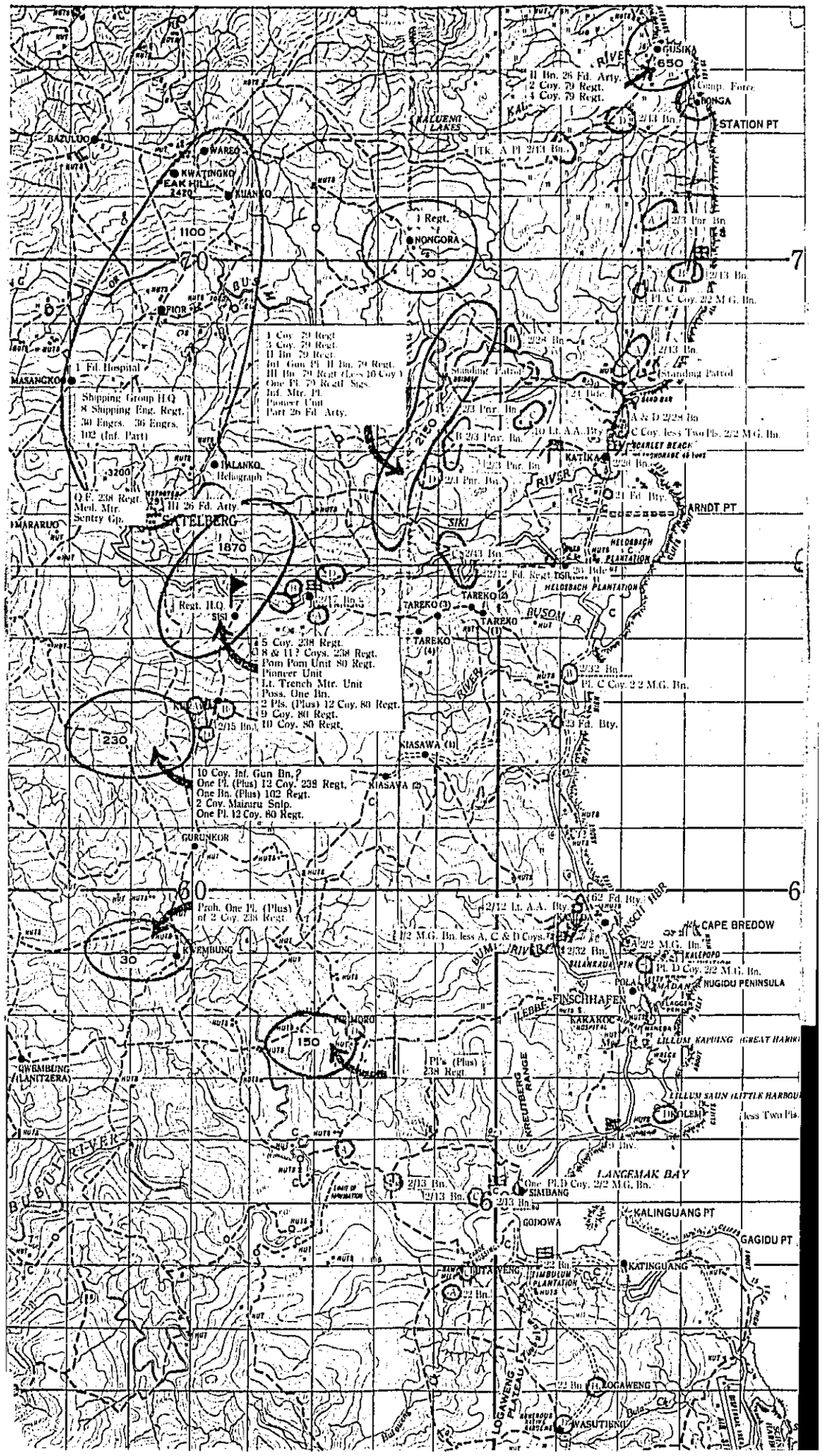
SCALE 1 INCH TO 1 MILE (1:63,360)

