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G/40 (52 BLU)

NOTES ON OPERATIONS

OCT. 9, 1944 - AUG. 15, 1945

ELU)

NOTES ON OPERATIONS

OCT. 9, 1944 - AUG. 15, 1945

554

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SUBJECT: Research in German methods

Hq 2 District Cdr
2000 G(3)

15 Aug 45

6 Sa. Dist Div (2)
7 JGR.
59 Area
60 Sub Area
54 BLU
52 BLU
56 BLU
2 ROTHELS
14/20 H

Herewith for info are copies of reports on research
in German methods.

669
Major General
Commanding 2 District

14/20 H

SECRET

PART I

1. SOURCES

The information contained in this report was obtained from the following six German Generals captured in ITALY: -

Generaloberst von VIETTINGHOFF
General LIMLUSEN
Generalleutnant PRETTER-PICO
Generalmajor SCHRIKE
Generalmajor SCHULZ
Generalmajor SCHULZ

GCSW
GOC 14 Army
GOC 146 Inf Div
GOC 334 Inf Div
GOC 505 Inf Div
GOC 94 Inf Div

2. GENERAL

(a) What are the details of infiltration tactics as employed by the German Army?

Infiltration can only be practised by attacking forces possessing superior strength and numbers, and against an enemy whose defended line consists of separate strongpoints. The greater the distance between strongpoints and the closer the country, the more suitable become infiltration tactics. They are normally practised by night. For the latter part of the war, the position of the German armies was not such that infiltration could successfully be carried out, and consequently it was not taught. On the other hand, at any rate in ITALY, the Allies made great use of it, and the following are the points stressed in teaching defence against it:

- (i) Strong patrol activity between the strongpoints of a defensive line.
- (ii) Thickening of the defences by means of wire and mines laid in the areas between strongpoints.
- (iii) The employment of enfilading MGs firing on fixed lines.
- (iv) Defence in depth by siting heavy weapons well in rear of the forward defensive positions.
- (v) Availability of local counter-attack reserves with the task of immediately wiping out or throwing back any enemy troops that succeed in infiltrating.

(b) What is the German practice in the "build up" of an airborne operation?

No suitable source is at the moment available to answer this question.

3. AIR SUPPORT

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3. AIR SUPPORT

(a) What was the German system of Air Support Control, and what was the organization of the Army/Air staff including their communications? No suitable source is available to answer this question in the necessary detail.

(b) Was warning of impending enemy air attack obtained through intercept, and if so, was it in time to take effective action?

Enemy bombers were reported by intercept as soon as they had taken off, but as their target was not known the warning could only be a general one.

Fighters were not reported by intercept, and so no warning could be given from this source.

(a) We adopted the trench system (bombing and strafing very close to own rifle immediately prior to infantry or tank attack): did this keep their heads down until the ground attack was under way?

Sources stated that such attacks took place relatively rarely, and were of the opinion that when they did, it was because the German PDLs were required as the main defensive line by the attackers.

In such cases the defenders were forced into cover, and to some extent this kept their heads down until the attackers were upon them. Only the most seasoned troops were able to come into action in time to meet the ground attack.

(d) What were formation and unit standing orders when aircraft appeared in the area?

Orders were that on the approach of hostile aircraft, whether recon or offensive, troops were to take cover from air, and attack them with their own weapons as far as was practicable from this cover. In the case of artillery troops, they were to continue to serve their guns until their own gun crew was attacked, provided that the ground situation permitted this. If a particular gun position was attacked, the crew took cover. In the case of AA guns, crews were to continue to serve the gun even when individually attacked.

(e) What was the effect of fire bombs on morale and personnel and equipment? What was the difference between being in buildings and in the open?

The moral effect was greater than the actual, although panic was not produced among front line troops. Actual effect varied with the season of the year, the state of the vegetation, the weather, and type of surrounding buildings. Fire bomb attacks during the dry period of the summer were particularly unpleasant.

Although stone-built houses offered excellent protection, they were for this reason the more heavily attacked with both fire and HE bombs, so that to be in the open air was really the best risk.

(f) What types of air attack and aircraft were most feared? What casualties were suffered through air attack?

The fighting troops were most shaken by low-flying attacks by fighter-bombers, and bomber attacks with carpets of small fragmentation bombs were especially feared, more so than medium or heavy bombs. The troops were most impressed by attacks with large formations of four-engine bombers. Casualties varied largely about individual types of aircraft, but the Me 410 fighter had many votes.

Casualties from air attack were impossible to assess. Generally speaking they were less than casualties from ground attack. Losses in equipment were greater than in personnel.

(g) How successful was our railway interdiction programme in preventing or seriously delaying movement, especially along the BRENNER

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(g) How successful was our railway interdiction programme in preventing or seriously delaying movement, especially along the BREMER route?

More particularly in the last months of the Italian campaign, attacks on railway brought great destruction, especially by destroying installations and bridges. On the other hand it was always possible to restore at least sections of track during bad flying weather. Through rail traffic was not possible, but careful organisation of the reloading or to run for the interminable stretches, ensured that communications were never completely cut, only considerably slowed down.

(h) What was the reaction to our night armed reconces? What orders were given about vehicle lights? Did movements cease on the approach of aircraft at night?

They definitely hindered traffic on the roads by night, and movement only ceased when aircraft dropped parachute flares. The rule was to drive without any lights at all, but according to the weather, masked headlights or timed headlights could be used.

(i) What was the reaction of artillery units to light aircraft over the front line?

See answer to (d).

4. ROYAL ENGINEERS

(a) To what extent does the senior Engineer Officer at Division, Corps etc., Headquarters exercise control over the Engineer Battalions within the formation? Is his function solely that of engineer advisor to the Commander or does he in fact exercise operational command over the Engineer Battalions in the formation?

There was no Engineer Officer on the staff of a division as such; The OC of the divisional Engineer Battalion acted when necessary as the engineer advisor to the divisional commander.

On the Corps staff there was an Engineer Regimental Staff which controlled the engineer units within the formation, and at the same time advised the Corps Commander on engineer matters.

On the Army Staff there was similarly a "Senior Engineer Officer" (either a Colonel or a General).

On the staff of Army Group there was an Engineer General, as supreme authority under the G in C.

(b) What policy is adopted for the reinforcement of the divisional Engineer Battalions in an operation involving considerable engineer work?

In addition to the divisional Engineer Battalions there were also GHQ Engineer Battalions, and Engineer Construction Battalions, which were placed under command of division, corps, or Army according to operational needs, e.g. :

(i) Under command of Division for preparing defensive positions, restoring damaged roads and bridges, clearing minefields, and preparing demolitions in the divisional area.

(ii) Under command of Corps for preparing defences in the rear or other tasks as above in the Corps area.

(iii) Under command of higher formations for similar work to be carried out in the areas of such higher formations, for example preparing of large-scale demolitions, or preparing alternative defensive lines etc.

The principle was always to place an engineer battalion under command of the formation in whose area it worked.

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(c) It is understood that the responsibility for the construction of airfields and landing grounds lies with the TOTT organisation. Does their responsibility extend to the construction of advanced landing grounds in the forward areas, or is this task carried out by Army Engineers or Luftwaffe Engineers?

None of the sources interrogated could supply a satisfactory answer to this question.

TRANSLATION OF CAPTURED DOCUMENT

98 Volksgrenadier Division
C-5

Day C.B. 14-4, 45

EXTRUDINGS CAPTURED BY THE ENEMY ON 10 APRIL AND MASSA LOMBARDA
2.15.45

The offensive which began on 9 April 1945 has been marked by the enemy's enormous material superiority, in fact on a scale never before experienced by this Division.

1. Enemy Tactics

At 1400 hours 9 April 1945 the enemy began preparations for the attack by employing 4 medium bombers on carpet bombing including the artillery positions. In all, about 50 bomb carpets were laid in the Divisional area. The number of planes employed for each bombing carpet varied, probably according to the number and positions of the targets known to the enemy in the area. In general bomb carpets were laid by groups of planes each about 30 strong. The strongest group contained 112 planes (combined). Each bomb carpet was made up of large and small medium bombers and the number of bombers employed over the Division was varied between 250 and 400. The first bomb carpet was followed about 25 minutes later by a similar concentration of fire from artillery and heavy infantry weapons which covered the whole front and reached as far back as the rear positions of the enemy. This fire continued until 2300 hours. The artillery and heavy infantry weapons fired an estimated 75,000 shells. At the same time enemy aircraft were dropping in groups of 20, attacked previously reconnoitered targets (e.g. bridges, rail stations, tank positions, single moving tanks, supply dumps) and the action continued. From single dispatch riders, isolated line maintenance positions, headquarters, and biologists were attacked by fighter bombers. Single fighter bombers were attached by as many as 15 fighter bombers at a time.

After a final heavy reconnaissance of the forward positions of the enemy began his attack to push the German divisions of the SS, supported by numerous flame-thrower tanks, and the concentration of all weapons and the smoking of the entire front. By the employment of flame-thrower tanks whole areas measuring several kilometers in width and 200 meters in depth were enveloped in flames. At 1500 hours the artillery fire was concentrated on isolated 'strongholds' of enemy tanks. Throughout the whole night the enemy employed medium and heavy bombers on an unprecedented scale. A new feature was the bombing of specially chosen targets during the night (e.g., on MASSA LOMBARDA). The time of the heavy artillery reached far into the rear OPs of the Division.

The Infantry Attack

Between 2000

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1. **Eight** E.C.

At 1400 hours, 9 April 1945 the enemy began preparations for the attack by employing 4 German bombers on a general bombing including the artillery positions. In all, about 30 bomb craters were created in the Divisional area. The number of personnel killed and wounded during the attack varied, probably according to the number and the distance of the houses from the main axis of the attack. In general bomb craters were laid by means of planes each about 30 strong. The strongest group comprised 1423-860 (1st Lt.). Each bomb crater was made up of large and small craters and the number of bombs employed over the Division was estimated between 600 and 1100. The first bomb carpet was followed about 25 minutes later by a second concentration of fire from artillery and heavy infantry guns which covered the whole front and reached as far back as the rear of the Division. This fire continued until 2300 hours. The artillery added their own contribution with an estimated 75,000 shells. At the same time the enemy used a variety of tanks, armoured cars, moving tanks, supply trucks, etc., and also sent forward several isolated line units, some of which were attacked by fighter bombers and bombers at a time.

After a final heavy concentration on the forward positions of the M.L.D. (= R.F.D.I.) and continuing their drive on the ground supports the enemy began his attack by launching the first wave of the SM-10, supported by numerous flame-thrower units, and the concentrated fire of all weapons and the smoking of the vehicles etc., by the employment of flame-thrower tanks whole areas near the front lines were completely destroyed and 200 meters in depth were enveloped in flames. At 1600 hours an artillery fire was concentrated on isolated 'stumps' at these depths throughout the whole night the enemy employed medium and light mortars on an unengaged scale. A new feature was the bombing of specialist support troops during the night (e.g., on MASSA LOMBARDA). The time is too short available to check for it to the rear CPs of the Division.

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b7C

The Technology Audit:

Between 2000 hours and 2400 hours (about time undetermined) the enemy expanded a large number of air attacks (about 1000) at the places where he attacked. The results are that he took 1000 prisoners before our outposts and the units in the 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st, 32nd, 33rd, 34th, 35th, 36th, 37th, 38th, 39th, 40th, 41st, 42nd, 43rd, 44th, 45th, 46th, 47th, 48th, 49th, 50th, 51st, 52nd, 53rd, 54th, 55th, 56th, 57th, 58th, 59th, 60th, 61st, 62nd, 63rd, 64th, 65th, 66th, 67th, 68th, 69th, 70th, 71st, 72nd, 73rd, 74th, 75th, 76th, 77th, 78th, 79th, 80th, 81st, 82nd, 83rd, 84th, 85th, 86th, 87th, 88th, 89th, 90th, 91st, 92nd, 93rd, 94th, 95th, 96th, 97th, 98th, 99th, 100th, 101st, 102nd, 103rd, 104th, 105th, 106th, 107th, 108th, 109th, 110th, 111th, 112th, 113th, 114th, 115th, 116th, 117th, 118th, 119th, 120th, 121st, 122nd, 123rd, 124th, 125th, 126th, 127th, 128th, 129th, 130th, 131st, 132nd, 133rd, 134th, 135th, 136th, 137th, 138th, 139th, 140th, 141st, 142nd, 143rd, 144th, 145th, 146th, 147th, 148th, 149th, 150th, 151st, 152nd, 153rd, 154th, 155th, 156th, 157th, 158th, 159th, 160th, 161st, 162nd, 163rd, 164th, 165th, 166th, 167th, 168th, 169th, 170th, 171st, 172nd, 173rd, 174th, 175th, 176th, 177th, 178th, 179th, 180th, 181st, 182nd, 183rd, 184th, 185th, 186th, 187th, 188th, 189th, 190th, 191st, 192nd, 193rd, 194th, 195th, 196th, 197th, 198th, 199th, 200th, 201st, 202nd, 203rd, 204th, 205th, 206th, 207th, 208th, 209th, 210th, 211st, 212nd, 213th, 214th, 215th, 216th, 217th, 218th, 219th, 220th, 221st, 222nd, 223rd, 224th, 225th, 226th, 227th, 228th, 229th, 230th, 231st, 232nd, 233rd, 234th, 235th, 236th, 237th, 238th, 239th, 240th, 241st, 242nd, 243rd, 244th, 245th, 246th, 247th, 248th, 249th, 250th, 251st, 252nd, 253rd, 254th, 255th, 256th, 257th, 258th, 259th, 260th, 261st, 262nd, 263rd, 264th, 265th, 266th, 267th, 268th, 269th, 270th, 271st, 272nd, 273rd, 274th, 275th, 276th, 277th, 278th, 279th, 280th, 281st, 282nd, 283rd, 284th, 285th, 286th, 287th, 288th, 289th, 290th, 291st, 292nd, 293rd, 294th, 295th, 296th, 297th, 298th, 299th, 300th, 301st, 302nd, 303rd, 304th, 305th, 306th, 307th, 308th, 309th, 310th, 311st, 312nd, 313th, 314th, 315th, 316th, 317th, 318th, 319th, 320th, 321st, 322nd, 323rd, 324th, 325th, 326th, 327th, 328th, 329th, 330th, 331st, 332nd, 333rd, 334th, 335th, 336th, 337th, 338th, 339th, 340th, 341st, 342nd, 343rd, 344th, 345th, 346th, 347th, 348th, 349th, 350th, 351st, 352nd, 353rd, 354th, 355th, 356th, 357th, 358th, 359th, 360th, 361st, 362nd, 363rd, 364th, 365th, 366th, 367th, 368th, 369th, 370th, 371st, 372nd, 373rd, 374th, 375th, 376th, 377th, 378th, 379th, 380th, 381st, 382nd, 383rd, 384th, 385th, 386th, 387th, 388th, 389th, 390th, 391st, 392nd, 393rd, 394th, 395th, 396th, 397th, 398th, 399th, 400th, 401st, 402nd, 403rd, 404th, 405th, 406th, 407th, 408th, 409th, 410th, 411st, 412nd, 413th, 414th, 415th, 416th, 417th, 418th, 419th, 420th, 421st, 422nd, 423rd, 424th, 425th, 426th, 427th, 428th, 429th, 430th, 431st, 432nd, 433rd, 434th, 435th, 436th, 437th, 438th, 439th, 440th, 441st, 442nd, 443rd, 444th, 445th, 446th, 447th, 448th, 449th, 450th, 451st, 452nd, 453rd, 454th, 455th, 456th, 457th, 458th, 459th, 460th, 461st, 462nd, 463rd, 464th, 465th, 466th, 467th, 468th, 469th, 470th, 471st, 472nd, 473rd, 474th, 475th, 476th, 477th, 478th, 479th, 480th, 481st, 482nd, 483rd, 484th, 485th, 486th, 487th, 488th, 489th, 490th, 491st, 492nd, 493rd, 494th, 495th, 496th, 497th, 498th, 499th, 500th, 501st, 502nd, 503rd, 504th, 505th, 506th, 507th, 508th, 509th, 510th, 511st, 512nd, 513th, 514th, 515th, 516th, 517th, 518th, 519th, 520th, 521st, 522nd, 523rd, 524th, 525th, 526th, 527th, 528th, 529th, 530th, 531st, 532nd, 533rd, 534th, 535th, 536th, 537th, 538th, 539th, 540th, 541st, 542nd, 543rd, 544th, 545th, 546th, 547th, 548th, 549th, 550th, 551st, 552nd, 553rd, 554th, 555th, 556th, 557th, 558th, 559th, 560th, 561st, 562nd, 563rd, 564th, 565th, 566th, 567th, 568th, 569th, 570th, 571st, 572nd, 573rd, 574th, 575th, 576th, 577th, 578th, 579th, 580th, 581st, 582nd, 583rd, 584th, 585th, 586th, 587th, 588th, 589th, 590th, 591st, 592nd, 593rd, 594th, 595th, 596th, 597th, 598th, 599th, 600th, 601st, 602nd, 603rd, 604th, 605th, 606th, 607th, 608th, 609th, 610th, 611st, 612nd, 613th, 614th, 615th, 616th, 617th, 618th, 619th, 620th, 621st, 622nd, 623rd, 624th, 625th, 626th, 627th, 628th, 629th, 630th, 631st, 632nd, 633rd, 634th, 635th, 636th, 637th, 638th, 639th, 640th, 641st, 642nd, 643rd, 644th, 645th, 646th, 647th, 648th, 649th, 650th, 651st, 652nd, 653rd, 654th, 655th, 656th, 657th, 658th, 659th, 660th, 661st, 662nd, 663rd, 664th, 665th, 666th, 667th, 668th, 669th, 670th, 671st, 672nd, 673rd, 674th, 675th, 676th, 677th, 678th, 679th, 680th, 681st, 682nd, 683rd, 684th, 685th, 686th, 687th, 688th, 689th, 69

The outstanding feature of the entire battle was the enemy's avoidance of straight infantry fighting. As soon as he encountered points of resistance or the M.L.R. he withdrew immediately and proceeded to reduce them with his heavy weapons. On the other hand the enemy never employed mass tank formations. Tanks were only used in conjunction with strong assault detachments and both retreated as soon as the danger of close combat arose.

The enemy tended to avoid hard infantry fighting and preferred to occupy ground only after employing the strongest weight of material.

It should be emphasized that between attacks fighter bombers continuously patrolled the entire I.L.R. and strong artillery fire was maintained on rear areas.

On the following day the attack was resumed in a similar manner with almost the same material superiority (including the usual carpet-bombing).

After the second day the impression was gained that the enemy's firm grip on the conduct of operations had slightly loosened. The battle broke up into isolated attacks, each one still supported by a massive weight of material but the enemy had lost the penetrating power of the first two days. Thus, although heavy fighting continued, it was in the main localized, and such critical situations as arose were in every case restored.

II. Conclusions drawn from own tactics.

I. Chain of Command

A decisive factor in the first phase of the attack (D Day and D Day plus 1) was the cohesion of our front and maintenance of the command machinery. Doubtless, it was the enemy's intention, by the employment of superior armor and artillery, to break up our formations into small, leaderless groups, but despite the sudden loss of important communications (I/T, W/A, Liaison officers) the Division succeeded in maintaining contact because orders from the Division to the troops were of such a comprehensive nature that even if training and previous instructions correctly interpreted the general terms of the Divisional order, and acted on their own initiative when detailed orders failed to arrive.

2. Movement of reserves and deployment in depth.

On account of the enemy's tremendous air and artillery superiority, any movement, even of the smallest units on the battle field, was virtually impossible. Movements of reserves, even of single tanks, is nearly impossible during daylight. Counterattacks can only be made at dawn or dusk on a line with the Btl Cps in position must be close to the strong points in order to be able to counter-attack at once or pinch off any enemy thrusts.

Deployment in depth of the Division, including the artillery, proved of great value. The rearmost artillery after getting into well camouflaged positions was not permitted to fire.

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On account of the enemy's tremendous air and artillery superiority, any movement, even of the smallest units on the battle field, was virtually impossible. Movements of reserves, even of single tanks, is nearly impossible during daylight. Counter-attacks can only be made at dawn or dusk, on a line with the D/L QPs in order to be close to the strong points which off any enemy thrusts.

Deployment in depth of the Division, including the artillery, proved of great value. The foremost artillery, after getting into well camouflaged positions was not permitted to fire. After enemy artillery and bombing ceased 3 light Tps and 4 Medium Tps came under command of a Bn Staff.

3. Manning position during large scale fighting, i.e., withdrawal from the previous M.L.R. to new positions further to the rear in order to avoid artillery barrages, is only possible if the movement is completed before the preparatory fire starts. Should the movement be caught by enemy artillery fire or even be involved in attack by infantry the ensuing losses result in the disintegration of units. Is withdrawal before the attack is not successful it becomes necessary to repel the first attack and then withdraw.

4. The maintenance of control depends entirely on the personality of the local Commander and the employment of Liaison officers and dispatch riders. It is therefore imperative for commanders of smaller units (up to Regt's) to act on their own responsibility co-operating closely with artillery and tanks.

With the infantry one innovation proved particularly successful: this was a "Dispersal units Reception Squad" (Aufkampfbataillon) consisting of several officers and about 10 specially qualified NCOs. They were stationed at the Regimental CP under direct command of the Regt C.O. and it was their function, on critical occasions, to take up positions in rear of the unit which was being attacked, to round up dispersed units and return them to the front or to guide units retreating into new positions.

5. On account of the difficult communication situation there is a great lapse between the time of origin of an order and the time of receipt; orders from the higher command which are to be executed at dusk must therefore be in the hands of the Division not later than 1500 hrs. The countermanding of a tactical order at short notice or a complete change in plan affecting some tactical move already initiated is rendered quite impossible.