CONTOUR AND FORM LINE INTERVAL 50 FEET

001342A

MAP NO. 2

DISPOSITIONS FINSCHHAFEN
9 AUST. DIV. 16 OCT 43

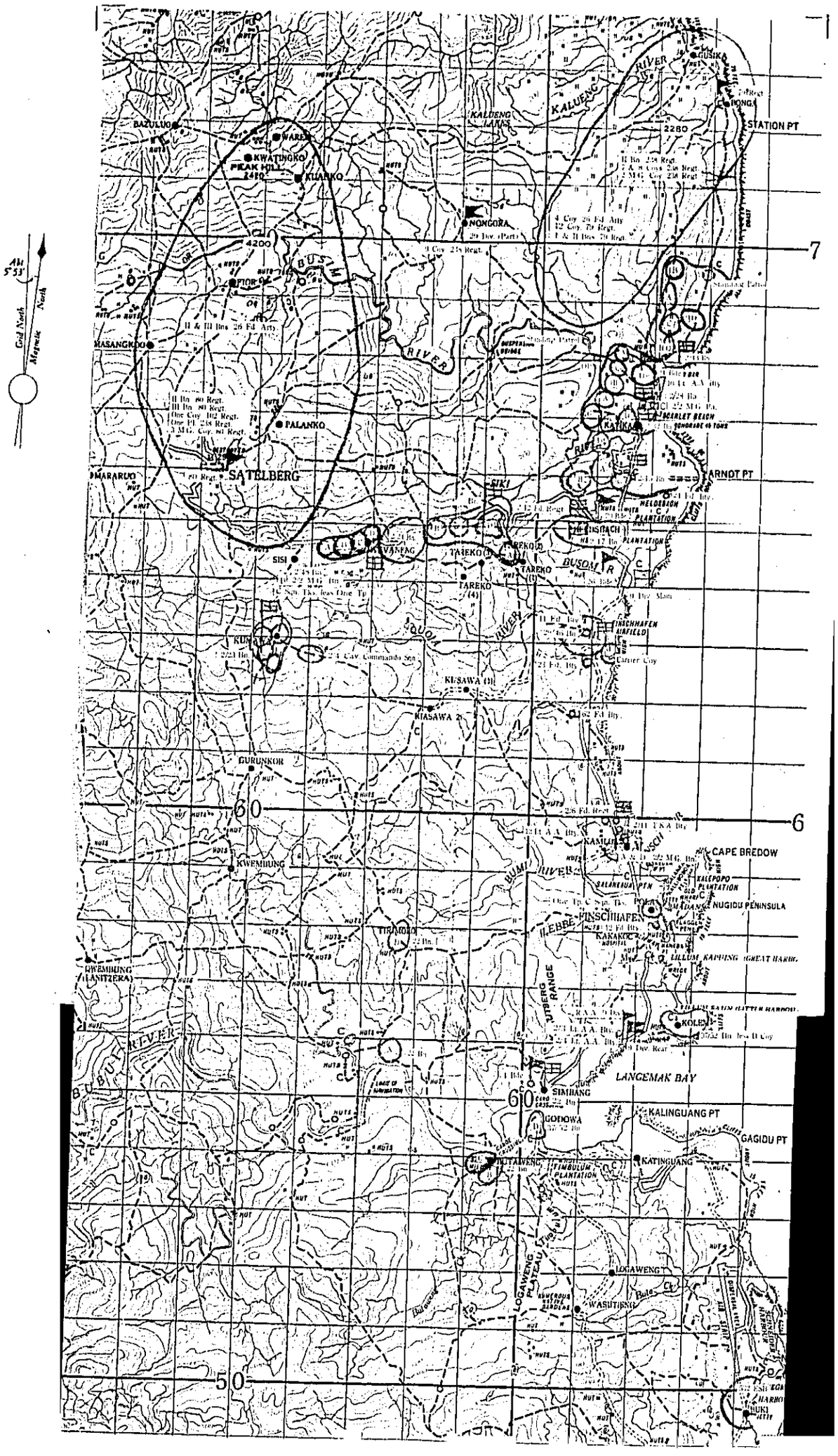


001343B

MAP NO. 3

DISPOSITIONS
9 AUST. DIV.

FINSCHHAFEN
16 NOV 43



SCALE 1 INCH TO 1 MILE (1:63,360)

MILE 1 ½ ½ ¼ 0 1 2 3 MILES 4
YARDS 1000 500 0 1 2 3 4 5 6000 YARDS

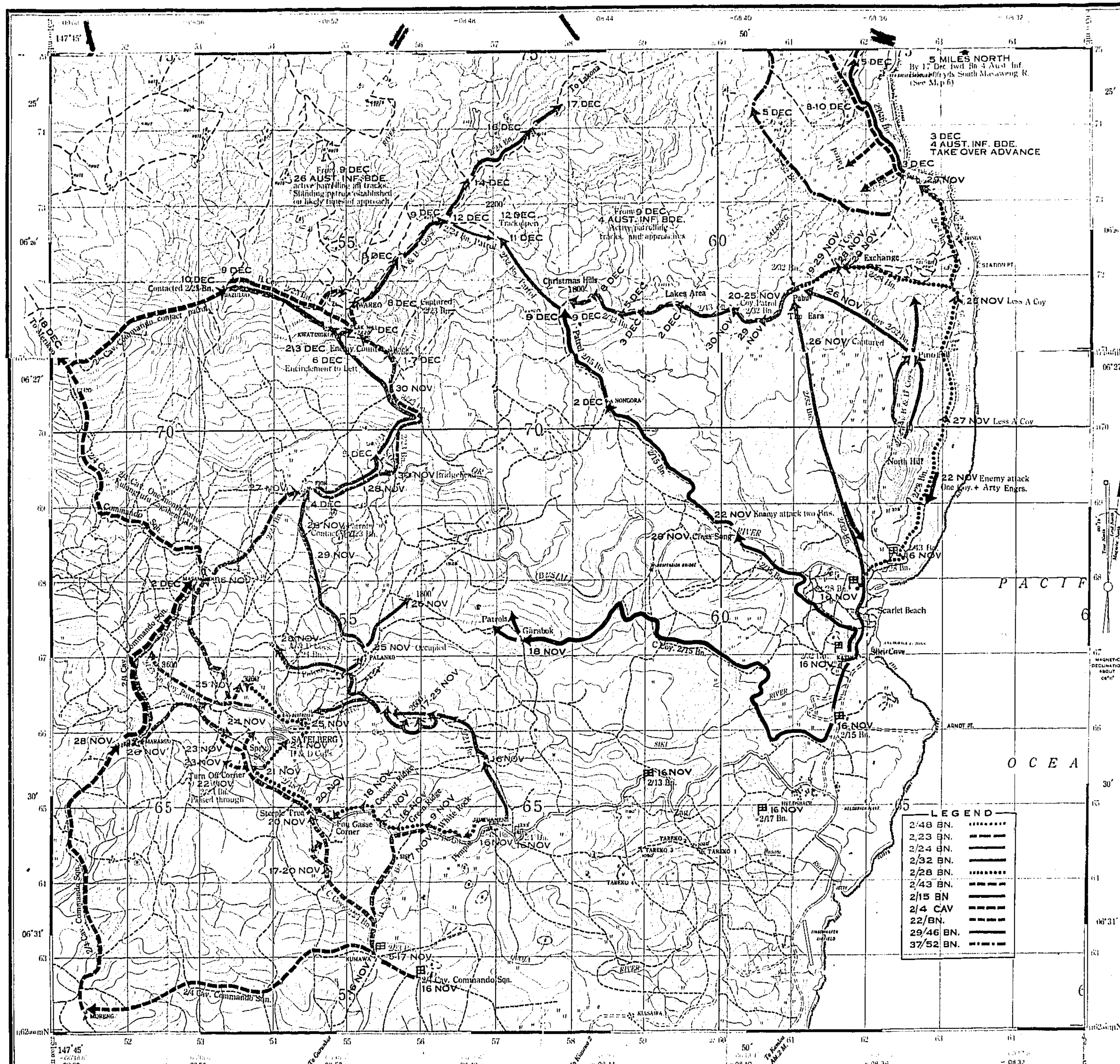
CONTOUR AND FORM LINE INTERVAL 50 FEET

KILOS 1 ½ 0 1 2 3 4 5 KILOS
METRES 1000 0 5000 METRES