6. Manpower reserves. Personnel losses at the beginning of an attack are especially high so that without replacements the infantry on the second day of battle is no longer fit for commitment. For that reason it is recommended to keep fighting strength as low as possible and withhold strong reserves in order to replenish the infantry during the battle.

7. Communication is very difficult because of battle damage and during the first few hours almost impossible. I/T even to Regt's only operates for short periods and W/T is almost non-existent on account of loss of apparatus. The Radio Communication of the Regiments at the beginning of the attack was jammed by the enemy and completely paralyzed. The loss of communications has a particularly detrimental effect on the artillery in its counter-battery fire.

8. Most CP locations were known to the enemy. Therefore it becomes necessary - as in fact was the case with the division - to switch at once to a prepared alternative CP as soon as a large scale attack is anticipated.

III. Despite the paralyzation of supply traffic and with all the odds weighed against them, even in this battle Hell, the behaviour of officers and men of all arms was above reproach. Again and again tanks and infantry counter-attacked, defended strong points in hopeless positions, fired their guns, guided artillery through a hail of fire into alternative positions, while signal repair crews repaired the numerous breaks in wire communications. The success of the enemy was in no way commensurate with the quantity of material he employed. He did not break through.

The enemy was repeatedly guilty of breaches against the recognized laws of warfare. Through unimpeachable witnesses it can be proved that he not only shot wounded and prisoners of war but in one case (Graf. Regt 289) he used the Red Cross Flag to have us cease fire. In this manner he was able to evacuate his wounded and, then, after recognizing our defense line, blasted it with artillery.

Note by G-2 A.F.H.G.

Genlt., REINHARDT G.O.O. 98 Volksgrenadier Division. At the start of the Allied offensive of 9 April 1945, 98 V.G. Division occupied

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6. Manpower reserves. Personnel losses at the beginning of an attack are especially high so that without replacements the infantry on the second day of battle is no longer fit for commitment. For that reason it is recommended to keep fighting strength as low as possible and withhold strong reserves in order to replenish the infantry during the battle.

7. Communication is very difficult because of battle damage and during the first few hours almost impossible. L/T even to Regt's only operates for short periods and W/T is almost non-existent on account of loss of apparatus. The Radio Communication of the Regiments at the beginning of the attack was jammed by the enemy and completely paralyzed. The loss of communications has a particularly detrimental effect in the artillery in its counter-battery fire.

8. Most CP locations were known to the enemy. Therefore it becomes necessary - as in fact was the case with the division - to switch at once to a prepared alternative CP as soon as a large scale attack is anticipated.

III. Despite the paralyzation of supply traffic and with all the odds weighed against them, even in this battle hell, the behaviour of officers and men of all arms was above reproach. Again and again tanks and infantry counter-attacked, defended strong points in hopeless positions, fired their guns, guided artillery through a hail of fire into alternative positions, while signal repair crews repaired the numerous breaks in wire communications. The success of the enemy was in no way commensurate with the quantity of material he employed. He did not break through.

The enemy was repeatedly guilty of breaches against the recognized laws of warfare. Through unimpeachable witnesses it can be proved that he not only shot wounded and prisoners of war but in one case (Genl. Regt 289) he used the Red Cross Flag to have us cease fire. In this manner he was able to evacuate his wounded and, then, after recognizing our defense line, placed it with artillery. **663**

Note by G-2 A.F.H.2.

Genlt., REINHARDT G.O.C. 98 Volksgrenadier Division. At the start of the Allied offensive of 9 April 1945, 98 V.G. Division occupied a sector on the East bank of the SENIO River between H 3610 and M 3534 (G.S.G.S. Italy Map 1/250,000) and withdrew on the axis LUGO (M 3539) MASSA LOMBARDA (M 2842). Losses were exceptionally heavy: captured documents reveal that up to inclusive 14 April 45 the Division had lost 37 officers, 2152 other ranks killed, wounded, and missing. Actual strength at start of the battle was 11,241 with 917 in RA Replacement Bn. Infantry fighting strength stood at 2,237.

The "Unit", an institution from the 1940s, was mainly of a
 confidential nature. It is a single individual (120) or rather a small
 group of individuals, and was used for the large number of
 individuals in the office.

(1) In 1941 it was not clear what the actual function was,
 but it was known in the office as a unit of individuals. (There are not
 records, but the institution is known to be a small group of
 individuals, and it is known to be a small group of individuals.)

The institution is known to be a small group of individuals, and
 it is known to be a small group of individuals. (There are not
 records, but the institution is known to be a small group of
 individuals, and it is known to be a small group of individuals.)

(2) Confidential.

The institution is known to be a small group of individuals, and
 it is known to be a small group of individuals. (There are not
 records, but the institution is known to be a small group of
 individuals, and it is known to be a small group of individuals.)

The institution is known to be a small group of individuals, and
 it is known to be a small group of individuals. (There are not
 records, but the institution is known to be a small group of
 individuals, and it is known to be a small group of individuals.)

Duplicate, processed etc, which would normally be sent to the
 instruction manual for use in the field, as shown in the 12-12-50
 and subject to the same, which would be sent to the 12-12-50.

Issues to the station, which would be sent to the 12-12-50.

(4) Instructions.

(4) 31-53 of HSI 1000 - 2000 lbs in front of the 12-12-50.

(4) 1000 lbs of HSI 1000 - 2000 lbs in front of the 12-12-50.

Issues to the station, which would be sent to the 12-12-50.
 5 lbs for each aircraft.

(4) Issues to the station, which would be sent to the 12-12-50.

(The instructions which have to be filled out for aircraft
 to the aircraft. As the time taken per aircraft 2 hrs).
 which has been the "filling up" being carried out the
 aircraft in a pack, and limits the number of aircraft
 to the per aircraft.

(4) The 1000 lbs of HSI 1000 - 2000 lbs in front of the 12-12-50.
 was multiplied by the 1000 lbs and applied with the 1000 lbs
 upon instruction.

(4) The 1000 lbs of HSI 1000 - 2000 lbs in front of the 12-12-50.

(4) 1000 lbs of HSI 1000 - 2000 lbs in front of the 12-12-50.

(4) 1000 lbs of HSI 1000 - 2000 lbs in front of the 12-12-50.
 attack.

2. "Instructions" for the 12-12-50.

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"Instructions" for the 12-12-50, which would be sent to the 12-12-50.

Support to the 12-12-50, which would be sent to the 12-12-50.

Instructions for the 12-12-50, which would be sent to the 12-12-50.

Instructions.

It is noted that the majority of the cases are within 1000 to 2000 feet, and calls for further action, which should, in actual fact, have been taken over the main Air Support Unit to Air Support Central at home.

This is a note and in the fact that the main of maintaining with the Army lack of action on the situation of the Army Air Corps.

Further up station should be made this morning.

5. SUMMARY OF THE CASES.

The cases, by kind, are as follows: also other information, 1942
 present, have also suffered A.S.O. as being indicated by the fact in the radio
 section from A.S.O. at home.

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3. UNITED STATES OF AMERICA

very much, for instance, and perhaps also other persons (2). While
 currently, there are unpublished U.S. on which unpublished and in the
unpublished U.S. on which.

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SECRET

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1. INTRODUCTION.

(a) Authority.

The addition of persons, property, material and the limited number of individuals and their families to the list of persons, property, material and the limited number of individuals and their families.

(b) Authority.

The authority of the President.

2. PURPOSE AND SCOPE OF THE PROGRAM.

(a) Authority.

The purpose of the program is to provide for the security of the United States and its interests in the world.

(b) Authority.

(1) The purpose of the program is to provide for the security of the United States and its interests in the world.

(2) The purpose of the program is to provide for the security of the United States and its interests in the world.

3. SUMMARY OF THE PROGRAM.

(a) Authority.

III.

(b) Authority.

(1) The purpose of the program is to provide for the security of the United States and its interests in the world.

(2) The purpose of the program is to provide for the security of the United States and its interests in the world.

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(b) ~~unclassified~~.

The availability of information.

2.

"UNCLASSIFIED" AND "UNCLASSIFIED" ARE

(a) ~~unclassified~~.

The question is whether the information is in the public domain or not.

(b) ~~unclassified~~.

(1) ~~unclassified~~ information is information.

(2) The question is whether the information is in the public domain or not.

3. ~~unclassified~~.

(a) ~~unclassified~~.

15.

(b) ~~unclassified~~.

(1) ~~unclassified~~ information is information.

(2) The question is whether the information is in the public domain or not.

The question is whether the information is in the public domain or not.

559

1. Summary

The summary of the report is as follows: The report is a summary of the work done by the author in the field of the study of the properties of the function $f(x)$ defined on the interval $[0, 1]$ and satisfying the conditions $f(0) = 0$ and $f(1) = 1$.

Level

The author has shown that the function $f(x)$ is continuous on the interval $[0, 1]$ and that it is differentiable at every point of this interval. The author has also shown that the function $f(x)$ is not differentiable at the points $x = 0$ and $x = 1$.

2. References

The author has used the following references in the report: [1] A. N. Kolmogorov, "Foundations of the Theory of Probability", Moscow, 1933; [2] A. N. Kolmogorov, "Foundations of the Theory of Probability", Moscow, 1933; [3] A. N. Kolmogorov, "Foundations of the Theory of Probability", Moscow, 1933.

3. Conclusions

The author has shown that the function $f(x)$ is continuous on the interval $[0, 1]$ and that it is differentiable at every point of this interval. The author has also shown that the function $f(x)$ is not differentiable at the points $x = 0$ and $x = 1$.

4. Appendix

The author has shown that the function $f(x)$ is continuous on the interval $[0, 1]$ and that it is differentiable at every point of this interval. The author has also shown that the function $f(x)$ is not differentiable at the points $x = 0$ and $x = 1$.

The author has shown that the function $f(x)$ is continuous on the interval $[0, 1]$ and that it is differentiable at every point of this interval. The author has also shown that the function $f(x)$ is not differentiable at the points $x = 0$ and $x = 1$.

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[illegible]

CONTENTS

Three Jeeps equipped with wireles, provided by "KZII" for use with forward battalions, were very extensively used during the penetration of the POWME line defenses. In one instance a battalion commander received air support in 15 minutes even E.O.O. or equivalent. The average "quick time" being between 30 - 40 minutes.

There is every indication that the General's and Air Support personnel have more than justified their existence.

5. AIRBORNE SUPPORT.

Airborne photo-recon and other specialists for the past 24 hours of pilots on air re-armed targets reported by "KZII" Army. This is where the Target Section (Sub-section of American 1-2 SSG) comes into the picture.

The main object of the Target Section is to collate information from all sources relative to targets, before the target is presented to the Air Force through Air Support Control.

A very excellent system has been evolved which supplies the "case history" of every suitable target to be kept up to date. All squads of KZII and AIR 020 are now equipped with suitable annotated photographs of all these targets, and each target photograph is labeled with the 1: 100,000 map sheet number, and the target number. Thus a target photograph labeled 67-4 would mean that it is the photo map of Target No. 4 on the 1: 100,000 map sheet No. 67. It is therefore possible for Army to call for an attack on a target simply by referring to the map 67-4 to the high.

By further keeping a cross index of all information, U.S. photo coverage, results of air vision studies, attack information from it, etc., the Target Section is in a position to select targets, plan for a target's tactics.

When it is required to attack a new target of which only the first study

5. AIRCRAFT PHOTOGRAPHY

Air control photographs are used available for the benefit of pilots on all reconnaissance requests by JTF-ARV. These are through the JTF-ARV Section (Sub section of Liaison 2-2 Sub) and the picture.

The main object of the JTF-ARV Section is to collect information from all sources relative to targets, before the target is presented to the Air Force through Air Support Control.

A very excellent system has been evolved which includes the "Area History" of every incident that occurs in the area. All conditions of JTF-ARV AIR COMBAT are also listed with annotated photographs of all these targets, and each target photograph is annotated with the 1: 100,000 map sheet number, and the target number. Thus a target photograph, entitled B7-4 would show that it is on the 1: 100,000 map sheet No. 4 on the 1: 100,000 map sheet No. 27. It is therefore possible that the target is only for an attack on a target which is being attacked by JTF-ARV. A system for B7-4 to the JTF-ARV.

For further information of all information, the photo cover 657 results of previous attacks, such information from its records etc, the JTF-ARV Section is on a position to make out better, and for its own records.

When it is required to attack a target of which only the first attack is available, the point is made by S. 1: 100,000 map sheet No. 27, and when other equipment being furnished with a target later.

All target photos are annotated with the following information.

- (1) Target Photo Serial No. (which includes 1: 100,000 map sheet No.)
- (2) Sub No. 1: 25,000 scale.
- (3) Description of target.

SECRET
Approved for Release by NSA on 08-24-2014 pursuant to E.O. 13526

(LATER AND CONCURRENTLY OF OTHER AND "ROVER LATER")

Principles

1. "ROVER JOE", as originally intended, was to be based on the principles established by "ROVER DAVID". These principles were, briefly, the provision of air support by a far quicker and more accurate form than was possible by the then existing means, i.e., the deployment air support vehicles and Rear Links. By locating the "ROVER" well forward and/or high up, advantage was gained in having good observation and quick wireless communications, ground - ground, and ground - air. This meant quicker and surer wireless contact, immediate access to information about forward troops, and the possibility of traveling airborne forward. The "Cathode" was the time saving factor - the Controller and Air Liaison Officer the mobility and safety factors.

ADVANTAGES OF "ROVER JOE" AS FORWARDED AIR SUPPORT SOURCE

2. As "ROVER JOE" normally functions along the main thrust line of the ground forces, a quicker, more accurate, and safer form of direct air support can be brought to bear in an area where it is usually most needed.
3. The time required to a task emergency and call targets has been decreased.
4. As a result of "ROVER JOE's" guidance, requests have gained much valuable experience in the collection of suitable "new to do" targets, and 655 in air support vehicles generally.

DISADVANTAGES OF "ROVER JOE" AS FORWARDED AIR SUPPORT SOURCE

5. "ROVER JOE" missions being limited to low altitude (2-470, 2 x 1000 bombs - 6.5 lbs), and not 8 or 12 as there would normally be in programmed

principles established by "ROVER 4000". These principles were, briefly, the provision of air support to a fighter and close proximity from than was possible by the then existing system, i.e. the deployment of support fighters and their tanks. By locating the "ROVER" in the forward and/or high up, advantage was gained in having good observation and quick wireless communications, ground - ground, and ground - air. This meant quicker and surer wireless contact, immediate access to information about friendly forces, and the possibility of briefing friendly aircraft. The "ROVER" was the time saving factor - the Controller and his ability to direct the economy and safety factors.

MISSIONS OF "ROVER 4000" AS FORTH IN SUPPORT OF THE

2. As "ROVER 4000" normally functions close to the front line of the ground forces, it fighter, tank, and other forms of direct air support can be brought to bear in an area where it is usually not needed.

3. The time required to a back emergency and call targets has been decreased.

4. As a result of "ROVER 4000" guidance, requirements have been a much valuable experience in the collection of intelligence "ROVER 4000" can do, and 655 in air support missions generally.

MISSIONS OF "ROVER 4000" AS FORTH IN SUPPORT OF THE

5. "ROVER 4000" missions being limited to four aircraft (P-47s, 2 x B-26s, 2 x B-25s), and now 6 or 7 in there would normally be in emergency missions, means that the number of aircraft has been considerably reduced.

6. Despite the reduction in the number of aircraft, the results of the day, but in contrast to the day.

7. Intermittent Reliability in FOT targets as a result of the lack of the target.
8. Intermittent Reliability of targets allotted to appropriate targets as a result of the lack of the target.
9. Intermittent Reliability of targets allotted to appropriate targets as a result of the lack of the target.
10. Intermittent Reliability of targets allotted to appropriate targets as a result of the lack of the target.
11. Intermittent Reliability of targets allotted to appropriate targets as a result of the lack of the target.
12. Intermittent Reliability of targets allotted to appropriate targets as a result of the lack of the target.
13. Intermittent Reliability of targets allotted to appropriate targets as a result of the lack of the target.
14. Intermittent Reliability of targets allotted to appropriate targets as a result of the lack of the target.
15. Intermittent Reliability of targets allotted to appropriate targets as a result of the lack of the target.

8. Missions "T-2800 20" to "T-2800 20" every 30 min. Each gives "T-2800 20" only a line to establish each hour, i.e., five briefing before to distribution after establishment. It is a time that 20 min. are quite sufficient given normal time holding ability by pilots.
10. If the time target requests are received by "T-2800 20", the task of judging whether the requests are sufficient. This function must be unnecessary delay in approving these targets accepted. Requests from regiments are made to be given to a command, and then.

"T-2800 20"

11. As with "T-2800 20", the responsibility of deciding whether the target is received is on targets for which they will "T-2800 20", to regiments often that in "T-2800 20". There are usually 500-1000 km. from ahead of the forward line of troops, and historically assist "T-2800 20" in reaching a decision.

LESSON LEARNED FROM THE T-2800 20

12. While every effort is made to make the use of attached artillery units to indicate targets, a high controller on pilot's side, however dependent upon it, it has been necessary in many instances.
13. During the time's use of existing target system of varying position and target capabilities to be developed with considerable success.
14. The system is expected to be used as follows:
 - (a) "Indicator" (same as the target, on the target, 1000' of the target).
 - (b) "Bracket" (same as the target, on the target, 1000' of the target).
 - (c) "Time" (it is not either of an indicator or a bracket the target).

(14)

22. "American Jews" in self-support. Substantially as for non-Jews.

Figure 4: $L_{\text{eff}}(t)$ vs. t for $\beta = 0.001$ and $\beta = 0.0001$ (see text for details).

CONCLUSION

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35. The above information is being furnished to you for your information only and is not to be disseminated outside your agency. (This includes the information in this document.)

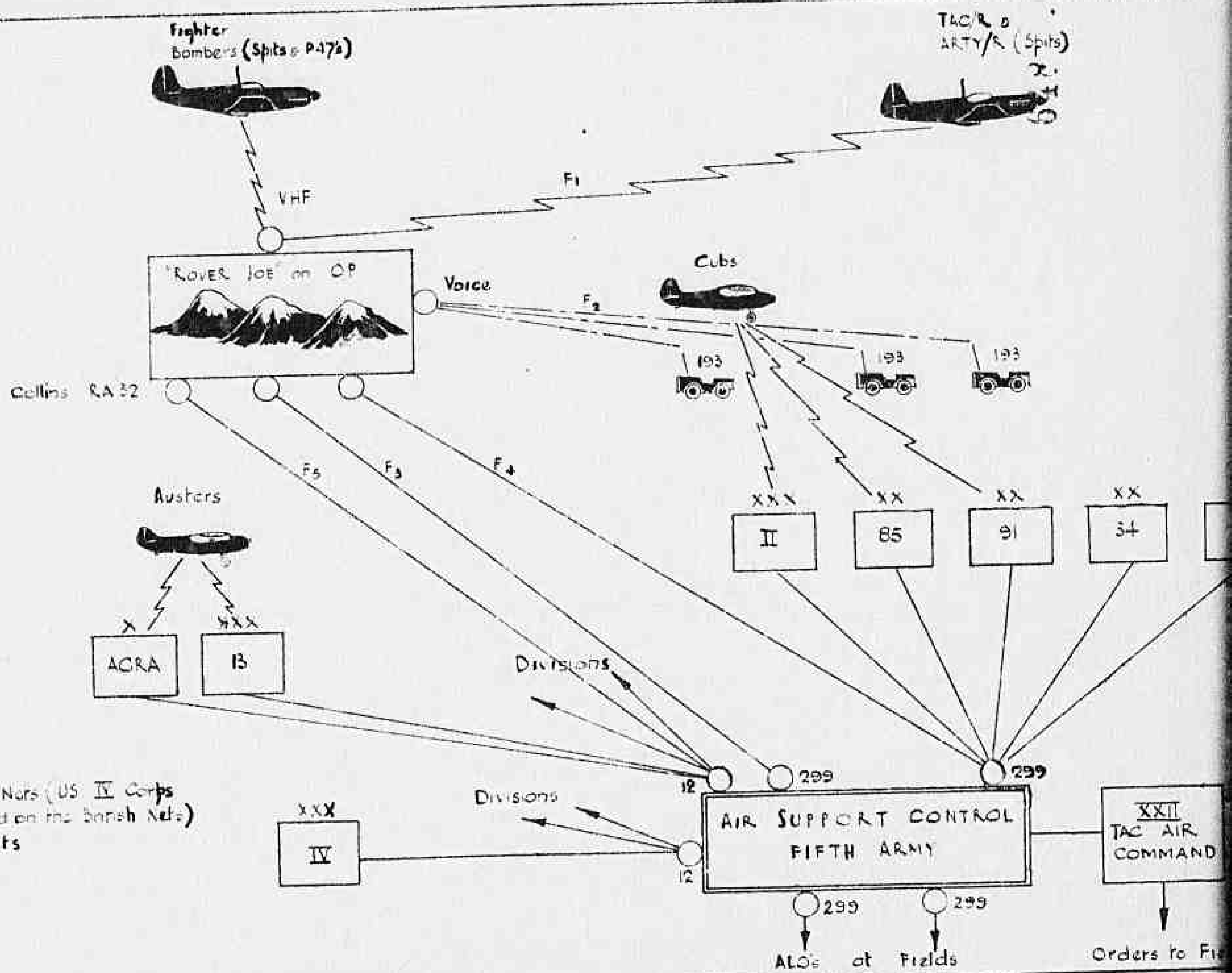
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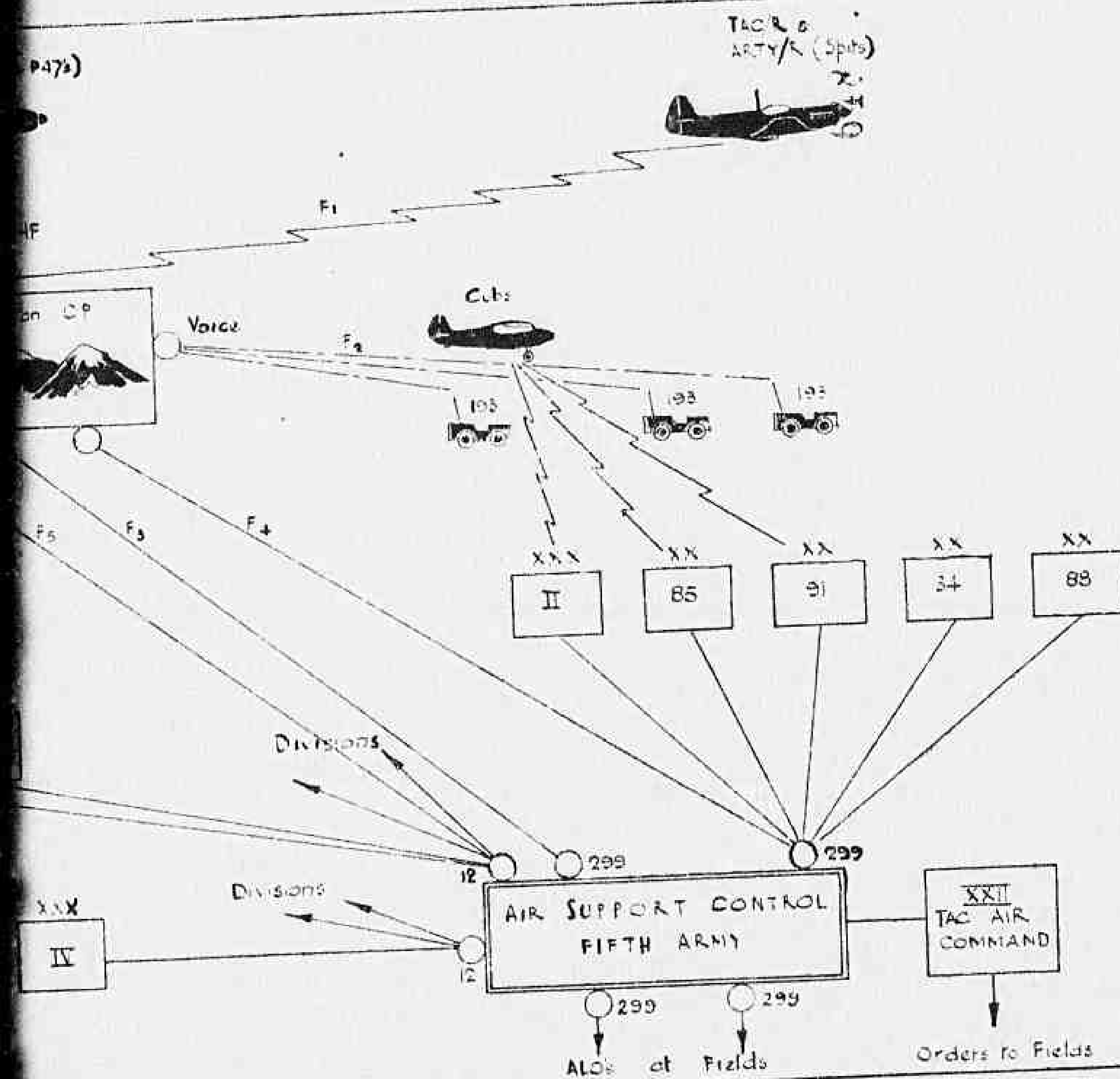
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SIGNALS LAYOUT FOR "ROVER JOE"

— AS AT 29 OCT 1944 —

SECRET

ALS LAYOUT FOR "ROVER JOE"
 — AS AT 29 OCT 1944 —

Transmitted By: VK Model Set RE
 Date: 5 Dec 44
 Org No: Op-110/44

SECRET

NOTES
FROM THE
ALLIED BRIDGEHEAD
FORCE



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NOTES
FROM THE
ALLIED BRIDGEHEAD
FORCE



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DIRECTORATE
OF
MILITARY TRAINING
C.M.F.
MAY 1944.

P R E F A C E

The following questionnaire and notes were compiled by D.M.T. Observers during a visit to AUMJIC from 28 Apr to 2 May.

They have been approved by H.Q. VI (U.S.) Corps - and where 1 Division and 5 Division are quoted - by Commanders 1 and 5 British Infantry Divisions respectively.

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P R E F A C E

The following questionnaire and notes were compiled

by D.M.T. Observers during a visit to ANZIO from 20 Apr to 2 May.

They have been approved by H.Q. VI (U.S.) Corps - and where 1 Division and 5 Division are quoted - by Commanders 1 and 5 British Infantry Divisions respectively.

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QUESTIONNAIRE.

QUESTION 1.

What is the counter mortar organisation?

ANSWER (5 Div)

1. The opinions expressed in 5 Div are similar to those expressed elsewhere - but although the W.E. for C.M. organisation (see para 4) envisages its control being under R.A. officers, Genl 5 Div is of the opinion that it should be part of the H.Q. of the Support Battalion and not part of C.R.A.'s staff, and with the 2 I.C. as C.M.O. The C.M. office could be adjacent to one of the Brigade H.Q.s, and could use as far as possible existing channels of communication. In addition, it would require 6 telephones, line, and a line party.

2. Enemy mortars are best engaged by the following, in order of priority -

4.2 mortars

3.7 H.A. aircraft

Upper register.

3. Enemy mortars are plotted and listed by Div C.R.O. Traces and lists are published frequently. Each counter mortar organisation is allotted a block of numbers prefixed by EM thus -

EM 1	-	100	Div C.M.O.
EM 101	-	200	X Brigade.
EM 201	-	300	Y Brigade.
EM 301	-	400	Z Brigade.

Each hostile mortar when found is numbered accordingly.

4. A war establishment for the Divisional counter mortar organisation has already been proposed and is waiting approval.

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elsewhere - but although the W.E. for C.M. organisation (see para 4) envisages its control being under R.A. officers, Comd 5 Div is of the opinion that it should be part of the H.Q. of the Support Battalion and not part of C.R.A.'s staff, and with the 2 L.C. as C.M.C. The C.M. office could be adjacent to one of the Brigades H.Q.s, and could use as far as possible existing channels of communication. In addition, it would require 6 telephones, line, and a line party.

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DM 1	-	100	Div C.M.C.
DM 101	-	200	X Brigade.
DM 201	-	300	Y Brigade.
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Each hostile mortar when found is numbered accordingly.

4. A war establishment for the Divisional counter mortar organisation has already been proposed and is waiting approval.

(Letter from Chief Field Artillery Section AFHQ 2303/16/12RA dated

15 April 1944 refers).

Divisional Counter Mortar

Transport.

C.M.C. (major or capt R.A.)	1	15 mt	1
A.C.M.C. (lieut)	2	Jeep	1
Clerks.	4		
Batman-drivers	2		

<u>Infantry Bridge Counter Mortar</u>		<u>Transport</u>
A.C.M.O. (Capt or Lieut R.A.)	1	15 cwt
Clerks	2	
Orator N.C.O.	1	
Batman-driver.	1	

Intercommunication. Following additional channels are required

and will be provided from Divisional resources :-

- C.M.O. to each of three A.C.L.O.s.
- to HQ. R.A.
- to C.I.O.
- A.C.M.O. to 4.2 mortar company H.Q.
- to mortar C.P.S.
- to H.A. troops.

ANSWER (1 Div)

See Annexure "A"

QUESTION. 2.

What is known of the German wireless controlled tank ?

ANSWER (1 Div)

Two types have been met; neither has had any success.

- (a) A very small tank, about a quarter the size of a Jeep. These were unarmoured and were stopped by small arms fire.

They were apparently controlled from a control tank of normal type.

- (b) A tank about the size of a carrier, lightly armoured. This appears to have been driven so far by one man, who got out and sent it forward alone for the last part of its journey. Its task

043

was to drop 1,000 lbs TNT under a bridge. One has been seen

to HQ, R.A.

to C.B.O.

A.C.M.O. to 4.2 mortar company H.O.

to mortar C.B.S.

to Hill troops.

ANSWER (1 Div)

See Annexure "A"

QUESTION. 2.

What is known of the German wireless controlled tank?

ANSWER (1 Div)

Two types have been met; neither has had any success.

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They were apparently controlled from a control tank of normal type.

- (b) A tank about the size of a carrier, lightly armoured. This appears to have been driven so far by one man, who got out and sent it forward alone for the last part of its journey. Its task was to drop 1,000 lbs TNT under a bridge. Only one has been seen.

NOTE: Details are contained in VI Corps G-2 Report No. 207 dated 22 Apr 44.

QUESTION 3.

What is the organisation for supply by Jeep?

ANSWER (5 Div)

1. The Bantam supply platoon is an R.A.S.C. 2nd line sub-unit and is organised on the same basis as an ordinary transport platoon R.A.S.C.
2. The Jeep platoon is normally used in the bridgehead for supply of 25 pr ammunition to gun positions when exposure prevents the use of 3 ton vehicles.

At other times it has been used to assist in Brigade reliefs particularly:-

- (a) relief of Brigade Support Coys.
- (b) carriage of 4.2" and 3" mortar ammunition over ground normally impossible to larger vehicles.

3. Each Battalion has two Jeeps and trailers which collect in the normal way from supply points.

There is only one Battalion area on the Divisional front where the Coy H.Q.s cannot be reached by Jeep and trailer.

QUESTION 4.

What are the problems of supply in the forward areas?

ANSWER (4 Div)

Man portage is often necessary. In some cases the conditions which have compelled the use of porters have prevented the deployment of carriers and 4 Tk guns. The men of these platoons have therefore been available as porters. Almost all drivers and other "G" Echelon personnel have been used as porters.

NOTE: 4 Tk and carrier personnel have also been deployed in a "rifle platoon" role.

at other times it has been used to assist in Brigade reliefs particularly:-

- (a) relief of Brigade Support Coys.
- (b) carriage of 4.2" and 3" mortar ammunition over ground normally impossible to larger vehicles.

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QUESTION 4.

What are the problems of supply in the forward areas?

ANSWER (1 Div)

Man portage is often necessary. In some cases the conditions which have compelled the use of porters have prevented the deployment of carriers and a Tk gun. The men of these platoons have therefore been available as porters. Almost all drivers and other "D" Echelon personnel have been used as porters.

NOTE: A Tk and carrier personnel have also been deployed in a "rifle platoon" role.

QUESTION 5.

What facilities exist for rest and recreation?

ANSWER. (1 Div)

The following is a typical roster for Infantry Battalions:-

9 days in the line.

3 " " reserve

6 " " at rest.

The rest area is sometimes shelled, and troops at rest have become casualties. There are baths, cinemas, football grounds, and unit canteens. Sub-unit and individual training is carried out in the rest areas.

ANSWER (5 Div)

(a) Reliefs.

One brigade plus one battalion/in reserve and out of the line.

The Div Recon Regiment is fighting as an ordinary infantry battalion - and this enables the extra battalion to go into reserve.

Reliefs vary, according to the particular sector held.

One week is normal in the stickiest sector, and one month in the least sticky.

(b) Rest and Recreation.

The four battalions in reserve are rested as much as possible, and every facility that can be is given to games. Cricket is played, and a football league which includes the Beach Group is in progress.

Bathing is being organised, somewhat under difficulties as the beach is heavily mined and the enemy has a tendency to airburst bathing parties. Strips are being cleared on the beach, and a suitable bathing site out of view of the enemy has been found, and VI Corps are offering bathing trunks at 65 lire a pair!

There is a mobile cinema, at present in the

(a) Reliefs.

One brigade plus one battalion^{is} in reserve and out of the line. The Div Recon Regiment is fighting as an ordinary infantry battalion - and this enables the entire battalion to go into reserve.

Reliefs vary, according to the particular sector held. One week is normal in the stickiest sector, and one month in the least sticky.

(b) Rest and Recreation.

The four battalions in reserve are rested as much as possible, and every facility that can be given to them. Cricket is played, and a football league which includes the Beach Group is in progress.

Bathing is being organised, somewhat under difficulties as the beach is heavily mined and the enemy has a tendency to airburst bathing parties. Strips are being cleared on the beach, and a suitable bathing site out of view of the enemy has been found, and VI Corps are offering bathing trunks at 65 lire a pair.

There is a mobile cinema, at present installed in a building near the sea. There is a complaint that the films are changed far too infrequently.

There is also a Divisional Concert Party.

The Director of Welfare has been up to the beach head and he is doing his best to get some equipment and other items that are wanted.

(c) Leave ex ANZIC.

This is considered at present insufficient. 5 Div have a 6-day turn round of 10 officers and 150 O.R.s. 21 Beach Group has an allotment of 3 officers and 40 O.R.s for the same period.

QUESTION 5.

(a) Is the 15-cwt office truck still used?

(b) Is a 3-ton office lorry required?

ANSWER (4 and 5 Divs)

(a) Yes, under difficulties.

(b) Yes. The 15 cwt is considered inconvenient and badly designed. It is too small. When the office kit is packed there is no room for the clerks. Even when set up as an office it is very cramped.

QUESTION 7.

Are push cycles of any use in Infantry Battalions?

ANSWER (1 Div)

Not in any battle conditions experienced up to date.

ANSWER (5 Div)

Forward battalions cannot use them and reserve battalions find it difficult on account of bad going.

QUESTION 8.

(a) Are A Pers mines used by us?

(b) Is their use recommended?

ANSWER (1 Div)

(a) They are used extensively by us.

ANSWER (1 and 5 Divs)

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- (b) Yes. The 15 cat is considered inconvenient and badly designed. It is too small. When the office kit is packed there is no room for the clerks. Even when set up as an office it is very cramped.

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ANSWER (5 Div)

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QUESTION 8.

- (a) are "Ferry mines used by us ?
- (b) Is their use recommended ?

ANSWER (1 Div)

- (a) They are used extensively by H.Q. troops, to a less extent by British troops.

(b) Their use on a large scale is not recommended. On some occasions they may be useful to neutralize ground which our troops do not use.

They are dangerous to our troops for the following reasons :-

- (i) They will remain in position after we advance.
- (ii) Tapes and notices may be shifted or destroyed by shell fire. 1 Div have had over 50 casualties from our own s. Pers mines.

ANSWER (VI Corps)

The consensus of opinion is that they have been used too freely at ANZIO and have caused an undue number of casualties to our troops.

They are useful as follows :-

- (a) To cover ground which cannot easily be covered by other means.
- (b) In areas which are unlikely to be used by our troops.
- (c) In areas from which our troops are likely to withdraw.

The laying of s. Pers mines should be strictly controlled on a high level, and the greatest care should be taken to mark the limits of fields.

ANSWER 5 DIV.

The following have been used :-

British shrapnel mines.

Pencil mines.

Hawkins grenades adapted for s. Pers by having a part of the bridge removed. Some difficulty has been found with these.

On the left sector near ~~the~~ see a great many s. Pers have been used by previous units, and casualties have been suffered as there had been no record kept of mines laid. Too great a stress cannot be laid on the importance of marking one's own minefield. 5,000 British s. Pers are being made and sent

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On the left sector near ~~the~~ sea a great many Pers have been used by previous units, and casualties have been suffered as there had been no record kept of mines laid. Too great a stress cannot be laid on the importance of marking one's own minefields. 5,000 British mines are being made and sent up to the bridgehead.

QUESTION 2.

Is a percussion grenade required?

ANSWER (1 and 5 Div)

No.

QUESTION 10.

Is the 77 Grenade a success?

ANSWER (1 Div)

Yes - definitely.

ANSWER (5 Div)

Battalions have these grenades but they have been very seldom used.

QUESTION 11.

Is the Bren tripod useful?

ANSWER (1 Div)

Yes, in the present type of position warfare.

ANSWER (5 Div)

All battalions use these for firing on fixed lines at night. Two per company and four per carrier platoon are considered sufficient. These are kept in a battalion pool and issued as required. Fixed line should be limited to 400 yards.

QUESTION 12.

are periscopes required by infantry?

ANSWER (1 Div)

Yes - they are most useful.

ANSWER (5 Div)

In the very close country on the left of the Bridgehead O.P. work is difficult, and an issue of two "Donkey Bars" periscopes to each "I" Section would, for this type of warfare, greatly assist. Each battalion has seven No. 25 periscopes. The Division is being allotted 50x 14" non-magnification periscopes.

QUESTION 13.

Are dischargers needed?

ANSWER (1 Div)

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Yes, in the present type of position warfare.

ANSWER (5 Div)

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QUESTION 13.

Are discharge caps needed?

ANSWER (1 Div)

Yes. They are of considerable value.

ANSWER (5 Div)

Each brigade has a pool of twelve discharger cups which it can allot according to the sectors held by the battalions. Within a battalion they are only used by companies who are in very close proximity to the enemy, and six is considered sufficient. The airbursting of 4 200 grenades has been done with success.

ANSWER (VI Corps)

They are only useful in certain conditions. It is therefore recommended that they be kept as a Divisional pool.

QUESTION 14.

Is a more powerful set than the 10 set required for control on the battalion net? (This would be battalion equipment, whereas the rear link set is Div Sig's equipment)

ANSWER (1 Div and VI Corps)

Opinion is divided on this point.

ANSWER (5 Div)

The 10 set has given a satisfactory performance except in exceptionally wet weather. While it is admitted that in some exceptional cases a more powerful forward control set would be necessary, it is generally not so. Any set more powerful than the 21 would be two-man pack, and could not be operated on the move. Battalion H.Q. would therefore in any case always have to move on 10 set with it; and would also have to carry above, employing extra men and reliefs to do so, this other set which would be seldom used.

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QUESTION 15

Has the obscuring of the Harbour by smoke been a success, and what were the communications used for the control of the generators?

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set is Div Signal equipment)

ANSWER (1 Div and VI Corps)

Opinion is divided on this point.

ANSWER (5 Div)

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QUESTION 15

Has the obscuring of the horizon by smoke been a success, and what were the communications used for the control of the generators?

ANSWER (VI Corps)

Smoke has been an unqualified success. The smoke effort is divided into two parts :-

Part I. The night screening of the port.

(a) A fog oil generator line stretches from a point half way between ANZIO and NETTUNO due WEST to a point on the coast N.W. of ANZIO.
(See sketch Appx "A.")

The equipment used is the static HESSLAR oil generator and is manned by U.S. personnel. There are 37 generators in the line.

(b) A quick smoke line stretches along the coast road immediately round the port.

The equipment used is the ordinary smoke canister M.C.1 and is manned half by U.S. personnel and half by SMALZIS of 1891 Pioneer Coy. There are twenty smoke points in the line.

(c) Operation. At dawn and dusk each day both the fog oil and quick smoke lines are turned on for 30 mins.

On a "Red" alert after dark both lines are at once turned on. When the smoke from the fog oil line has drifted sufficiently far SOUTH to reach the quick smoke line, the latter is turned off.

Should the wind be unfavourable and blow off the sea, a line of oil generators, carried on small patrol vessels which lie about 1,000 yds off to the SOUTH of the port, come into action.

(d) Control. H.Q. is situated in a building at NETTUNO, and is linked to the air raid warning system by line. "Red" alert is quickly passed by line to each generator post or smoke point. The whole system is duplicated by radio which is only used if line communication becomes impossible.

(e) Consumption. The fog oil line during the busiest period, just after the initial landing, used an average of 9,000 gals per night. Now the average is 3,000 gals per night, 2,000 gals of this being used for the dawn and dusk screens.

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On a "Red" alert after dark both lines are at once turned on. When the smoke from the fog oil line has drifted sufficiently far SOUTH to reach the quick smoke line, the latter is turned off.

Should the wind be unfavorable and blow off the sea, a line of oil generators, carried on small patrol vessels which lie about 1,000 yds off to the SOUTH of the port, come into action.

(d) Control. R. is situated in a building at WENTHROP, and is linked to the air raid warning system by line. "Red" alert is quickly passed by line to each generator post or smoke point. The whole system is duplicated by radio which is only used if line communication becomes impossible.

(e) Consumption. The fog oil line during the busiest period, just after the initial landing, used an average of 9,000 gals per night. Now the average is 3,000 gals per night, 2,000 gals of this being used for the dawn and dusk screens.

PART II. The day screening of the port.

(a) This screen stretches for 15 miles and is situated about 4 miles inland (see sketch at APPX "3") Its purpose is to create a haze barrier and so screen the port and adjacent coast line from enemy O.P.s.

The equipment used is the ESSO M1 generator which works on the same principle as the HUBBARD. One generator is positioned approximately every 1,000 yards of front.

(b) Operation and consumption. The screen is in operation from first light until dark and the average consumption is 6,000 - 9,000 gals per day. Recently on a day when there was a 25 m.p.h. wind coming from an unfavourable direction, 22,000 gals were used.

(c) Control. Communication is by radio to each group of four generators, which have line communication with each other. The output is controlled throughout the day from an O.P. on the top of the H.Q. building, the smoke output being increased or decreased according to the behaviour of the wind.

(d) In order to try and defeat this screen, the enemy established O.P.s on two towers right on the sea edge some distance away on either side of the bridgehead.

This was in its turn defeated by stationing a patrol vessel two miles off on either flank of the port, and wherever the wind is favourable a screen is made from ship to shore.

QUESTION 16.

What type of wiring is used?