001344C

MAP NO. 4

OPERATIONS SATELBERG - WAREO - BONGA 16 NOV - 17 DEC 43



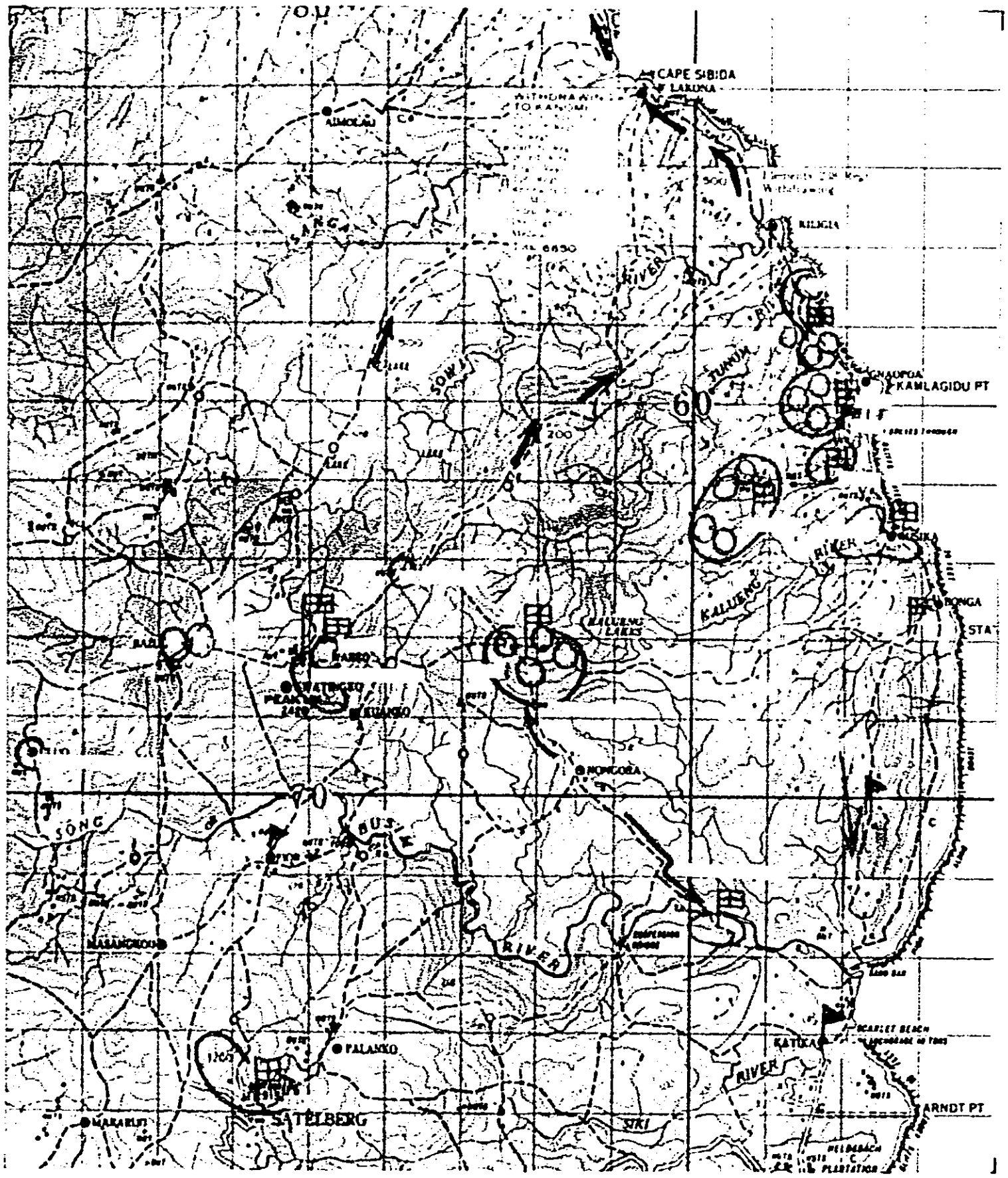
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001345D

MAP NO. 5

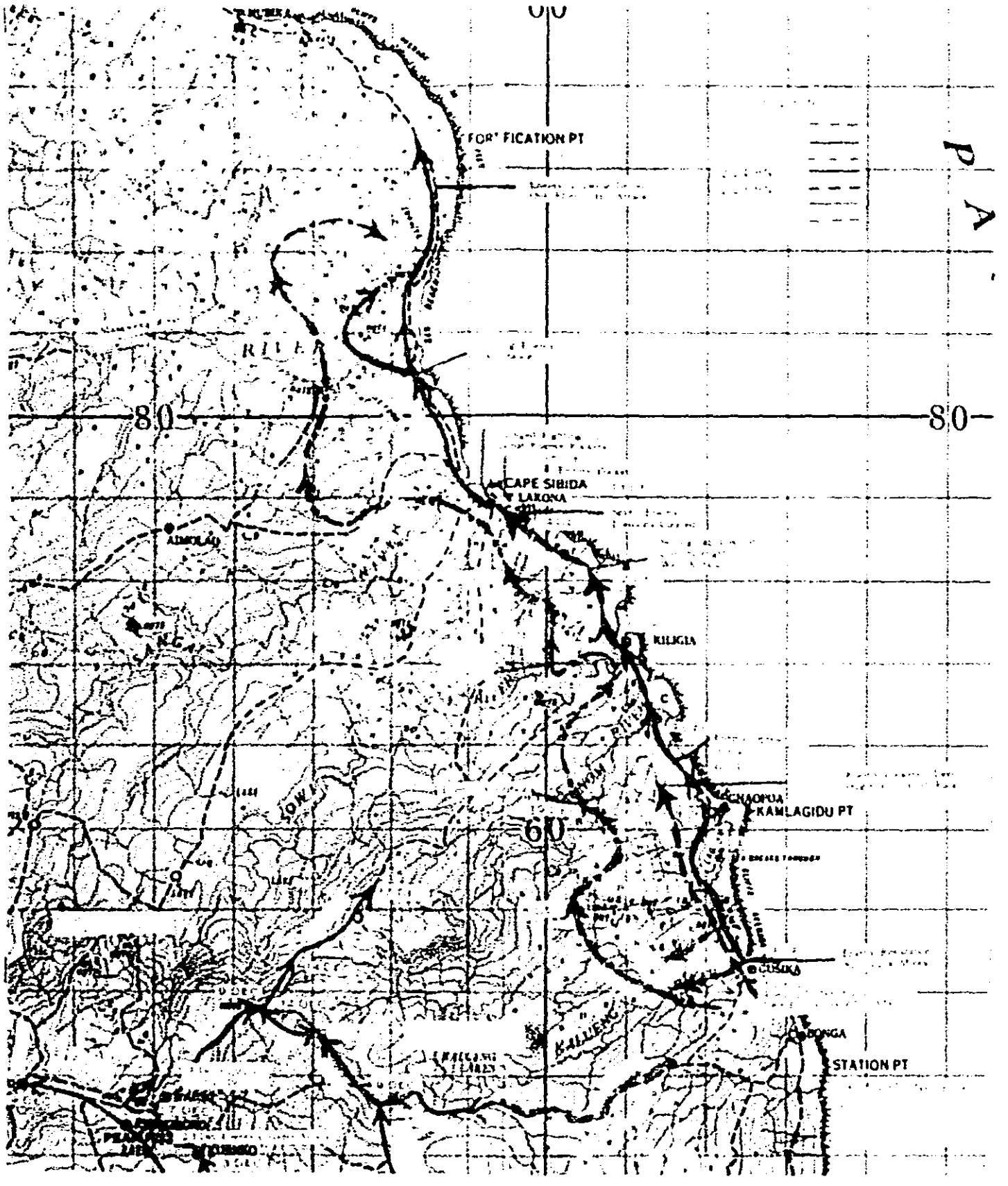
DISPOSITIONS 9 AUST DIV

1800 HRS 9 DEC 43



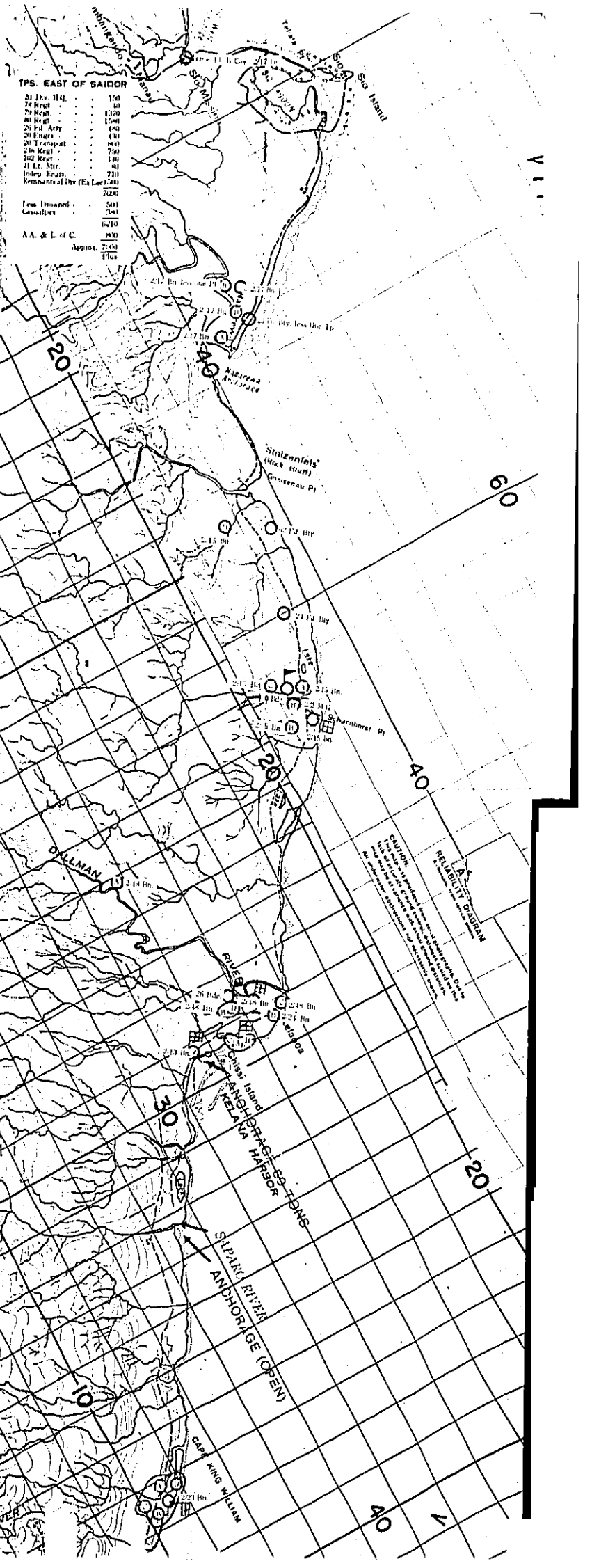
MAP NO. 6

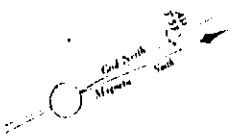
COASTAL ADVANCE
GUSIKA FORTIFICATION POINT