ANSWER (1 Div)

Triple Darnert fence with stakes is efficient, but conspicuous. ^{Stake} Darnert is not much use. Double rayon is inefficient and laborious to construct.

Both tactical and defensive wire is used. The screw picket is found to be more efficient than the angle iron, and can be put into position

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QUESTION 15.

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Dannert is not much use. Double screen is inefficient and laborious to construct. Both tactical and defensive wire is used. The screw picket is found to be more efficient than the angle iron, and can be put into position with less noise.

ANSWER (5 Div)

In places where our own, and enemy, troops are only separated by a few yards, little or no wiring is possible. On the left sector a considerable amount of wiring has been done.

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This consists of triple barbed, or when this has not been available, double apron fence. Nothing less than this is considered adequate. The left sector is thinly held and the wire has been sited in conjunction with mines to block the gaps, the wire being covered by light automatic fire. This assists in preventing penetration.

The enemy has at one place in this sector erected a double apron fence 6 ft high.

QUESTION 17.

Are trip wire flares used?

ANSWER (1 Div)

Yes. A good type has been produced, with a Veroy light (for quick illumination) at one end, and a 2" mortar flare (for volume), at the other. They require regular maintenance. There is no known case of successful use against the enemy.

ANSWER (5 Div)

Tripwire flares are in use and have proved very satisfactory. The type in use consists of a white Veroy light cartridge tied to a stick and connected with a detonator. The wire with a pull igniter is stretched from this. This apparatus is simple and its parts are readily available and can be quickly made up by U.L. or unit pioneers. The Americans are reputed to use this type of flare in conjunction with a grenade. A similar auto-sentry is used firing a 2" illuminating mortar bomb.

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QUESTION 18.

Any points on flame throwers?

ANSWER (1 Div)

QUESTION 17.

Are trip wire flares used?

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QUESTION 18.

Any points on flame throwers?

ANSWER (1 Div)

(a) Our. Flame throwers have not been used in battle. On the evidence of out of battle trials the man pack flame thrower is thought to be unsatisfactory.

ANSWER (5 Div)

The Americans have a tank in which they have installed a man-pack flame throwing equipment, but it has not been tried in action, and as the range is only 40 yds it is doubtful whether it would be effective.

(b) Drawn.

ANSWER (1 Div)

See Annexure "H"

ANSWER (5 Div)

Enemy attacked a platoon of one Battalion with four flame throwing teams, each team carrying a 2-man pack equipment. A smoke screen was first put down in front of the platoon, the flame throwers then approached within 30 - 40 yds and fired. The attack was completely unsuccessful. The point of origin of the jet could be clearly seen through the smoke. Fire was at once opened by Brens at these points, and two tanks were killed and the other two abandoned their equipment and fled. The enemy did not have time to empty his containers. The attack was so easy to defeat, and the danger to the enemy from his own equipment so obviously great that the troops in this sector are entirely confident of defeating any similar attack.

A forward platoon in another sector having defeated a similar attack found that their automatic weapons had been splashed with unburnt liquid from a flame thrower and that the working parts had stuck. The weapons had to be stripped and cleaned before they would work. This was presumably due to the very heavy nature of the fuel which contains a proportion of rubber solution.

QUESTION 19.

Has the 2" mortar proved useful?

ANSWER (1 Div)

It is an excellent weapon.

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QUESTION 12.

Has the 2" mortar proved useful?

ANSWER (1 Day)

It is an excellent weapon.

QUESTION 20.

Has the American 8" Howitzer mounted and has it been a success?

ANSWER (VI Corps)

Yes, it has been shot quite frequently and has been very successful. It has shown itself to be very accurate.

Its effective range is 12,000 yds. The targets engaged have been built up areas, large houses etc that are known to be occupied.

It has been used effectively for C.D. work.

In addition to the 8" how there are also two new 23 cm guns. They have an effective range of 25,000 yds. These also are very accurate and have been used on similar targets to 8" how.

None of these guns have so far been spotted by the enemy and have been left untested.

The Allied Forces appear to have, in spite of the ground, far the best observation. The enemy is looking mostly into the sun except in the early morning; and when there is no smoke, the usual sea haze hinders him. The impression is that most of the enemy shooting is done blind. He attacks the area with shells because he has not got the observation to correct on to specific point targets. Many shells of a large calibre are fired periodically. From fragments found they are thought to be 280 mm. Where this gun or guns are, or whether they are railway guns, is not known.

German P.W. have stated that 410 mm guns are on their way down prior to coming into action against the beach head. No confirmation of this is available.

The 410 has a range of 45,000 yds and fires a 2,400 lb shell.

The 240 railway guns are thought to be still in action but their exact whereabouts is not known.

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In addition to the 3" how there are also two new 2.5" guns.

They have an effective range of 25,000 yds. These also are very accurate and have been used on similar targets to 5" How.

None of these guns have so far been spotted by the enemy and have been left unbothered.

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The 410 has a range of 45,000 yds and fires a 2,100 lb shell.

The 240 railway guns are thought to be still in action but their exact whereabouts is not known.

QUESTION 21.

Any points on U.S. Tank Destroyers?

ANSWER (4 Div)

Tank Destroyers are invaluable. There is a temptation to misuse them in two ways :-

- (a) To keep all available tank destroyers permanently deployed. This is the task of the ordinary T.E. gun, and deprives the tank destroyer of its surprise value. It also interferes with maintenance.
- (b) To use them in a mobile role, to engage hostile tanks in the open. This role can only be undertaken by tanks, not by T.E. guns.

ANSWER (VI Corps)

- (a) More than 75% of the German tanks destroyed at ANZIO by tank destroyers have been knocked out at over 2,000 yds range. It is recognised that when possible fire should be withheld until tanks approach to a closer range, but this result proves the effectiveness of the tank destroyer when circumstances prevent this.
- (b) The tank destroyer has frequently been used for firing H.E., usually from indirect positions.
- (c) Night shoots have been carried out from direct fire positions. The target has been illuminated by star shells fired from other tank destroyers in indirect positions.

QUESTION 22.

Are O.P.s blinded by Spring foliage?

ANSWER (1 Div)

Yes. One O.P. per Regiment is being constructed, of tubular scaffolding 22 ft high, for use in woods.

ANSWER (5 Div)

Yes. With the trees now in leaf, infantry O.P.s are finding it difficult to observe. Periscopes as already stated would assist.

Artificial ladder O.P.s are only possible for distant observation,

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ANSWER (5 Div)

- Yes. With the trees now in leaf, Infantry O.P.s are finding it
difficult to observe. Periscopes as already stated would assist.
Artificial ladder O.P.s are only possible for distant observation,
and they are being used by Artillery O.P.s.

QUESTION 21.

Has any form of luminous sign or direction post been used?

ANSWER (5 Div)

A small round luminous disc that can be fastened to trees, posts, etc has been produced by U.S., but they are not in general use. The white tape still seems the most usual method of marking routes.

The Division has obtained from U.S. sources -

- (a) a luminous radio active button. This can be fixed on the back of a steel helmet, on trees, bridges, etc. It should not be carried about on the person as it may have harmful effects.
- (b) Flashin Neon Light. This is quite small and is an excellent means of marking a debussing point, C.M.P. checkpoint, road division etc. One battery will last 12 months.
- (c) Neon Lamp. This is flexible and worked from a small battery carried in the pocket. It is useful for traffic control.

QUESTION 22.

Is there any further information on "Winder".

ANSWER (VI Corps)

There seems to have been no further developments. The enemy continues to use it extensively on every raid, except when doing low level attacks. The latest RADAR equipment has comparatively little difficulty in differentiating between the two types oriented, and can steer through it. On the most recent raid 40 planes came in and dropped window extensively. In spite of this 3 were shot down, i.e. over 20 %. As long as the most modern RADAR equipment and highly trained operators to man it are available there seems no danger of WINDOW seriously affecting

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back of a steel helmet, on trees, bridges, etc. It should not be carried about on the person as it may have harmful effects.

- (b) Flashing Neon Light. This is quite small and is an excellent means of marking a rendezvous point, C.M.P. checkpoint, road division etc. One battery will last 12 hours.
- (c) Neon Wand. This is flexible and worked from a small battery carried in the pocket. It is useful for traffic control.

QUESTION 24.

Is there any further information on "Window"?

ANSWER (VI Corps)

There seems to have been no further developments. The enemy continues to use it extensively on every raid, except when doing low level attacks. The latest REBAR equipment has comparatively little difficulty in differentiating between the two images created, and can steer through it. On the most recent raid HQ Jones came in and dropped window extensively. In spite of this 9 were shot down, i.e. over 20 %. As long as the most modern REBAR equipment and highly trained operators to man it are available there seems no danger of window seriously affecting us.

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QUESTION 25.

Body Armour.

- (a) Has this been tried?
- (b) Is there a demand for it?

ANSWER 25. (5 Day)

- (a) No instances yet?
- (b) No. Its weight and discomfort in hot weather would seem to outweigh any advantages it may have.

QUESTION 26.

Is the Air O.P. useful?

ANSWER (1 Day)

- (a) Yes, it is invaluable in ANZIO where ground observation is restricted.
- (b) In ANZIO oneflight is under command each British Infantry Division. This works well, and results in close co-operation with Divisional Artillery.
- (c) The fire of 4.2" mortars has been successfully controlled by the Air O.P.
- (d) The Air O.P. is often used for rescue by Battalion Commanders and others. It is thought that if this is to become a general practice "General purposes" squadrons should be introduced. It is a waste of trained i.e. officers to use them as "General purposes" pilots.

QUESTION 27.

Any new points on patrolling?

ANSWER (1 Day)

Narrowness of 'No Man's Land' restricts patrol enterprise. On some parts of the front the enemy hardly patrols at all. (VI Corps) Conditions are different on other Divisional fronts.

- (a) Yes, it is invaluable in ANZIO where ground observation is restricted.
- (b) In ANZIO daylight is under command each British Infantry Division. This works well, and results in close co-operation with Divisional artillery.
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- (d) The Air O.P. is often used for recon by Battalion Commanders and others. It is thought that if this is to become a general practice "general purposes" squadrons should be introduced. It is a waste of trained men, officers to use them as "general purposes" pilots.

QUESTION 27.

Any new points on patrolling?

ANSWER (1 DIV)

Narrowness of 'McLean's Land' restricts patrol enterprises.

On some parts of the front the enemy hardly patrols at all.

(VI Corps) Conditions are different on other Divisional fronts.

QUESTION 28.

Any points on snipers?

ANSWER (1 DIV)

There has been a drive to improve the standard of sniping.

QUESTION 29.

Any developments in trench design?

ANSWER (1 Div)

Yes. The slit trenches in forward areas have been connected up, and considerable lengths of small trenches have been dug.

QUESTION 30.

Are the Divisional L.A.A. Regiments under the control of the Beach Head A.A. Brigade Commander?

ANSWER (1 Div)

They open fire at night under his orders. For all other purposes they are under Divisional control.

QUESTION 31.

Any new methods of traffic control?

ANSWER (1 Div)

Provost Coy have small arrows fitted on the front bulguard of motor cycles. These can be illuminated when the motor cycle is stationary and the motor cycle (and arrow) are pointed in the direction the traffic is to go.

QUESTION 32.

Any information about aircraft flares?

ANSWER (VI Corps)

They have only been used by the Allies in ANZIO to a negligible extent.

QUESTION 33.

Has coloured smoke been used by the Allies in ANZIO?

ANSWER (1 Div)

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Forward Coy have small arrows fitted on the front wingward of motor cycles. These can be illuminated when the motor cycle is stationary and the motor cycle (and arrow) are pointed in the direction the traffic is to go.

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QUESTION 33.

Has coloured smoke been used by the Allies in ANZIO?

ANSWER (VI Corps)

No.

QUESTION 34.

What is the counter battery organisation?

ANSWER (VI Corps)

See Annexure "7"

NAVAL BOMBARDMENT1. Ships available.

Naval bombardment is at the present at a minimum. There are two destroyers, either British or American, on permanent patrol off ANZIO. They have not been required for bombardment of ground targets for some time. In fact the last two occasions on which they were fired was at the ships own request. No cruiser support is available except for some very urgent reason or to support some special attack.

2. Control.

When targets are found that require Naval bombardment, the request is passed to N.L.O. by N.E.O. at Corps. The former makes all the necessary arrangements with the ships concerned, either over the air or personally.

3. Targets.

The first two targets given to the destroyers were anti areas on the left of the bridgehead. Although C.B. targets are also engaged, it is considered that the proper target for a ship is an area one.

4. Observation.(a) F.O.O.

When bombardment takes place, Naval F.O.O. parties occupy the most suitable, previously reconed, C.B. and direct the shoot in the normal way over the air.

(b) air O.P.s and "Gubs"

The most effective way of controlling the shoot is from the air, by "gub" or air O.P. by direct speech. Either American or British aircraft are used for this, irrespective of the nationality of the ships firing the shot.

urgent reason or to support some special attack.

2. Control.

When targets are found that require Naval bombardment, the request is passed to N.L.C. by N.B.C. or Corps. The former makes all the necessary arrangements with the ships concerned, either over the air or personally.

3. Targets.

The last two targets given to the destroyers were radi areas on the left of the bridgehead. Although C.I. targets are also engaged, it is considered that the proper target for a ship is an area one.

4. Observation.

(a) P.O.C.

When bombardment takes place, Naval P.O.C. parties occupy the most suitable, previously recon'd, O.P. and direct the shoot in the normal way over the air.

(b) air O.P.s and "Onls"

The most effective way of controlling the shoot is from the air, by "onls" or air O.P. by direct speech. Either American or British aircraft are used for this, irrespective of the nationality of the ships doing the shoot. Procedure is the same for both American and British, and offers no difficulty. Speech over the air is either direct to the ship or relayed by a ground station. C.I. shoots are always directed from the air with the aid of air photographs of a large scale on which the target is clearly marked.

MISCELLANEOUS NOTES

I. VIOLAGES.

1. Protection of Air O.P.s.

Over the beach head there have been no cases so far of Allied air O.P.s being shot down by "flak" or small arms fire, although most of the planes have been hit. This can be attributed partly to good fortune but mostly to the fact that as soon as the enemy dual purpose 88 mm fires high angle it is spotted by the air O.P. and is promptly "stonked". This has effectively discouraged them. Two planes had the misfortune to get in the way of our own shells.

There were, some time ago, two cases, one U.S. and one British, of O.P. planes being shot down by enemy fighters who lurked in the clouds above them and dived out. This has now been made very difficult.

O.P. planes and anti-air guns are at once warned by ILLUM of the approach of enemy planes. On receiving this the O.P. plane makes straight for the nearest concentration of our own anti-air guns. With luck the enemy plane follows the bait and is shot down.

Enemy air O.P.s (Heister Starks?) did make their appearance in the early days of the beach head operation. They were soon shot out of the sky and have not been used since.

2. Bombing.

Bombing is not carried out close in front of our FDLs. The nearest targets engaged are long range guns out of reach of our artillery.

3. Communications and tele.

There is a serious shortage of

the planes have been hit. This can be attributed partly to good fortune but mostly to the fact that as soon as the enemy fuel pumps 60 mm fires high angle it is spotted by the air U.S. and is promptly "stonked". This has effectively discouraged them. Two planes had the misfortune to get in the way of our own shells.

There were, some time ago, two cases, one U.S. and one British, of C.P. planes being shot down by enemy fighters who lurked in the clouds above them and dived out. This has now been made very difficult. C.P. planes and guns are at once warned by Radar of the approach of enemy planes. On receiving this the C.P. plane makes straight for the nearest concentration of our own guns. With such the enemy plane follows the bait and is shot down.

Many air C.P.s (Pleaser Storms?) did make their appearance in the early days of the beach head operation. They were soon shot out of the sky and have not been used since.

2. Bombing.

Bombing is not carried out close in front of our HDIs. The nearest targets engaged are long range guns out of reach of our artillery.

3. Chinampas and tugs.

There is a serious shortage of these.

4. Trench Stores.

It is suggested that in position warfare, frequent reliefs and an portage, parts of Battalion C-1090 should be left in situ and handed over as trench stores. All the 3" mortars and tugs might be included in this category.

NOTE BY D.M.T.

Losses and confusion will result unless a careful system of checking is introduced by the brigade or divisional staff concerned.

On leaving the sector, units should be given back their own equipment. It is thought that the trench store system should operate inside the brigade only.

5. Telephone communications.

The U.S. telephone communications are very elaborate and efficient; their use of cable is much more liberal than ours. In consequence wireless is not used to the same extent as by us.

II. 1 DIVISION.

1. Recco Regiment.

The incorporation of the Recco Corps in the R.M.C. has led to a marked improvement in the training of Recco reinforcements.

2. Infantry Organisation.

(a) Owing to the manpower situation 1 Div have adopted the following organisation:

Three rifle coys.

One cadre coy.

Three sections carriers (four M.S.s)

Four 2 1/2 tons

Full mortar platoon.

(b) The HMG in the infantry battalion is invaluable.

(c) See also Annexure "C" (VI Corps)

3. Reporting Information.

More training is needed in reporting information. The following

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The U.S. telephone communications are very elaborate and efficient; their use of cable is much more liberal than ours. In consequence wirelens is not used to the same extent as by us.

II. 1 DIVISION.

1. Recco Regiment.

The incorporation of the Recco Corps in the R.A.C. has led to a marked improvement in the training of Recco reinforcements.

2. Infantry Organisation.

(a) Owing to the manpower situation 1 Div have adopted the following organisation:

Three rifle coys.

One cadre coy.

Three sections carriers (four M.F.s)

Four 75 mm guns.

Full mortar platoon.

(b) The RAC in the infantry battalion is invaluable.

(c) See also Annexure "C" (VI Corps)

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3. Reporting Information.

More training is needed in reporting information. The following faults occur:-

Important points are not reported.

Obviously incorrect information is passed back without investigation.

Patrols are not fully interrogated.

4. Tactical Exercises.

On occasions tactical exercises should be carried out on unsuitable ground. After an advance troops will often have to halt and fight on ground chosen by the enemy.

5. Defers in ground role.

Successful shoots have been carried out by Defers against Germans in a wadi. The S.F. Defers is especially suited for this role. The best conditions are twilight, poor visibility. The tracer gives away the Defers position at night. The 12 second fuse is effective up to 5,000 yds, 7 second fuse up to 3,500 yds.

6. Infantry Communications.

- (a) The 46 set has proved very successful. It is more reliable at night than the 48 set.

NOTE: It is believed that difficulties in crystal manufacture have limited production of the 46 set.

- (b) The 48 set has proved successful.
- (c) The 56 set has been found to be extremely useful.
- (d) The sound powered telephone is useful, but the lack of a calling device is a serious handicap.

7. Training of Infantry Reinforcements.

- (a) The standard of night training is not satisfactory. It is suggested that battle inoculation should be carried at night with really unpleasant surprises.
- (b) Troops should be trained to continue their duties when suffering from fatigue.

NOTE: This is practised at the I.R.T.D.

8. Divisional H.Q.

The W/T sets have been removed from the 'Q' Ops LCV and remote

6. Infantry Communications.

- (a) The 40 set has proved very successful. It is more reliable at night than the 10 set.

NOTE: It is believed that difficulties in crystal manufacture have limited production of the 40 set.

- (b) The 40 set has proved successful.
- (c) The 30 set has been found to be extremely useful.
- (d) The sound powered telephone is useful, but the lack of a calling device is a serious handicap.

7. Training of Infantry Communications.

- (a) The standard of night training is not satisfactory. It is suggested that battle inoculation should be carried at night with really unpleasant surprises.
- (b) Troops should be trained to continue their duties when suffering from fatigue.

NOTE: This is practised as the I.R.T.D.

8. Divisional H.Q.

The W/T sets have been removed from the 'C' Ops LCV and remote controls have been fitted. This makes more space and less noise in the LCV and works well.

9. A Tk Guns.

- (a) It is thought that Infantry Divisions need a S.P. A Tk gun, particularly for use on first capture of an objective.

(b) Difficulty is still sometimes found in coordination of Artillery and Infantry in the use.

III. 5 DIVISION

1. Experiments.

(a) PIAT used as mortar.

It is felt that this will be an excellent weapon used in this way especially against enemy dug-outs and emplacements, the blast of the explosion being, as it is, downwards.

A PIAT has been issued with a monopod telescopic mounting and a 2" mortar bubble sight. This/considered to be badly designed as the telescopic mounting is not long enough, and when required to be used would in any case have to be dug in or propped up to give it the maximum range.

C.M.A. 5 Division has designed a bipod mounting with adjustable legs, which enables the PIAT to be fired like 3" mortar. Thus mounted and with the bubble sight, trials have shown that it has a mean maximum range of about 420 yds. M.P.I. was never at any time more than 5 yds either side of the central line. Grouping was also good, but it was found that different lots of ammunition varied in their range.

Rapid rate of fire was found to be 10 rounds-35 seconds.

(b) Silencing of 3" and 4.2" mortar.

Experiments are being tried to silence these weapons by attaching to the muzzle a spiral baffie, filled with steel wool. Confidence is expressed that after further experiments this will indeed be achieved.

(c) Catapult for 4.2" mortar bombs.

In an effort to project the 4.2" mortar bomb silently, experiments have been tried with a strong catapult. This has not met with much success at the moment but experiments are continuing.

(d) Remote controlled 2" mortar

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A PLAT has been issued with a monoped telescopic mounting and a 2" mortar bubble sight. ^{As} This/considered to be badly designed as the telescopic mounting is not long enough, and when required to be used would in any case have to be dug in or propped up to give it the maximum range.

O.P.A. 5 Division has designed a bipod mounting with adjustable legs, which enables the PLAT to fire like 3" mortar. This mounted and with the bubble sight, trials have shown that it has a mean maximum range of about 420 yds. M.F.I. was never at any time more than 5 yds either side of the central line. Crawling was also good, but it was found that different lots of ammunition varied in their range.