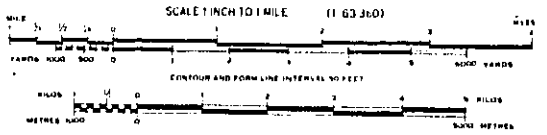


MAP NO. 7

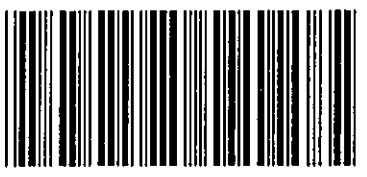
DISPOSITIONS 9 AUST DIV
SIO — KELANOA
15 JAN





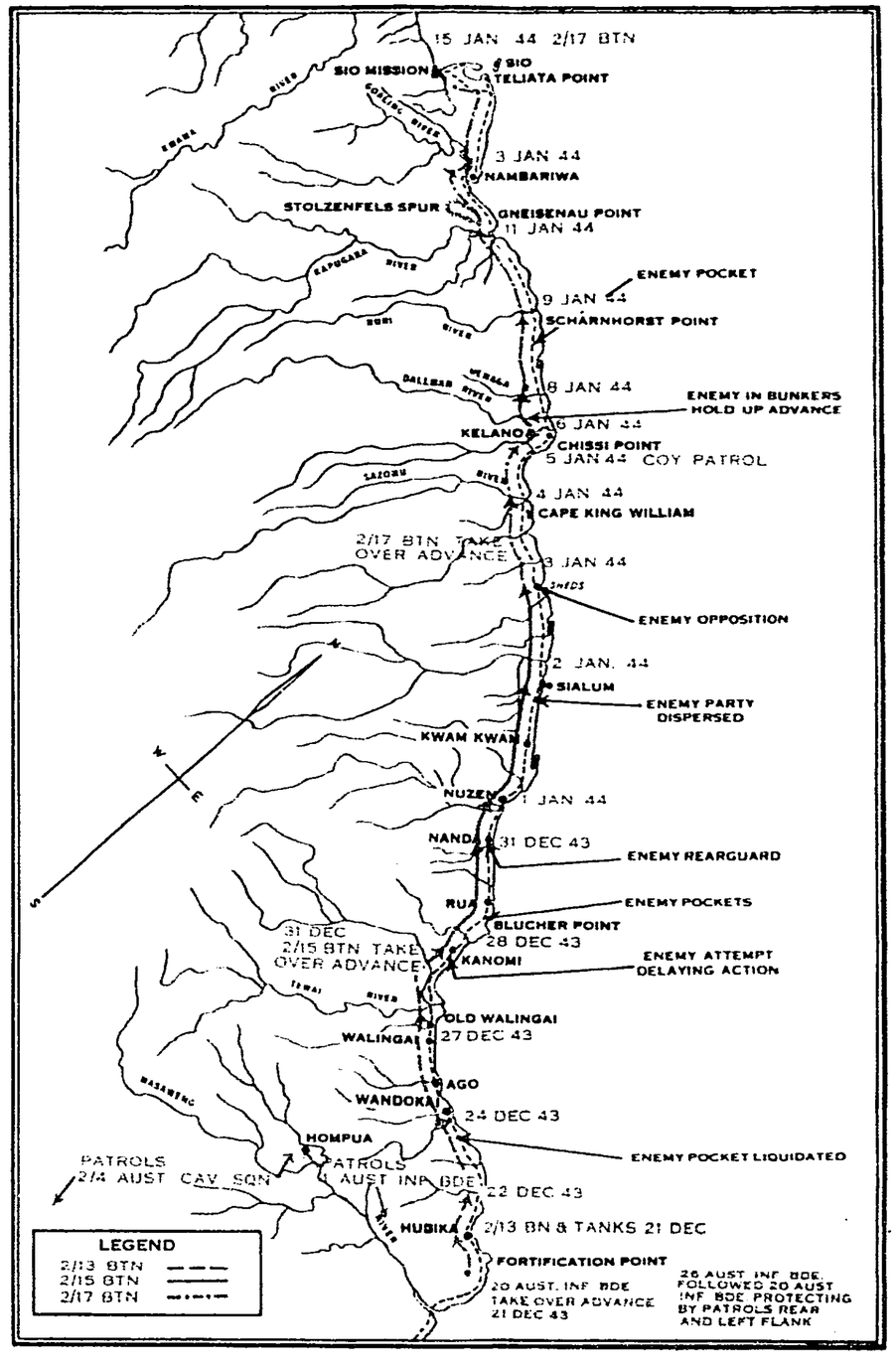


001346E



MAP NO. 8

COASTAL ADVANCE 21 DEC., 43 TO 15 JAN., 44
FORTIFICATION POINT TO SIO
20 AUST. INF. BDE.