Maximum rate of fire was found to be 10 rounds-35 seconds.

(b) Silencing of 3" and 4.2" mortar.

Experiments are being tried to silence these weapons by attaching to the muzzle a spiral baffle, filled with steel wool. Confidence is expressed that after further experiments this will indeed be achieved.

(c) Outrigger for 4.2" mortar bombs.

In an effort to project the 4.2" mortar bomb silently, experiments have been tried with a strong outrigger. This has not met with much success at the moment but experiments are continuing.

(d) Remote controlled 2" mortar

In an effort to avoid the unpleasant retaliatory effects that usually accompany the firing of 2" mortars, a 7-barrelled 2" mortar that is fired electrically has been made. The idea is to place these mortars out by night, sighted on some particular area, and fire them all at once or serially as required. They can be controlled by one man in a slit trench into which the loads from the mortars run.

(e) "S" Mine Foot.

Experiments have been carried out to find some method of walking across an "S" minefield with impunity.

Fig (i) Appx "I" shows an appliance tried by U.S. Army which has been successful, the prongs of the "S" mine being absorbed amongst the bristles.

Fig (ii) Appx "II" shows an appliance tried by 5 Division. This has been successful up to a point. It fails if the "S" mine has not been buried deep enough and the roller holding the prongs is sticking out of the ground.

Fig (i) Ground level.  Successful.

Fig (ii) Ground level.  No good.

Whether these appliances will really be effective is doubtful as they will only cope with "pronged" "S" mines, and nearly every German minefield is a mixture of pronged and tripmines with pull and push igniters.

(f) Use of tanks.

5 Division have two squadrons Shermans under command. Their primary role is a counter attack one. They are however used both night and day to give harassing fire under orders of G.R.s.

(g) Defensive use of Bangalore Torpedoes.

Bangalore torpedoes 60-80 ft in length have been used. They are pushed out straight in front of the forward positions. The 30-40 ft nearest the enemy is filled with explosive, the other half is empty. When the enemy assault they are fired from the forward slit trenches and have a devastating effect.

buried deep enough and the dollar holding the prongs is sticking out of the ground.

<u>File (1)</u>	Ground level.	- - - - -	Successful.
<u>File (11)</u>	Ground level	- - - - -	No good.

Whether these appliances will really be effective is doubtful as they will only cope with "prebaked" "G" mines, and nearly every German minefield is a mixture of prebaked and tripmines with pull and push igniters.

(f) Use of tanks.

5 Division have two squadrons Shermans under command. Their primary role is a counter attack one. They are however used both night and day to give harassing fire under orders of C.R....

(g) Defensive use of Bangalore Torpedoes.

Bangalore torpedoes 60-80 ft in length have been used. They are pushed out straight in front of the forward positions. The 30-40 ft nearest the enemy is filled with explosive, the other half is empty. When the enemy assault they are fired from the forward slit trenches and have a devastating effect.

(h) 2" Mortars Fired as a battery

One battalion has a battery of eleven 2" mortars. This battery is moved frequently. It fires from 4-500 rounds per day and has been most successful. There has been little retaliation.

(1) Lighting Set.

It is felt that a Brigade M.C. should have a lighting set, to provide adequate lighting for command post - signal office, etc.

(2) Long Barrelled 6-in. 175 mm.

52nd Tr. Regiment have only 2 long barrelled guns. About 25% of the infantry 6-in. are long barrelled.

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ANNEXURE "D"1 DIVISION.REPORT OF GERMAN USE OF FLAME THROWERS IN ITALY(Ref War ITALY 1/25,300 Shoot 150/IV(U.E.))

The circumstances in which the Flame Thrower was used are as follows:-

The enemy attacked to area BANTONI 851304 just before light 26 Feb 44. The buildings at 851302 were, at that time, in the hands of approx 20 enemy. Some BRITISH troops were in position SOUTH of the buildings in area 051304. The two vehicles approached from a N.W. direction after the buildings were in enemy hands and assisted in mopping up a few remaining BRITISH troops.

The observer was approx 500 yds to the SOUTH of the British troops.

EQUIPMENT.QUESTION 1.

On what type of tank were flame throwers mounted?

ANSWER 1.

Half track van uncovered similar to Bren carrier.

QUESTION 2.

How many flame projectors were fitted to each tank?

ANSWER 2.

One.

QUESTION 3.

What was their

- (a) range?
- (b) duration of fire?
- (c) fuel capacity?
- (d) method of operation?

ANSWER 3.

- (a) 30 - 50 yds.
- (b) 1 - 2 secs.
- (c) NO idea.
- (d) Directed from vch towards ground immediately in front

020

20 Feb 44. The buildings at 851302 were, at that time, in the hands of approx 20 enemy. Some BRITISH troops were in position SOUTH of the buildings in area 851304. The two vehicles approached from A.N.W. direction after the buildings were in enemy hands and assisted in moving up a few remaining BRITISH troops.

The observer was approx 500 yds to the SOUTH of the British troops.

EQUIPMENT.

QUESTION 1.

On what type of tank were flame throwers mounted?

ANSWER 1.

Half track veh uncovered similar to M3A1 carrier.

QUESTION 2.

How many flame projectors were fitted to each tank?

ANSWER 2.

One.

QUESTION 3.

What was their

- (a) range?
- (b) duration of fire?
- (c) fuel capacity?
- (d) method of operation?

020

ANSWER 3.

- (a) 30 - 50 yds.
- (b) 1 - 2 secs.
- (c) NO fuel.
- (d) Directed from vehs towards ground immediately in front of veh, believed at slit trenches. (observer was 500 yds away)

QUESTION 4.

Was the fuel carried internally or externally or in a trailer?

ANSWER 4.

NO containers could be seen externally. There was NO trailer. It is assumed fuel was carried internally.

REFERENCE "D" Continued

QUESTION 5.

- (a) What type of fuel was used?
- (b) (a) Was it heavy fuel oil or specially thickened fuel?
- (b) Was a large volume of smoke given off?
- (c) Was the fuel ejected in a thin stream?
- (d) Did the droplets continue to burn on the ground?

ANSWER 5.

- (a) Fuel used NOT known.
- (b) There did NOT appear to be any smoke given off.
- (c) Fuel was ejected in similar manner to British plane rockets. It started in a thin jet approx 10 ft above ground then appeared to shoot along ground level. The jet flared out and then went out.
- (d) The flame did NOT appear to burn on ground level. Whole flame went out in very short time.

REMARKS

QUESTION 6.

On what scale were they used? Were they concentrated to one point or distributed over a wide front?

ANSWER 6.

One veh only was used and ejected only one jet. There was however, another similar half-track with projector, but this veh did NOT eject any flames. Both vehs operated close together. It will be seen that there was NO necessity for the second veh to project any flame as one veh appeared sufficient to complete the task.

QUESTION 7.

Were they used with the object of destroying personnel or material?

ANSWER 7.

They were used with the object of destroying or intimidating personnel in the mopping up stage of a GI attack.

QUESTION 8.

619

- (b) There did NOT appear to be any smoke given off.
- (c) Fuel was ejected in similar manner to Russian plane engines. It started in a thin jet approx 10-15 ft above ground level. It went out and then went out.

(4) The plane did NOT appear to burn on ground level. Whole plane went out in very short time.

DLONIC-1

QUESTION 6.

On what scale were they used? Were they concentrated to one point or distributed over a wide front?

ANSWER 6.

One veh only was used and ejected only one jet. There was however, another similar fair-track with projector, but this veh did NOT eject any flames. Both vehs operated close together. It will be seen that there was NO necessity for the second veh to project any flame as one veh appeared sufficient to complete the task.

QUESTION 7.

Were they used with the object of destroying personnel or material?

ANSWER 7.

They were used with the object of destroying or intimidating personnel in the mopping up stage of a raid attack.

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QUESTION 8.

On what type of target were the attacks concentrated? (e.g. personnel in slit trenches, dugouts, pillboxes)

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ANNEXURE "I" Continued

ANSWER 8.

Target appeared to be personnel in slit trenches. As a result of the flame which was projected, five or six soldiers were seen to leave the trenches with their arms up.

QUESTION 9.

Were they used at short range, medium range or out of range?

ANSWER 9.

Was appeared to be 30 - 50 yds from men who were presumably target.

QUESTION 10.

Did the flame throwers attack by day or by night?

ANSWER 10.

Flame throwers were used just as it was getting light in the morning. It was possible to observe and count roughly the men who were approx 500 yds from the observer.

QUESTION 11.

Were they ever used in defence?

ANSWER 11.

Does NOT apply in this report.

QUESTION 12.

Did their use have any anti-morale effect on our own troops? How did they react to flames?

ANSWER 12.

Yes, it caused them to surrender.

QUESTION 13.

How many :-

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QUESTION 10.

Did the flame throwers attack by day or by night?

ANSWER 10.

Flame throwers were used just as it was getting light in the morning. It was possible to observe and count roughly the men who were approx 500 yds from the observer.

QUESTION 11.

Were they ever used in defense?

ANSWER 11.

Does NOT apply in this report.

QUESTION 12.

Did their use have any anti-morale effect on our own troops?
How did they react to flames?

ANSWER 12.

Yes, it caused them to surrender.

QUESTION 13.

How many :-

- (a) Fatal
 - (b) Serious
 - (c) Temporary
- casualties were sustained?

ANSWER 13.

Casualties were NOT observed at all, and it is NOT certain that the flames did strike the ground in the exact area of the troops.

QUESTION 14.

Was the flame thrower attack considered a success for the enemy?

ANSWER 14.

Yes.

QUESTION 15.

What percentage of flame throwers were destroyed?

ANSWER 15.

None.

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APPENDIX "C"

9 Apr 44.

HEADQUARTERS VI CORPS
APO 363.Notes on the Reinforcement Problem.Inf Bn

1. In view of the manpower problem Comd 5 Div is prepared to operate in the present situation with three rifle coys.
2. The strength of the rifle coys is governed by the fact that the inf sec must never be less than 4 HQs and 5 men. This shows a saving of 27 men in the rifle coy, but extra men must be provided to man the PLAT, since the rifle sec cannot further be reduced to provide these men.
Net Saving 24 men in the rifle coy.
3. In order to keep three rifle coys at the above strength, a fourth training coy of 50 men is required. This gives a further saving of 72 men from the A.B.
4. In HQ and HQ Coy cannot be reduced.
5. Only four A Tk gun acts are required. A saving of 13 men can be made in this pl. No other saving in the Support Coy can be made.

Officers

The following officers can be dispensed with:

	<u>Saving</u>	<u>Remarks</u>
Carrier pl	1	Subaltern not essential
A Tk pl	1	With four guns only one officer necessary.
Troop Coy	3	Two officers with assistance from IOLs can add and train this coy.

7.

Five officers per rifle coy are essential in order to provide an absolute minimum of three with the coy in the line, leave, courses, sickness and IOLs.

8. Minimum Establishment for an Inf Bn.

	<u>Officers</u>	<u>ORs</u>	<u>Officers</u>	<u>ORs</u>
WE II/253/2				
Loss:			35	CIC
In three coys	1			
In fourth coy	3			
A Tk pl	1			
Carrier pl	1			
			5	100

616

must never be less than 1 WO and 6 men. This shows a saving of 27 men in the rifle coy, but extra men must be provided to man the PLAT, since the rifle sec cannot further be reduced to provide these men.
Net Saving 24 men in the rifle coy.

3. In order to keep three rifle coys at the above strength, a fourth training coy of 50 men is required. This gives a further saving of 72 men from the A.B.

4. In HQ and HQ Coy cannot be reduced.

5. Only four A Tk gun deta are required. A saving of 13 men can be made in this pl. No other saving in the Support Coy can be made.

6. Officers

The following officers can be dispensed with:

	<u>Savings</u>	<u>Remarks</u>
Carrier pl A Tk pl	1 1	Subaltern not essential with four guns only one offr necessary.
Reg Coy	3	Two offrs with assistance from LOs can man and train this coy.

7. Five officers per rifle coy are essential in order to provide an absolute minimum of three with the coy in the line, leave, courses, sickness and LOs. **616**

8. Minimum Establishment for an Inf Bn

	<u>Officers</u>	<u>ORs</u>	<u>Officers</u>	<u>ORs</u>
WE II/233/2 less: in three coys in fourth coy A Tk pl Carrier pl	- 3 1 1	- 63 72 13	35	640
Establishment			5 30	140 632

9. Six further ORs (Pipers) will be necessary in Scottish or Irish Bns.

10. The above establishment represents the absolute minimum that must be kept in the field, and makes no allowance for the many factors that drain a unit's strength.

The following losses to a unit's fighting strength cannot be avoided, and must be allowed for:

APPENDIX 10

(a) Sick. On an average of 4 men admitted to medical installation each day as non-battle casualties. Of these 40% return at an average period of 5 days. This gives a permanent non-effective figure of 16.

The remaining 40% (1.6 per man) are evacuated. (see para 11). These figures are bound to increase with the advent of malaria.

(c) Courses. In order to retain efficiency while the div is constantly in the line, Cond 5 Div seems it essential to maintain a battle school. This and other courses accounts for 15 men.

The 5 Div Battle School is not in the bridghead.

(c) Leave. 25 men away from each bn at any one time.

(d) Extra-regimentally employed. On an average each unit has about 10 men attached to the Div HQ, or to some improvised unit, such as Div Holding Unit. It should be noted that this figure does not have a def pl.

11. On an average each bn has 5.7 (1.6 sick 2.4 battle casualties) men either evacuated from the headhead or killed or missing each day. This gives a weekly wastage of 26 men, and since this wastage cannot be replaced within seven days of the casualty, it is strongly recommended that this number be provided for initially, and entered for afterwards.

12. In order to keep a bn at a fighting strength of 102, the following "posted strength" must therefore be authorized.

Fighting strength (para 6)	662
Sick (non-effective (para 10 (a)))	15
Evacuated from headhead (para 11)	25
Courses (para 10 (b))	15
Leave (para 10 (c))	25
Extra-regimentally employed (para 10 (d))	10
	753

13. This takes into no account the following:-

Men in arrest and escorts (the average 15). Rear party overheads.

14. Under the above arguments the following infantry rfts will be required in the ANZIO headhead:

	Officers	Dis
1 Div	5	1656
5 Div	7	981
	12	2637

Figures are as for 1 April

813

The above does not make any allowances for the two MG bns and the support units (4.2" mortar).

15. In order that all rfts can be absorbed into units by 1 May it is strongly urged that they be sent fwd without delay. They will not be sent immediately into the line, but will receive 7-10 days try with their future units.

16. It should be noted that in order to find men Cond 5 Div has been forced to put his Div HQ Def pl into the line and...

11. On an average each bn has 2.7 (1.6 sick 2.1 battle casualties) men either evacuated from the beachhead or killed or missing each day. This gives a weekly waste of 26 men, and since this waste cannot be replaced within seven days of the casualty, it is strongly recommended that this number be provided for initially, and entered for afterwards.

12. In order to keep a bn at a fighting strength of 102, the following "posted strength" must therefore be authorized.

Fighting Strength (para 6)	662
Sick (non-effective (para 10 (a)))	15
Evacuated from beachhead (para 11)	26
Casualties (para 10 (b))	15
Leaves (para 10 (c))	25
Extra-requisitely employed (para 10 (d))	13
	753

13. This takes into no account the following:-

Men in arrest and escorts (hrs average 15). Near party overhauls.

14. Under the above arguments the following infantry regts will be required in the ANZIC beachhead:

1 Div	012
5 Div	1631
	984
	2021

Figures are as for 1 April

The above does not take any allowances for the two MC bns and the support units (4.2" mortar).

15. In order that all regts can be absorbed into units by 1 May it is strongly urged that they be sent fwd without delay. They will not be sent immediately into the line, but will receive 7-10 days rest in their support units.

16. It should be noted that in order to find men Comd 5 Div has been forced to put his Div Hq Def Pl into the line, and a HRE pl is in the process of being formed.

R. US 6 COMES

R.D.M.

ANNEXURE "D"ANZIO COUNTER BATTAL ORGANIZATIONC.C.B.G. (US)EAST SECTOR (US)

CBO

ACBO

ACBO

ACBO

P S Base

S R Base

Own Corps Arty

Own line and wireless communications

WEST SECTOR (Br)

CBO

ACBO

ACBO

ACBO

eight
hour
shift

P S Base

S R Base

Own Corps Arty

Own line and wireless communication

EAST SECTOR (US)

CIC

ACIO

ACIO

ACIO

P S Base

S R Base

Own Corps arty

Own Line and Wireless communications

WEST SECTOR (UK)