Scale 4 Miles to 1 Inch

Miles 2 1 0 2 4 6 8 10 12 14 16 Miles

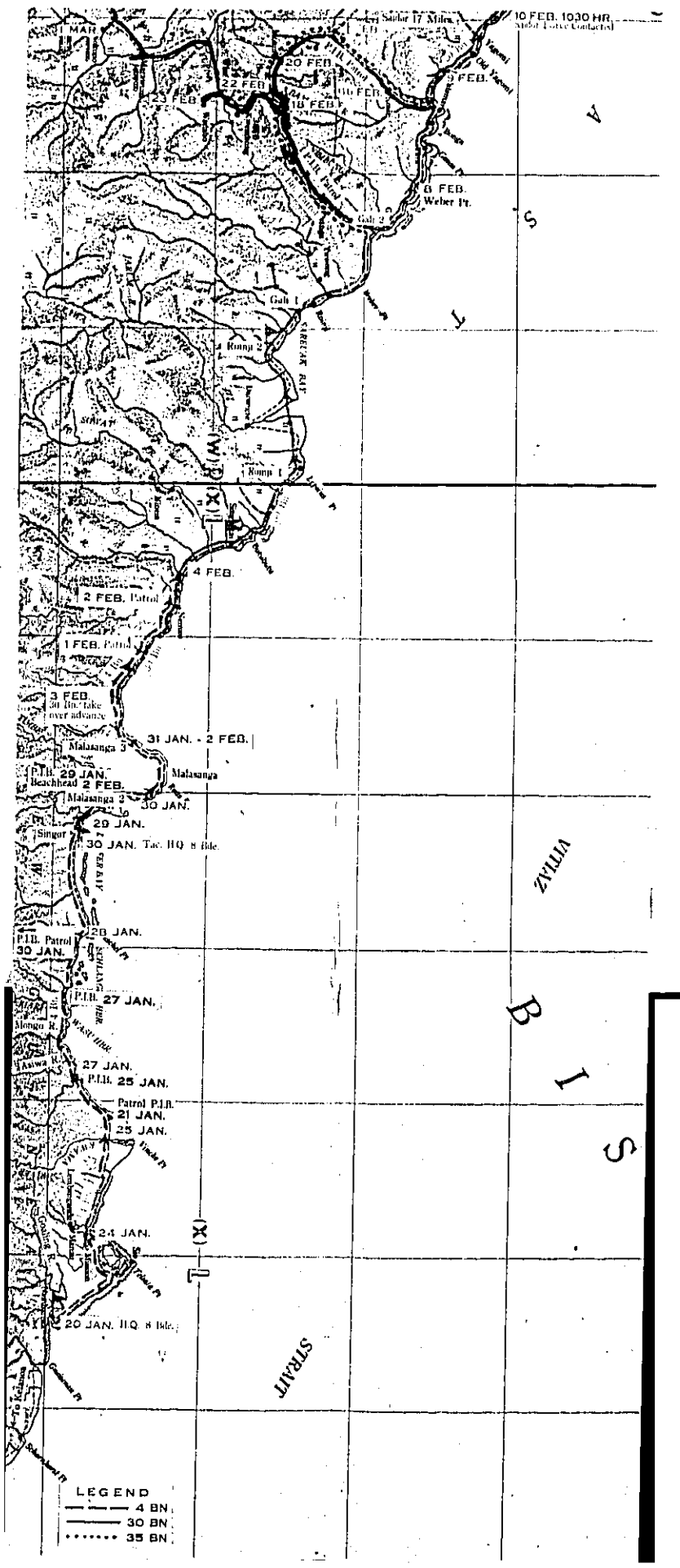
Yards 10000 0 10 20000 Yards

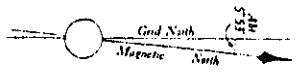
1 Centimetre to 2·5344 Kilometres

Kilometres 10 5 0 10 20 Kilometres

MAP NO. 9

COASTAL ADVANCE 20 JAN 44 10 FEB
SIO YAGOMI
PATROLS TAPEN AREA
10 FEB 1 MAR 44
8 AUST INF BDE





5 FEB

6 FEB.

7 FEB. Tac HQ 5 Bde

Scale 4 Miles to 1 Inch