CIC

ACIO

ACIO

ACIO

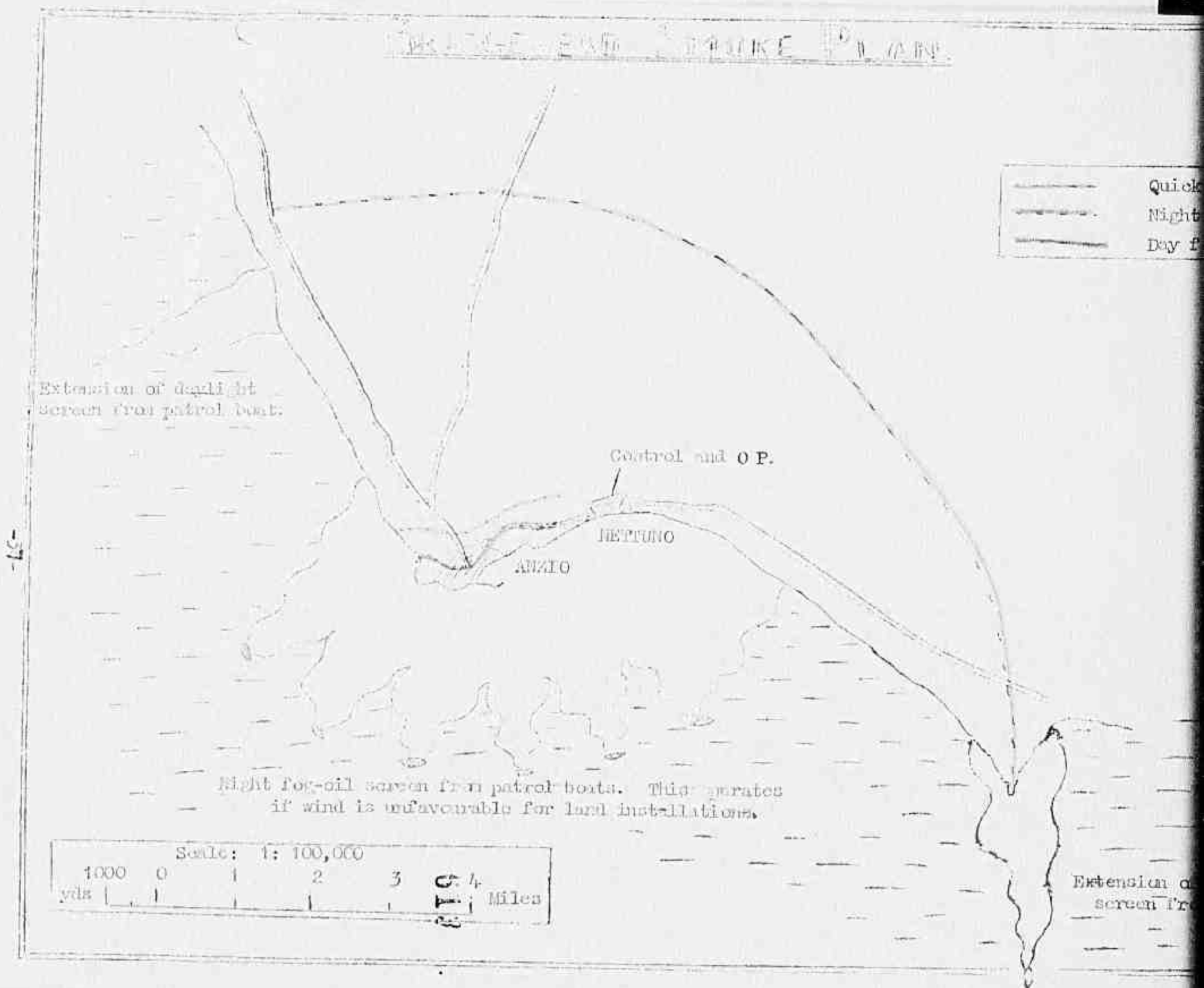
P S Base

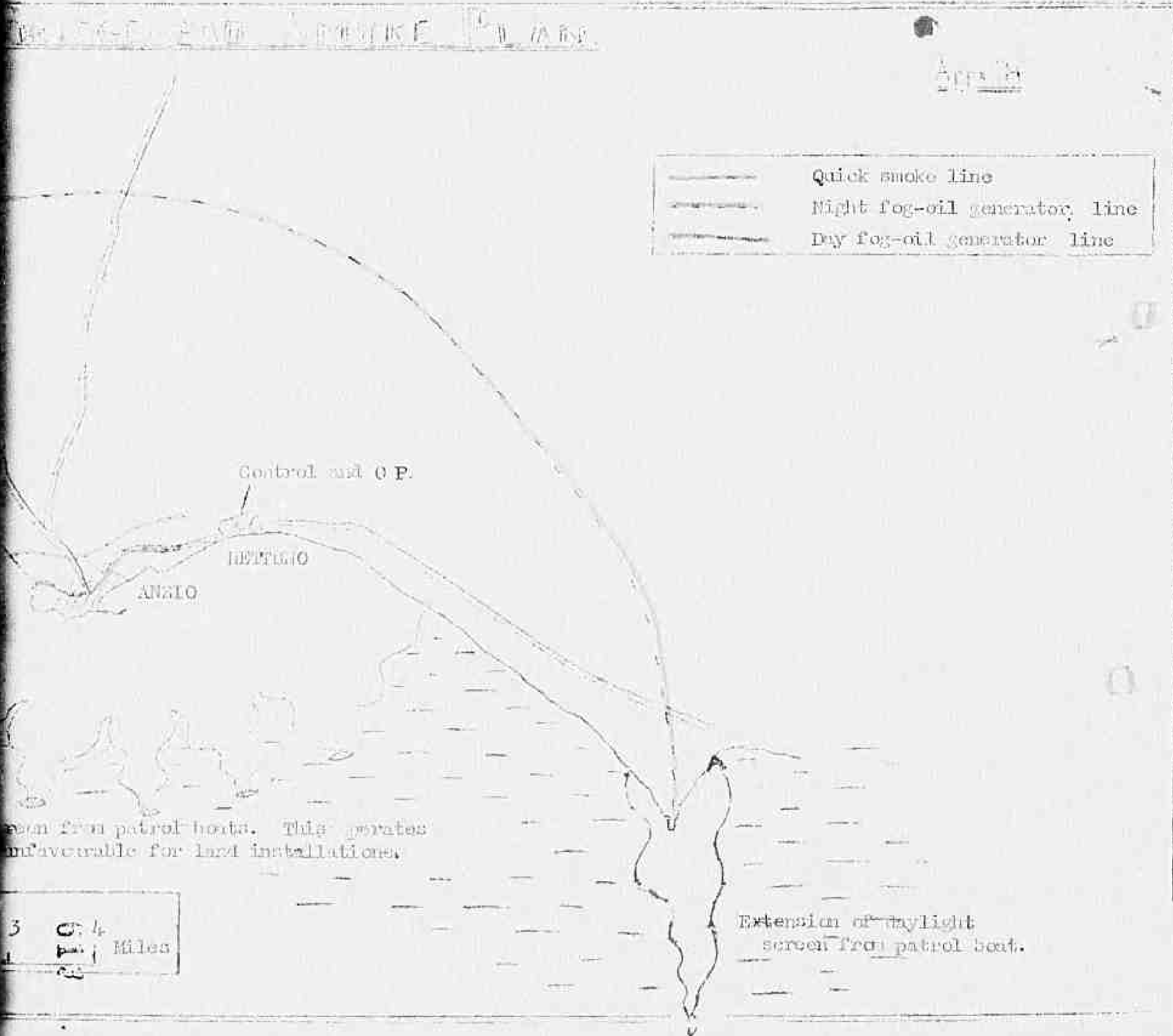
S R Base

Own Corps arty

Own Line and Wireless communication

014



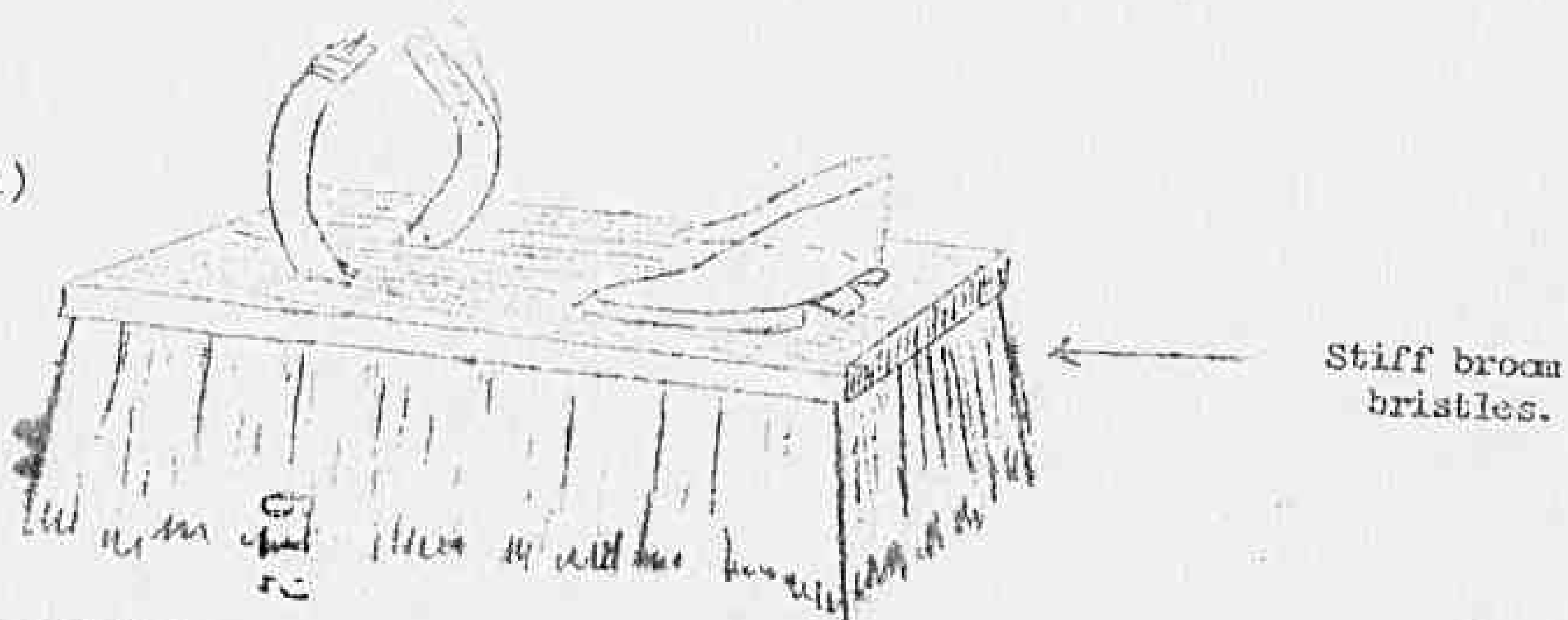


3 MINE BOOT

Fig (I)

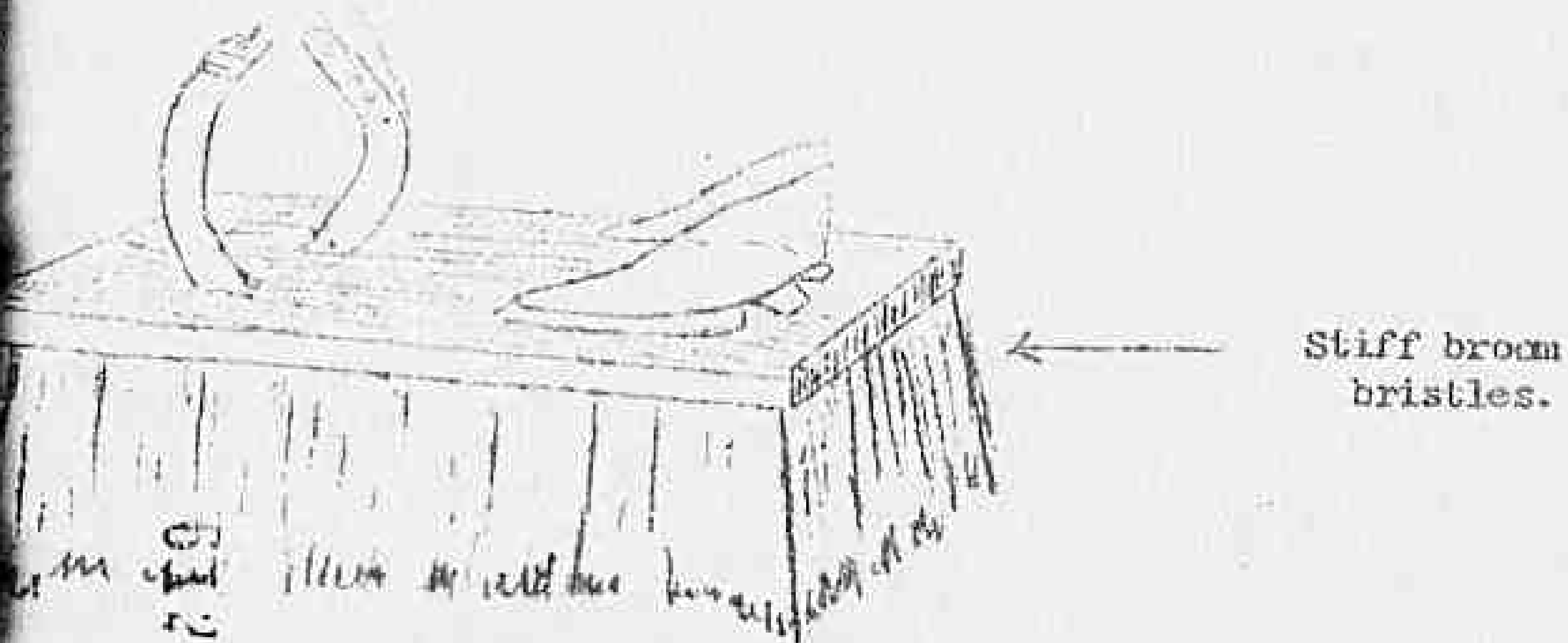
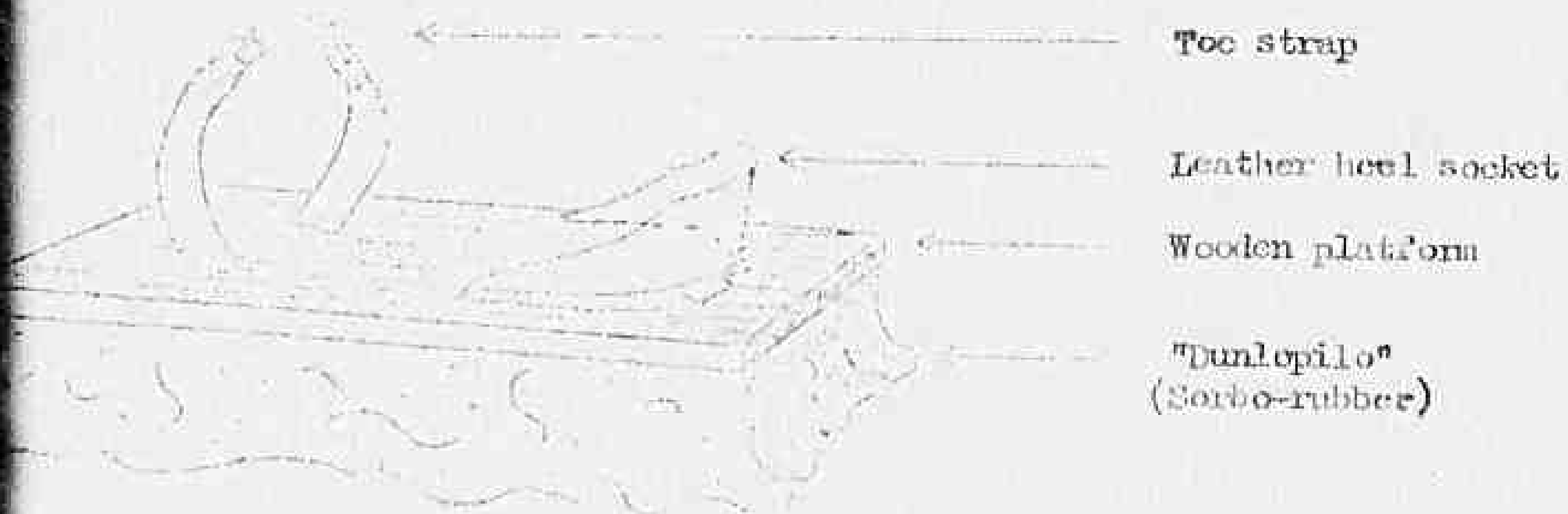


Fig (II)



3 MINE BOOT

Op. 3



SECRET
RM/49/NT1.

NOTES FROM 5 DIVISION

The following notes were obtained by an obs. ver who visited 5 Div on 14 Jun 44. They were compiled as a result of conversations with G.I., three Bn Comds, 2 I.C. Div Recon Regt, 3.C. Div Sigs, and two Bn Comds.

1. General.

After the static period at ANZIO, 5 Div moved up to the R TIER in pursuit of the enemy who offered little opposition other than small rearguards. Demolitions and mines were extensively used by the enemy.

The advance was along two roads.

Left Road.

Sqn Recon Regt
Det R.L. under comd, followed up by a Regt Cp of:-
Inf Bn
Bty Ed Regt
Tp A Tk (47 prs) } under
Det Sigs } comd
RA Coy } in sp.
300 prs }

Right Road.

Sqn Recon Regt, Det R.E. under comd followed up by
a Bn Cp of:-
Inf Bn
RA Regt
Tp A Tk (47 prs) } under
Bty Med Regt } comd
Sqn Tks (Sherman) }

The advance was a set piece show, practically no opposition, but very slow due to mines and demolitions.

2. A Tk Gun

No comments. All are agreed that inf A Tk guns should remain on a wheeled basis. RA A Tk guns to be S.P. if possible. You cannot dig in an S.P. gun, and it is awkward in difficult country, but perfect for mobile war. S.P. A Tk guns must NOT be used as tks.

3. Artillery

No comments. Co-mandant...

rearwards. Demolitions and mines were extensively used by the enemy.

The advance was along two roads.

Left Road.

San Roccos Regt
Det R.E. under comd, followed up by a Rest Co of:-
Inf Bn
Lty Co Regt
Tp A Bn (17 pps)
Det Sigs
M Coy } in SR.
M Coy }
M Coy }
M Coy }

Right Road.

San Roccos Regt. Det R.E. under comd followed up by
a Bde Co of :-
Inf Bn
M Regt
Tp A Bn (17 pps)
Zty Med Regt
San Tls (Sherman)
M Coy } in SR.
M Coy }
M Coy }
M Coy }

The advance was a set piece show, practically no opposition, but very slow due to mines and demolitions.

2. A Tk Gun

No comments. All are agreed that inf A Tk guns should remain on a wheeled basis. RA A Tk guns to be S.P. if possible. You cannot dig in an S.P. gun, and it is awkward in difficult country, but perfect for mobile war. S.P. A Tk guns must NOT be used as this.

3. Arty

No comments. Co-operation and working party is now first class in all respects.

4. PLAT

Generally approved. Good for house and pill box actions, and useful against the if you ever got there, but usually the are knocked out before getting close enough. One or two were destroyed by 5 Div with PLATs at CAPIGLIANO, but none since.

The problem of the carriage arises. There is no adequate shipment for them, and men of a pl cannot carry them. Therefore extra bodies are made available from fourth day in km. PLANS have been used as mortars by cooking them up on a special stand. Range 550 to 700 yds. The result is a big bang, and considerable moral effect. Casualties are caused from blast, and the Germans do not like it. They cannot hear it being fired, and it descends at a steep angle in their unexpected midst.

5. Snipers.

The div is very enthusiastic, and their snipers are achieving good results. Some bn could not have a supporting pl of 3 men under a sqt. The snipers then work as a pl on the bn level.

6. Recco Regt.

3 Div Recco Regt was very in a static role at km. In the break out the div moved on two pls, one on each side. There was little opposition except for demolitions and snipers. The div had a lot of RE under command (1 officer and 4 CPTs in a motor scout car with 2 tanks demolitions etc). Bulldozer was being needed and was available. German guns were inclined to commit the whole sqt on a route before officers and patrols came in. This resulted in confusion caused by having to turn round and use another route. Progress was very slow. One to one meeting opposition in meeting was too tumbled and got into trouble, officers having grenades lobbed into them from the sides of the cutting. If they had been further behind they could have deployed in time, and by walking on each side of the cutting dealt with the enemy. This they subsequently did, but not until after considerable delay and casualties. Luckily the enemy had no AT guns. S.P. guns, i.e. 75 mm mounted on anti tank vehicles Scout cars are badly needed, as in anti car regt. T.O.C. was there, but the guns were out of range.

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5. Snipers.

The div is very enthusiastic, and their snipers are achieving good results. Some 30 snipers are in the 4 companies of 8 men each.

The snipers then work as a unit on the 1st platoon.

6. Recon. Regt.

5 Div Recon Regt. has 100 men in 4 companies of 25 men. In the break out the div moved on two sides, the 1st and 2nd. There was little opposition except for snipers and mines. The 1st had a lot of R3 under cover (1 of 4) in a trench and the 2nd had 2 sections demolitions etc). Bulldozer was being needed and is available. Recon Regt were inclined to commit the whole of one route to the 1st platoon. This resulted in confusion caused by having to turn round and use another route. Progress was very slow. One of the snipers used grenades in attacking the 1st platoon and got into trouble, others having grenades lobbed into them from the sides of the trench. If they had been further behind they could have deployed in time, and by walking on each side of the cutting dealt with the enemy. This they subsequently did, but not until after 0100. Considerable delay and casualties. Luckily the enemy had 10.4 mm guns. S.E. guns, i.e. 75 mm mounted on a truck which shot over our heads, badly needed, as in area our right. B.O.C. was there, but the 1st platoon was out of range. Carriers are a bad necessity (as a rule). Good cars are very satisfactory as such. There is a middle section being too many sets. 10, 11, and 9 sets are all on the same lot. The high ground 19 set is very good and adequate for all needs.

Organization of Regt Reconnaissance

This could be greatly improved by simplification. U.S. too many specialists, too many types of men, too many weapons and NOT enough bodies on the ground.

Suggestions: Pattern and cars as type of four similar to arm car regt support then with a scout, recon and carrier personnel and some of the A.P. personnel would be wanted in anti personnel carriers. Only White Scout cars are available at present, but these do NOT really hold enough bodies. S.P. 75 are most important. The present organization could be improved as suggested above. No one put like the idea of the in recon regt

Conclusions by 2 I.S. Recon Regt. The present organization could be improved as suggested above. No one put like the idea of the in recon regt because of complicated maintenance and logistics, and considers that recon and NOT fighting is the correct role, but only one since the landing in SICILY has a present and adv. in contact with the place. Principle - problem is getting higher corps to understand recon and what it means.

7. The Consolidation

One report of the 1st Army was brought very much into evidence, and that was the very detailed and careful planning needed for getting the sp weapons fired on to the objective for example, etc. This was especially so at ANZIO because the country, intersected by deep valleys, left usually only one route fwd in the first instance.

The following is the outline of a system which worked well in one bn.

The necessary recon and planning must all be done well before the operation begins. A full reconnaissance area for the collection of all such vehicles as are needed fwd must be recon'd, marked and known by all. This must have an officer to control it. The sp coy could be used in this case. He must be liberally supplied with ammo (including) to Tac Bn HQ, the start line, or 500 yds. bottle neck there may be on the route fwd, e.g. minefield or defile. He must also have some to sp formations supplying ammo or the move fwd. There must also have some to sp formations who are keeping it open,

be improved as suggested above. He didn't like the idea of the in road road because of complicated arrangements and the etc, and considers that road and NOT fighting is the correct idea, but only now since the landing in SICILY has a result and only a matter of time. Principally, problem is getting higher combs to understand road and what is more.

7. The Consultation.

One aspect of the consultation is to get much into evidence, and that was the very detailed and careful the air power for getting the sp weapons paid on to the objectives for ground plan. This was especially so at ANZIO because the country, interpreted by their radios, left usually only one route for in the first instance.

The following is the outline of a system, which worked well in one bn.

The necessary process and plan must all be done well before the operation begins. A plan for the area for the collection of all such vehicles as are needed must be made, marked and known by all. This must have an officer to control it. On any day was used in this case. He must be liberally supplied with gas (or other) to car in HQ, the start line, or ⁶⁴¹ He must be able to see any car on the route, e.g. in field or defile. There must also have some to be formation on the route or the move. There must also be an officer at the defile controlling the supply party who are keeping it open, and the Dec Sec for removal of supplies. He must have access to the HQ, and to the unloading area, and he will control the traffic over the defile. The 2 I.O. is the on control of any suitable people for this job.

It is essential that the defile is clear of observed enemy fire before the crossing is begun. Therefore if there is only one possible crossing place, it will dictate to a large extent where your attack is going to be launched, because unless you get supporting arms and quickly on to the capture objective, consolidation will not take place, and the inevitable counter-attack will succeed in its object. The detailed recon, planning, marking and clearing of routes, order of priority of weapons and comms must all be worked out in great detail beforehand, and good drills practised because in any case there will be some confusion, and unless there is "order" in it, a complete breakdown will result.

3. Weapon Training.

All are agreed on the vital importance of trying to use their weapons before they go as reinforcements to a formation. The standard at home is 12" GP and one rifle. The obvious result is that a man is NOT so keen to improve his tactics if he knows when he gets near the enemy he cannot use his weapons.

If on the other hand, a man is a good shot he will be dead keen to get into positions where he can do his best, and so automatically his minor tactics will improve.

However good your tactics may be it is no good if you cannot kill the enemy when you get there. The psychological factor comes in here very strongly.

It seems to be generally agreed that NCOs would far prefer their reinforcements to be good with their weapons. Specialists can be, and always ⁶⁰ are trained and selected from men already within the bn. Courses are of course of great value in this respect.

be worked out in great detail, however, and unless there is "order" in it, in any case there will be some confusion, and unless there is "order" in it, a complete breakdown will result.

2. Weapon Training.

All are agreed on the vital importance of training to use their weapons before they go as reinforcements to a front line. The standard at home is 12" GP and one rifle. The obvious result is that a man is NOT so keen to improve his tactics if he knows when he gets near the enemy he cannot use his weapons.

If on the other hand, a man is a good shot he will be dead keen to get into positions where he can do his maximum damage, and so automatically his minor tactics will improve.

However good your tactics may be it is no good if you cannot kill the enemy when you get there. The psychological factor comes in here very strongly.

It seems to be generally agreed that if a man would for proper their reinforcements to be good with their weapons. Specialists can be, and always **608** are trained and selected from men already who in the line. Courses are of course of great value in this respect.

APPX "A" 80 ENT/49/4TH
dated 3 Jun 44.

STREET FIGHTING - Clearing of CHIONA - 2nd CAVALRY Brigade.

Para 2.

"The open area between the harbour and the town was heavily mined with a T4 and a Pers mines".

Comment by PLYM Army.

It is unfortunate that the report gave such a short account of the mine situation. Without some information about types of mine found, the places they were laid (soft ground or roadways) and the methods used in combating the obstacle, the value of the statement for training purposes is limited. It is significant, however, that a complete belt of mines was laid around the centre of the town (see map Appx "A") and that the defensive minefields were not confined to the outskirts of the town or to the beaches. This must have considerably limited the movement of enemy troops, having limited himself many routes through the town. It would have been interesting to know whether each of the strong points in the Northern Sector of the town (para 2) were individually defended by minefields.

Para 4.

"With 400. Factory still held by the enemy from upper floors. Our sappers entered the basement of the factory, placed their charges and blew the building".

Comment by PLYM Army.

This seems a suitable method of clearing a building, if it is not possible to bring up tanks to fire direct at the wall face. The time taken to carry enough explosive and demolition equipment into the basement and arrange the charges, must have been considerable. It is felt that in the majority of cases a projectile would render the building uninhabitable in less time than would a demolition party.

Comment by G.P. HQ AMI.

It is considered that a few well placed concussion charges would be much more effective in demolishing a building than a large number of 507 rounds from tanks. The weight of explosive and time taken to place would not be prohibitive. Furthermore it is understood that, unless special arrangements are made, the percentage of HB ammunition carried in a tank is very limited.

It is unfortunate that the report gave such a short account of the mine situation. Without some information about types of mine found, the places they were laid (soft ground or roadways) and the methods used in camouflaging the obstacles, the value of the statement for training purposes is limited. It is significant, however, that a complete belt of mines was laid through the center of the town (see map Annex "A") and that the defensive minefields were not confined to the outskirts of the town or to the barracks. This must have considerably limited the movement of enemy troops, having denied himself many routes through the town. It would have been interesting to know whether each of the strong points in the Northern Sector of the town (para 2) were individually defended by minefields.

Para 4.

"Fifth Day. Factory still held by the enemy from upper floors. Our sappers entered the basement of the factory, placed their charges and blew the building".

Comment by Fifth Army.

This seems a suitable method of clearing a building, if it is not possible to bring up tanks to fire direct at the wall face. The time taken to carry enough explosive and demolition equipment into the basement and arrange the charges, must have been considerable. It is felt that in the majority of cases a projectile would render the building uninhabitable in less time than would a demolition party.

Comment by C.V. HQ ABF.

It is considered that a few well placed concussion charges would be much more effective in demolishing a building than a large number of rounds from tanks. The weight of explosive and time taken to place would not be prohibitive. Furthermore it is understood that, unless special arrangements are made, the percentage of HE ammunition carried in a tank is very limited.

Para 5 (iii)

"Planning. Sappers and Pioneers should accompany the infantry to deal with booby traps and carry out demolitions".

Comment by FIFTH ARMY.

Although it is essential that RE should accompany the infantry throughout the operation, it is equally important that these detachments are continually in touch with their Coy Commanders and hence with the ORG. For this reason, it is more convenient for coys not to be under command brigades.

Para 5 (vi).

"House clearing. Houses should be cleared from top storey downwards. The top storey should be cleared, room by room, by using "beehives", i.e. a small charge which is placed on the partition wall, as a means of entry to each room".

Comment by FIFTH ARMY.

The use of beehives cannot surely be for demolishing partition walls, as the hole made in the wall would only be about 1 ft diameter (maximum). The standard explosive would break down the wall more efficiently than beehives, unless the wall is of very great thickness. The beehive could be more effectively used for clearing the enemy from the adjacent room; the blast effect would be sufficient to cause many casualties.

Comment by G.M. HQ 1st.

Details of the part played by the beehives in breaching the walls are unknown but it is considered that, as they are prepared portable charges, easily fixed in position, and capable of penetrating thick walls, they would be useful in this type of fighting.

downwards. The top storey should be cleared, room by room, by means of "beehives", i.e. a small charge which is placed on the partition wall, as a means of entry to each room.

Comment by F. J. H. H. H.

The use of beehives cannot surely be for demolishing partition walls, as the hole made in the wall would only be about 1 ft diameter (maximum). The standard explosive would break down the wall more efficiently than beehives, unless the wall is of very great thickness. The beehive could be more effectively used for clearing the entry from the adjacent room; the blast effect would be sufficient to cause many casualties.

Comment by C. M. H. H. H.

Details of the part played by the beehives in breaching the walls are unknown but it is considered that, as they are prepared portable charges, easily fixed in position, and capable of penetrating thick walls, they would be useful in this type of fighting.

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SCORPIONS FROM FIGHTING IN ORTONA.

ANSWER No.3. (extract)

"Our tanks found great difficulty in operating within the town as roads and numerous rubble piles were liberally sprinkled with mines and booby traps. Many of the houses which were occupied had already been booby trapped or had bombs placed in them".

Comment by FIFTH ARMY.

It would be interesting to know whether scorpions or other mechanical devices were used to detonate mines in the roads and debris. It would have been difficult to use the mine detector, as debris usually contains much metal, and providing for mines would have been almost impossible amongst rubble. Provided all arms are instructed in types of booby traps in use by the enemy, and the way to neutralise them, the booby trap will not cause the casualties, or have the demoralizing effect it has had in the past.

Comment by C.E. HQ ILL.

Scorpions would be unsuitable in streets partially blocked by rubble and large pieces of masonry.

Comment by FIFTH ANN.

It would be interesting to know whether scorings or other mechanical devices were used to detonate mines in the roads and debris. It would have been difficult to use the mine detector, as debris usually contains much metal, and providing for mines would have been almost impossible amongst rubble. Provided all arms are instructed in bytes of booby traps in use by the enemy, and the way to neutralise them, the booby trap will not cause the casualties, or have the demoralizing effect it has had in the past.

Comment by C.B. HQ.

Scorings would be unsuitable in streets partially blocked by rubble and large pieces of masonry.

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SECRET

26 Oct 44.

ATTACK ON HONKONG MONASTERY IN 2 P.M.S.I.I. (8 Aug 44)

Ref O.S. Sheets IMR 1: 25,000 100 M N.E. and S.E., and attached diagrams.

NOTE: For convenience, the map references of all places and features mentioned in this narrative are listed below, alphabetically for place names, and in numerical sequence for spot heights.

PLACES OR FEATURES.A.R.

DETOLSTA	866645
HONKONG	869659
LA REPA	885655
N PING	878644
TIKZANG	8865
VILLIAGUA	8966
Pt 372	886653
Pt 416	896659
Pt 423	891654
Pt 437 (WEST)	874665
Pt 437 (EAST)	913665
Pt 443	912647
Pt 470	882659
Pt 476	892644
Pt 490	878644
Pt 497	905674
Pt 503	896644

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numerical sequence for spot heights.

PLACE ON MAPS.

EMOCHIA

MOCHINGO

LA RIPA

M. PIZZI

MEZANO

VALLA AENA

Pt 372

Pt 416

Pt 423

Pt 437 (WEST)

Pt 437 (EAST)

Pt 443

Pt 470

Pt 473

Pt 490

Pt 497

Pt 506

Pt 557

- 1 -

604

Spot

806625

889659

885655

878644

8865

8966

88653

89659

89654

874655

913665

912647

882659

892644

878644

905674

896644

889659

1. Dispositions.

On 5 Aug 44, the enemy was holding in considerable strength a bridgehead SOUTH of the R.ATHO, extending along the high ground pt 437 (WEST) - pt 470 - 557 (INCONTRON MONASTERY) - pt 416 - pt 437 - pt 497.

At that time, 10 Inf Bde was positioned in rear of 12 Inf Bde, through which it was preparing to pass with the object of establishing a bridgehead NORTH on the R.ATHO, immediately to the EAST of FLORENCE.

20 Inf Bde was holding pt 490 (A FILL) - pt 508, and 4 Recce Bgt, in a protective role on the RIGHT flank of the div, was holding pt 445 and thence EASTWARDS to the R.ATHO.

2. Preliminary Action and Planning.

It was clear that the key to the enemy position was the INCONTRON MONASTERY feature, which overlooked the remainder. On the night 4/5 Aug, 2 Son L.I. (20 Bde) had sent a fighting patrol on to its WESTERN slope, where five P.W. from the III Bn 104 P.G.R. were taken. It was then apparent that the feature was held by 300+ troops. On the night 5/6 Aug 2 Son L.I. tried to occupy the feature with two coys attacking from the S.E., but this approach proved to be a gradual slope completely camouflaged by the enemy, and the attack failed.

It was now decided that 2 Kings (26 Bde) should make a further attempt to capture the feature with two fighting patrols on the night 6/7 Aug. If this attack succeeded, 2 D.O.L.I. (10 Bde) would come under command. 26 Bde, pass through 2 Kings, and seize the 497 feature; but if it failed, Com 10 Bde would take over full responsibility for clearing the SOUTH bank of the R.ATHO. The Div Com stressed the urgency of this operation, and the need for its completion was in the air.

As a result of the attack by 2 Kings, Com 10 Bde spent the day 6 Aug in recon and reorganizing. He decided to send 2 Bde's Herts round to the RIGHT flank in rear of 4 Recce Bgt, in order to be in position to

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28 Aug 84e was holding pt 490 (N. PLINK) - pt 503, and 4 Recon Regt, in a protective role on the RIGHT flank of the div, was holding pt 492 and thence EASTWARDS to the R. ANCH.

2. Preliminary action and planning.

It was clear that the key to the enemy position was the INCONTRIO monastery feature, which overlooked the river. On the night 4/5 Aug, 2 Son I.I. (20 Bde) had sent a fighting patrol on to its WESTERN slope, where five P.W. from the III Bn 104 P.B.R. were taken. It was then apparent that the feature was held by 2000 troops. On the night 5/6 Aug 2 Son I.I. tried to occupy the feature with two coys attacking from the S.W., but this approach proved to be a ground slope completely dominated by the enemy, and the attack failed.

It was now decided that 2 Kings (20 Bde) should make a further attempt to capture the feature with two fighting patrols on the night 6/7 Aug. In this attack succeeded, 2 D.O.I.I. (10 Bde) would come under command 28 Bde, pass through 2 Kings, and seize the 497 feature, but if it failed, Com 10 Bde would take over full responsibility for clearing the SOUTH bank of the R. ANCH. The Div Com stressed the urgency of this operation, and the need for its completion was in 48 hrs.

Regarding the result of the attack by 2 Kings, Com 10 Bde spent the day 6 Aug in recon on the morning. He decided to send 2 Bed's Herts round to the RIGHT flank in rear of 4 Recon Regt, in order to be in position to attack the enemy LEFT flank at pt 497, either as an alternative approach to the INCONTRIO feature, or as a diversionary action designed to make the enemy disperse his forces and so weaken the defence of the INCONTRIO feature.

On the same day, Comd 20 500 was informed by a priest who had escaped from the monastery that the INCONTRIO feature was held by about 100 enemy with 4 or 5 Spandaus.

The attack on night 6/7 Aug by 2 Kings was unsuccessful; the South Western approach was a convex slope, and afforded concealment to an attacking force up to a very short distance of the enemy position. About 30 enemy in saungers were discovered on the Western slope.

At 0630 hrs on 7 Aug, Comd 10 had taken charge of the whole operation, and immediately gave orders for 2 Divs to move as planned. The bn was in its conc area by 1200 hrs. C.O. 2 D.C.I.I. was ordered to attack the monastery at first light on 6 Aug, the hour being fixed for 0520 hrs.

Comd 10 Inf Bde, C.O. 2 D.C.I.I. and C.O. 22 Bde Regt RA proceeded to carry out a very detailed and extensive, search of the enemy posts on the INCONTRIO feature, as a result of which several of the posts were pinpointed, the full appreciation being that the enemy was holding the S.E. corner of the monastery with one or two posts in the SOUTH wall, that there was another pl post outside the WEST wall, that the total enemy strength was about one Coy, with five Spandaus and possibly some mortars in all. It was further thought that the approach from the C.W. gave the best chance of forming up within assaulting distance. In order to determine the practicability of this line of approach, and also to test the enemy reaction to a move against the monastery feature, a strong flashlight patrol was sent out by daylight on 7 Aug into the village of TAZAVO where enemy had been reported the previous day.

This patrol reported the village of TAZAVO.

3. Bde Comd's Plan.

In outline, the Bde Comd's plan was as follows:

2 D.C.I.I. to capture the monastery feature.

and immediately gave orders for 200 Air Force to move as planned. The 1st was in its cone area by 1200 hrs. 0.0. 2 A.C.I.I. was ordered to attack the monastery at first light on 18 Aug. "H" hour being fixed for 0520 hrs.

Coord 10 Inf Regt, 0.0. 2 A.C.I.I. 22 Inf Regt HA proceeded to carry out a very detailed and extensive record of the enemy losses on the INCONTRU feature, as a result of which several enemy losses were pinpointed, the full appreciation being that the enemy was not the 3.1. corner of the monastery with one 31 w. 1.2. in the SOUTH WALL, that there was another platoon outside the WEST WALL on 2200 hrs. 2200 hrs. 2200 hrs. was about one o'clock, with four Spanish and possibly some others in it. It was further thought that the approach from the 3.1. was the best chance of forming up within assaulting distance. In order to discover the possibility of this line of approach, and also to test the enemy's intention to move against the monastery feature, a strong fighting patrol was sent out by daylight on 7 Aug into the village of TIRZANG where there had been reports of activity day.

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This patrol reported the village of TIRZANG.

3. The 2nd's Plan.

In outline, the 2nd's plan was as follows:-

2 A.C.I.I. to capture the monastery feature.

2nd Air Force to occupy the enemy's position by active patrolling and to take every opportunity of establishing themselves on 20 457 (0.1.1.1.).

On capture of the monastery by 2 A.C.I.I. to be through 2 A.C.I.I. and to be prepared to capture either the 407 or the 407 feature.

4 Air Force Regt to protect the western flank of the 2nd, and to engage the attention of the enemy as much as possible.

4. *De la détermination des termes*

THE UNIVERSITY OF CHICAGO

On 11-12-2020, the following was received from the
The Catholic Charities of the Valley.

to be in line with the 2000 and 2010 data. The 2010 data are shown in Table 601 and were for 2009. The 2000 data were for 2000.

at 0520 hrs the 1st Co. was sent to Hill 100, 1st Bn., 1st Div., 1st Corps. Further later, further 200 was sent to Company 1st, 1st Bn., 1st Div., 1st Corps. Further 11st of 200 was sent to Company 1st, 1st Bn., 1st Div., 1st Corps. It was found that the high times in the 1st Bn. were 11st, 1st Bn., 1st Div., 1st Corps. and 11st, 1st Bn., 1st Div., 1st Corps. to burst.

During the time the 1st Bn. was sent to Hill 100, 1st Bn., 1st Div., 1st Corps. on 1st 470 and on 1st 407 (1st Bn.). The 1st Bn. was sent to Hill 100, 1st Bn., 1st Div., 1st Corps. at very reduced rates. A 1st Bn. was sent to Hill 100, 1st Bn., 1st Div., 1st Corps. to start at 0420 hrs and counter 1st Bn. at the same time which was 1st Bn. in upper register. These were to last about 11st 1st Bn.

The 1st Bn. was sent to Hill 100, 1st Bn., 1st Div., 1st Corps. at 1st 470 was almost 1st Bn. of 1st Bn. on 1st.

(b) 1st Bn.

(1) One 1st Bn. was sent to Hill 100, 1st Bn., 1st Div., 1st Corps. The 1st Bn. was sent to Hill 100, 1st Bn., 1st Div., 1st Corps. from 0510 to 0525 hrs and 1st Bn. was sent to Hill 100, 1st Bn., 1st Div., 1st Corps. from 0510 to 0525 hrs. The 1st Bn. was sent to Hill 100, 1st Bn., 1st Div., 1st Corps. from 0510 to 0525 hrs. The 1st Bn. was sent to Hill 100, 1st Bn., 1st Div., 1st Corps. from 0510 to 0525 hrs. The 1st Bn. was sent to Hill 100, 1st Bn., 1st Div., 1st Corps. from 0510 to 0525 hrs.

(2) 1st Bn. was sent to Hill 100, 1st Bn., 1st Div., 1st Corps. at 1st 470 and 1st 437 at 1st 470.

(c) 1st Bn.

(3) 1st Bn. was sent to Hill 100, 1st Bn., 1st Div., 1st Corps. at 1st 470 and 1st 437 at 1st 470.

(d) 1st Bn.

The 1st Bn. was sent to Hill 100, 1st Bn., 1st Div., 1st Corps. at 1st 470 and 1st 437 at 1st 470. The 1st Bn. was sent to Hill 100, 1st Bn., 1st Div., 1st Corps. at 1st 470 and 1st 437 at 1st 470.

(e) 1st Bn.

The 1st Bn. was sent to Hill 100, 1st Bn., 1st Div., 1st Corps. at 1st 470 and 1st 437 at 1st 470.

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In the following reference to JLT, as noted in note that 2 D.C.I.I. number their file through copy as follows:-

"D" Coy - 7, 8 and 9 JLT.

"E" Coy - 10, 11 and 12 JLT.

"F" Coy - 13, 14 and 15 JLT.

"G" Coy - 16, 17 and 18 JLT.

At 0815 LT, "D" Coy moved off their position area, moving at 0815 LT, moving into the area of the 0815 LT. They moved up until 0815 LT, then went on to the 0815 LT. They moved up until 0815 LT, then went on to the 0815 LT.

They left the 0815 LT, then went on to the 0815 LT. They moved up until 0815 LT, then went on to the 0815 LT. They moved up until 0815 LT, then went on to the 0815 LT.

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"G" Coy followed up the position area, moving at 0815 LT, then went on to the 0815 LT.

At the 0815 LT, they moved up until 0815 LT, then went on to the 0815 LT. They moved up until 0815 LT, then went on to the 0815 LT. They moved up until 0815 LT, then went on to the 0815 LT.

1300 hours, 17 pl of "C" Coy and 10 pl of "A" Coy cleared the reverse slope, and was fired on from inside the wall and also from pt 470. The pl was held up on the N.W. corner, and the pl could not move. A road that tried to push on round the slope suffered total casualties in killed or wounded.

At this stage 10 pl was ordered to go through the WEST wall. This they accomplished at about 0600 hrs by throwing No. 77 grenades over the wall to cover the gaps. These gaps were by no means complete and there was about 3 ft of masonry to be climbed over. The pl got among the trees about 30 yds from the monastery tower when very heavy fire was opened on them at close range both from the east of the tower and from the monastery itself. The pl soon was killed and the remnants of the pl crept back and dug in inside the wall. The entry of 18 pl had been supported by 15 pl who got on top inside the wall and dug in at the N. corner. All this time the Coy had been guessing casualties from mortaring and by 0700 hrs it became evident that no further advance inside the wall was possible.

Meanwhile, inside the monastery the garrison could, an offer of 6 Coy 104 FGR had been refused, and was the only int offer present, the pl could, who were afterwards, a refusal on as best they could. The German gunner P00 had with him another gunner offer, new to the Coy, who had been sent up to the monastery to gain experience. Our opening arty concentration had cut the line back to their guns, and although they had a wireless set it was not "through", so they were unable to bring down observed fire from their excellent OP.

Accordingly, the gunner P00 sent his signaller back (they are the only member of the garrison known to have escaped), and the two offers with their OPA armed themselves with hand grenades and submachine guns and joined in the counter-**ggg** attack the wall.

For two hours from 0600 to 1400 hrs there was close fighting and grenades throwing in all sectors. Inside the wall, some of the grenades were later found to have exploded against them, and it was unlikely that the enemy used more for this reason.

the crest of the tower and from the top every 15 minutes. The pi command was killed and the remnants of the pi command back on the hill. The entry of 13 pi had been supported by 16 pi who got one one another the wall and dug in at the N. corner. All 6 in this the day had been getting casualties from sniping and by 0700 hrs it became evident that we further advance inside the wall that possible.

Meanwhile, inside the wall every the situation could be seen after 0600 hrs 104 RGR had been wounded, and the only one left present, the pi command, who were 1000 hrs, carried on as best they could. The German gunner 700 had been from another quarter of the wall, and the German command went up to the cemetery to make a decision. Our opening very concentration and cut the line back to their gun, and although they had a machine gun it was not "through", so they were unable to bring down observed from from about excellent of.

Accordingly, the gunner 1000 hrs and the situation back (they are the only member of the position known to live, occupied), and the two others with their CPA arrived themselves with their own 1000 hrs and 1000 hrs joined in the center of the wall.

For the night from 0600 to 1000 hrs there was some fighting and general shelling in all sectors. Inside the wall, some of the groups were later found to have been engaged in a fight, and it was likely that the enemy used these for their purpose.

Meanwhile, "D" Coy had left the command, then later at 0500 hrs and moved 1000 hrs SOUTH OF HARBOR, the command and "E" group joining the 1000 hrs. At 0700 hrs the U.S. ordered "D" Coy to move up the line and to the area just SOUTH of "E" Coy, and to contact "D", and if possible "C" Coy.