Miles 3 2 1 0 2 4 6 8 10 12 14 16 Miles

Yards 10000 0 10 20000 Yards

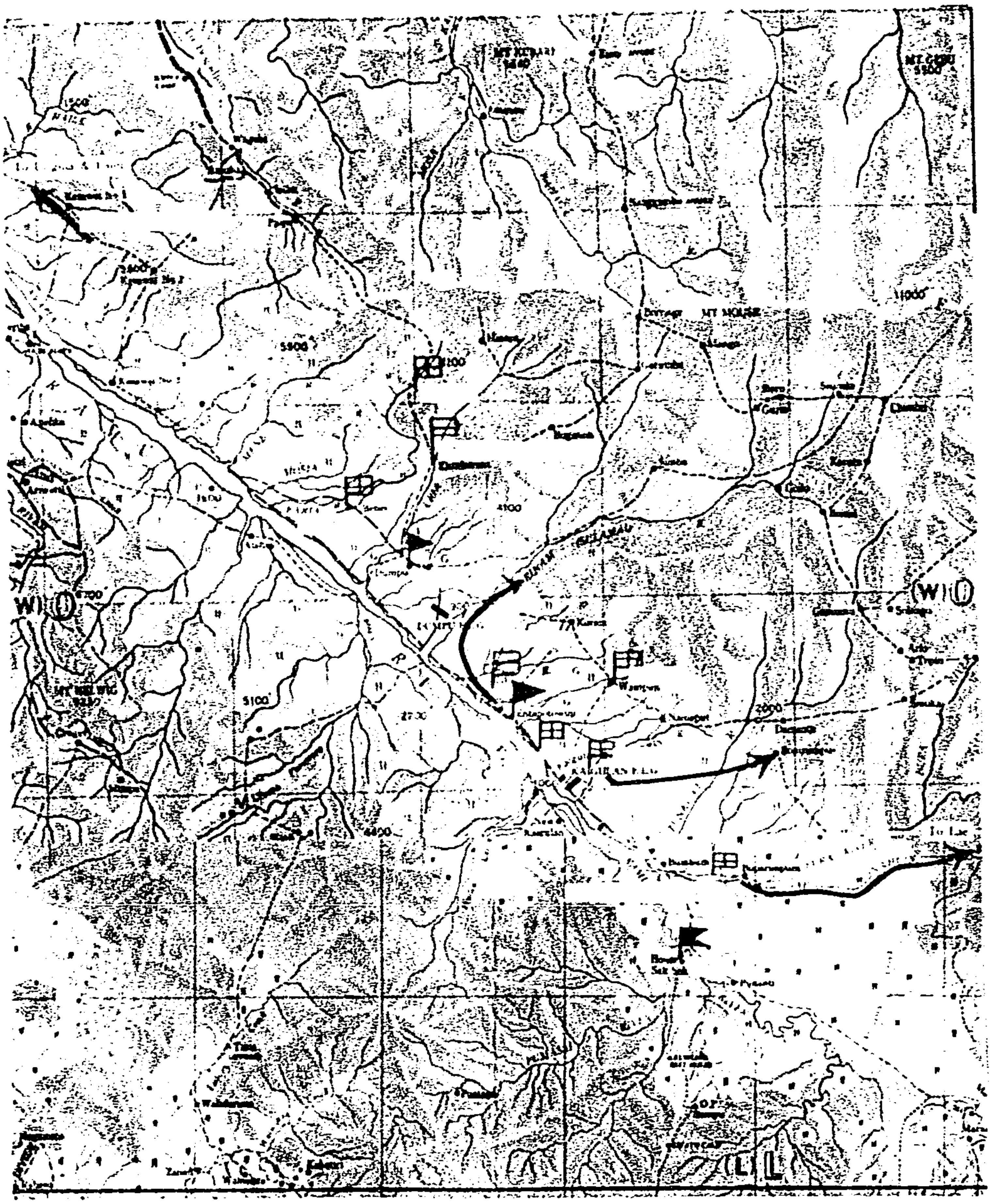
1 Centimetre to 2·5344 Kilometres

Kilometres 10 5 0 10 20 Kilometres

001347F

MAP NO. 10

DISPOSITIONS 7 AUST DIV
RAMU VALLEY 8 OCT



Scale 4 Miles to 1 Inch

Miles 2 1 0 2 4 6 8 10 12 14 16 Miles

Yards 10000 0 10 20000 Yards

1 Centimetre to 2.5344 Kilometres

Kilometres 10 5 0 10 20 Kilometres