"D" Coy left its 3100 hrs covered by 1st Coy, 1st Bn, 1st Div. This move entailed a climb of 700 ft. As 1st Coy approached "B" Coy, a second counter attack developed on the S.E. corner from inside the wall and from across down the N.E. slope. (NOTE: Half an hour before this counter-attack a machine gun burst calling "Hello" from various places inside the wall; eventually, thinking it might be someone from "C" Coy, this call was answered, and the exact location of the pl was revealed). The counter-attack developed in some strength from the EAST and N.E. (where 1st Coy of 104 PIR was located). The pl on the S.E. corner was pulled back about 200 yds, and very heavy fire, at 1000 hrs, was brought down by us on that corner.

At 1020 hrs "D" Coy's "C" pl joined "B" Coy HQ on the S.W. corner. The plan was for "D" Coy supported by artillery concentrations to recapture the S.E. corner, attacking on a thrust front and swinging round towards the NORTH, with RIGHT PL, LEFT 7 PL, and 1st Bn behind 3rd HQ, 9 PL. On the capture of the S.E. corner, two pl of "B" Coy was to take over the corner post, thereby relieving "B" Coy to attack front the lodge at the N.E. corner of the monastery.

"B" Coy's attack started at 1000 hrs and the S.E. corner was reached at 1145 hrs. At 1210 hrs there was no longer any indication of enemy on the S.E. slopes which had been heavily engaged by 1st Coy, the 1st Bn, and 7 PL were ordered to enter the monastery through the gate 200 ft in the wall above the S.E. corner. This move was carried out without consultation, and the pl made for the lodge at the N.E. corner. It was fired on from the lodge 1397 suffering slightly in the process, but finally succeeded in capturing the lodge and its contents of 25 German at about 1315 hrs.

Meanwhile, 8 PL was relieved by "B" Coy, and at 1250 hrs was ordered to attack the monastery. It surrounded and captured the building and discovered the large number of enemy from the house. It started to clear

6. Enemy Forces

(a) 67 PW were taken on 20 November. All killed, 2 were, of whom 7 were wounded. This total included the wounded and off, the two wounded art. officers, four advisors and two staff-officers. 10 enemy dead were found.

(b) The following enemy weapons and equipment were captured:-

- 1 x 81 mm mortar
- 10 Spandaus.
- 5 Submachineguns
- 6 Automatic rifles.
- 50 rifles.
- 4 Handgrenades.
- 1 Wireless set.

7. Lessons.

(a) Reconnaissance.

As a result of a very careful and detailed recon, and good patrol work, it had been possible to locate the enemy's main defensive position covering the main street feature. All things were done to have a good look at the ground and all was very thoroughly well worked. Both the fighting patrol of 2 King and the fighting patrol of 2 D.C.I. provided valuable information.

(b) Attack plan for fighting.

It was possible for all work to have ample time in which to work out plans with the result that things proved practical and the arrangements for work were perfect.

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The attack by 2 D.C.I. forces on the main street succeeded admirably in the object of capturing many resources, and, as the enemy proved, included the main street. In fact, the main street was the main street with outside

(c) Ground.

The adv of "D" Coy D.O.I.I. straight up the great South slopes of the monastery turned the scale at the psychological moment.

(c) Surprise.

It is worth while going to any length to surprise the enemy in some way or other. In this operation the enemy was unquestionably surprised and deceived.

The enemy plan certainly deceived him; the line of adv taken by the assaulting Coy's touched the weakest spot in his defenses and this adv by "D" Coy up the Southern slopes completed his miscalculation and frustrated his counter attack plans.

The enemy was clearly undecided whether the attack by 2 Bn's Tanks was being made in conjunction with the attack by 2 D.O.I.I. and remained convinced throughout the operation that an attack was coming in from that direction at some time. As a result he felt himself unable to reinforce or by his use in the monastery.

The admirable work of the tanks in reaching, flanking a position from which they dominated the Western wall of the monastery, and subsequently, in arriving on the monastery's flanks, is a most remarkable surprise to the enemy. who, on the face of it, had every reason to believe that their position was well-nigh impregnable without the sacrifice of very heavy and disproportionate casualties to the attackers.

(c) Coordination.

The coordination of all arms was a decisive factor in the success of this operation. The, day and night all played at one time or another in the operation, and the enemy was. The breaking up of the counter-attack by the tanks and army could not bring to the, in 1947, and that it is now finished.

(c) Central

It is the most interesting feature of this operation.

The enemy was of only one kind, the attack by 2 Bofors units was being made in conjunction with the attack by 2 D.C.M. and remained convinced throughout the operation that an attack was coming in from the direction of some time. As a result of it in himself unable to reinforce or up his troops in the monastery.

The situation was of this in reality, first a group from which they surrounded the Western wall of the monastery, and then, in arriving on the monastery for some time, but have come as a most unpleasant surprise to the enemy, who, on the face of it, had every reason to believe that their position was well-nigh impregnable, without the exception of very heavy and disproportionate casualties to the attackers.

(a) Organization.

The core of the force of all arms was a decisive factor in the success of the operation. The, therefore, had been all planned on one or more of the operation, a decisive part. The breaking up of the enemy's attack by the use of the only one thing to the enemy, and this is the most important.

(b) Control.

It was the most important factor of the operation was the control of control from the point of view of the control of the control of the control. Control from the point of view of the control of the control of the control. Control from the point of view of the control of the control of the control.

The control by coy and pl coms was quite first class and as a result of the information they passed back, the C.O. was able to issue the orders to "D" Coy which turned the tide of the whole battle. The perfect understanding between the inf and the air army proved decisive in the destruction of the enemy's second and final counter-attack.

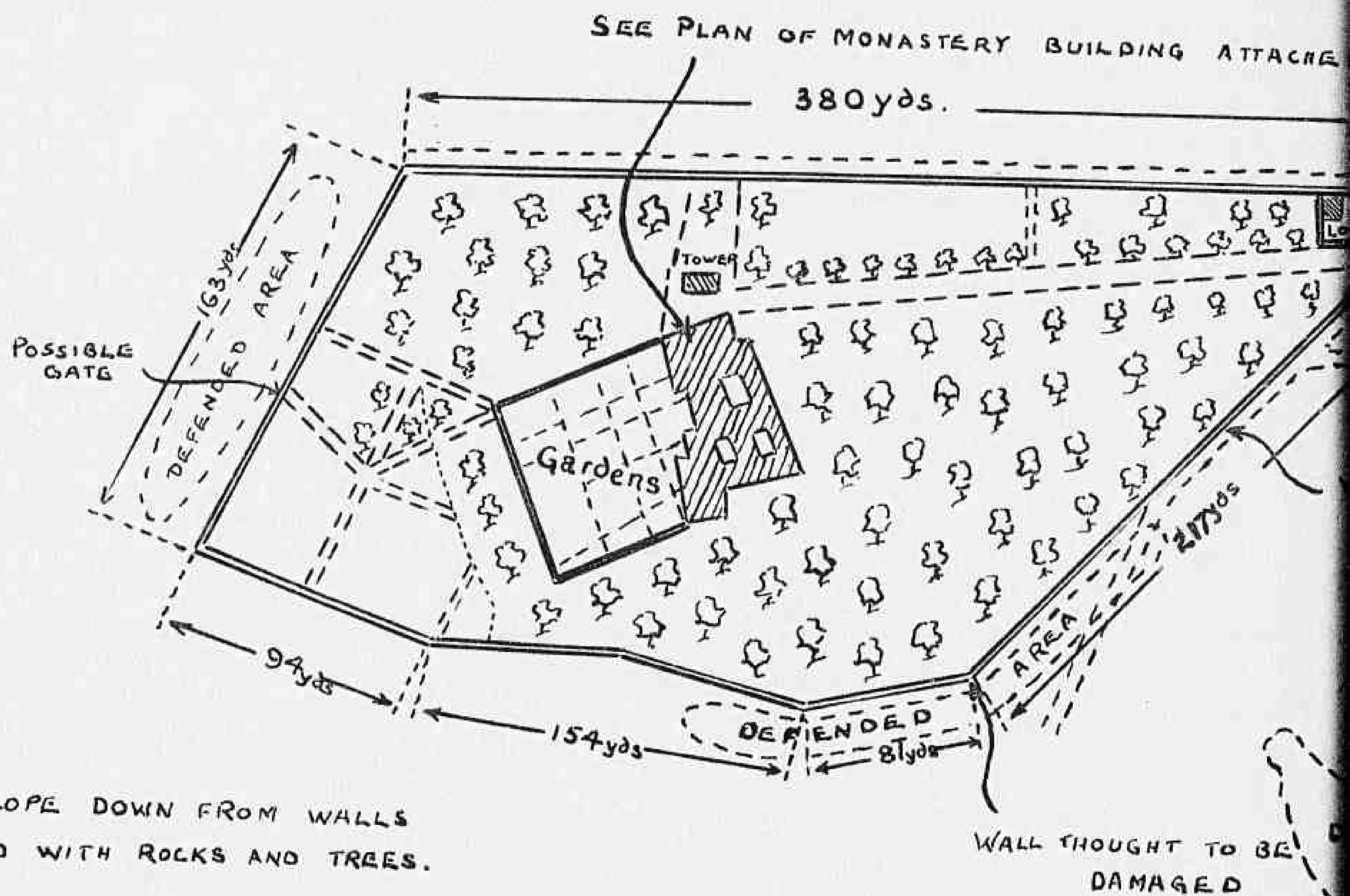
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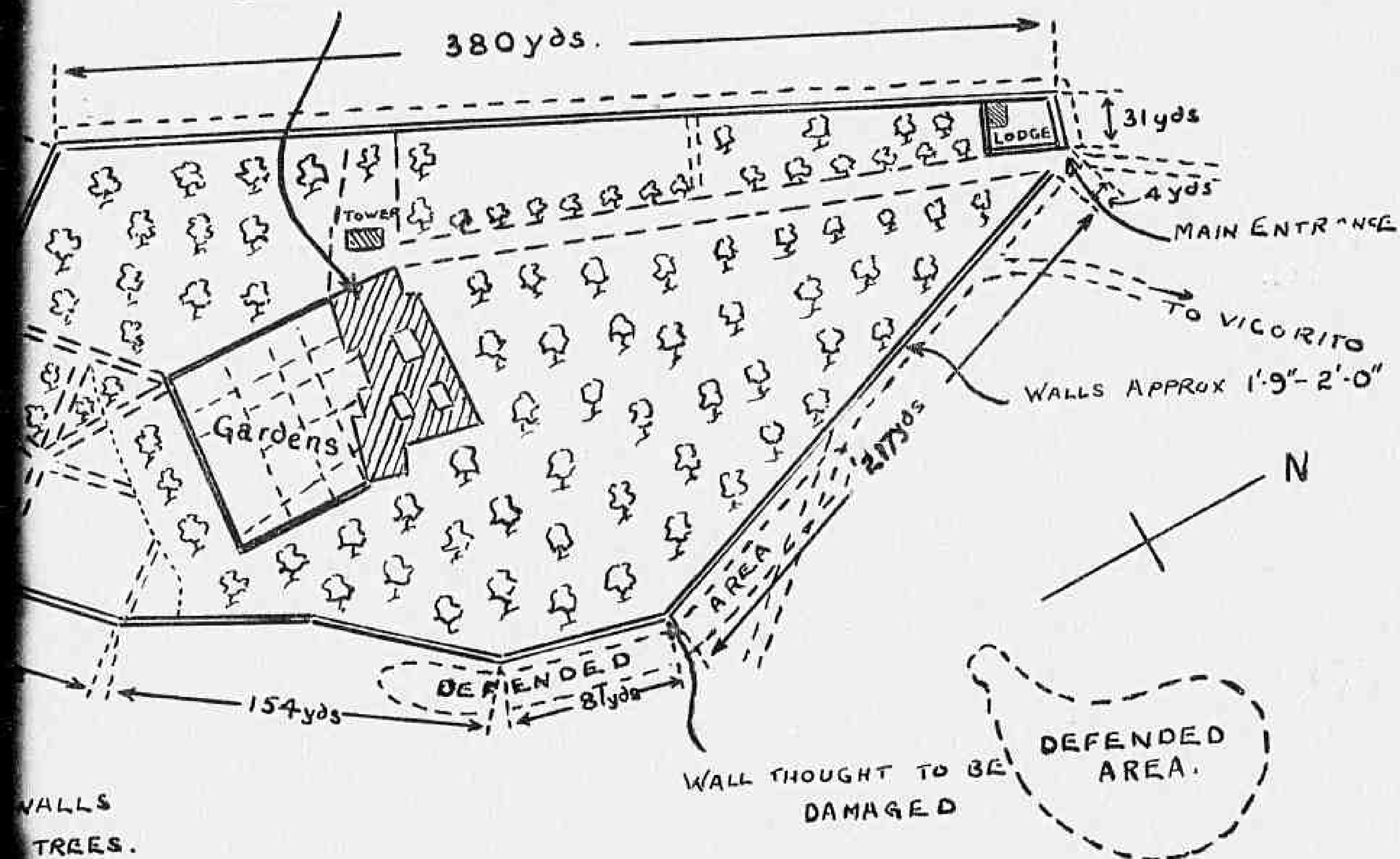
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PLAN OF MONASTERY AND SURROUNDS

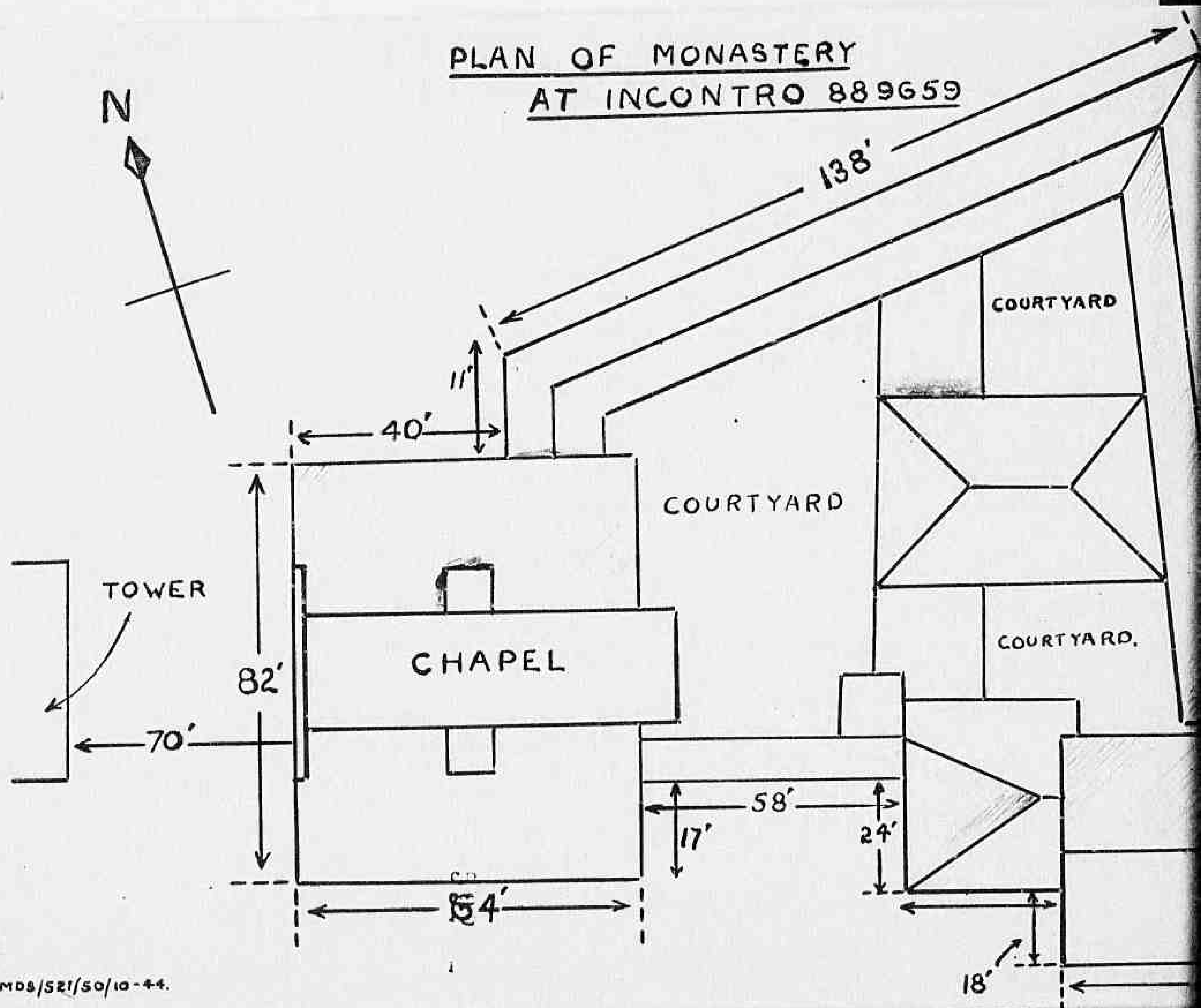
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SEE PLAN OF MONASTERY BUILDING ATTACHED.

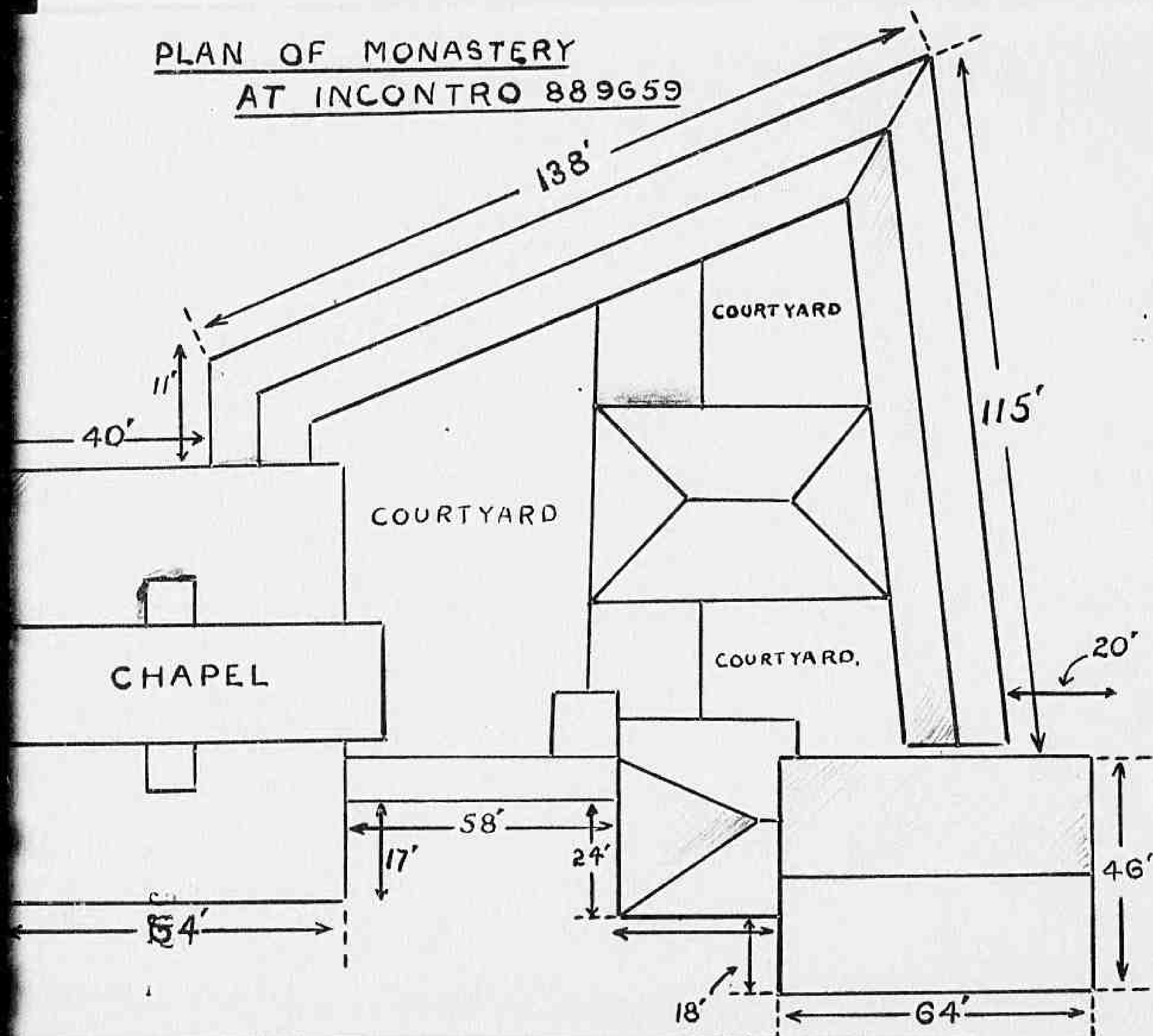


OF MONASTERY AND SURROUNDS

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PLAN OF MONASTERY
AT INCONTRO 889659



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9 Oct 44.

NOTES FROM V CORPS

(after the break into the GOTHIC Line)

The following notes were produced by a Staff Liaison Officer after a visit to 5 Corps, 9-11 Sep 44. The Corps was in action NORTH of the GOTHIC Line. They were produced after conversations with Lt Col and Maj Combs, and are not issued as official doctrine.

TACTICAL1. Infiltration Tactics

The successful over running of the GOTHIC Line defenses on the GOTHIC Coast and the ground behind them was an outstanding example of how well determined, well trained troops can overcome enemy resistance and physical obstacles. The ground is very difficult, the defenses were formidable, and though the enemy was not prepared for a full scale attack he resisted strongly. During the battle there were a number of unit and sub-unit attacks, often in co-operation with the main force. The junior leadership displayed was of a gratifyingly high quality, as was the troops' response, and the value of a period of rest and trg was fully proved.

2. Ops on Flanks

In an adv, the Germans often mount ops on the flanks, from which they can be directed on to the advancing troops after the objectives on the main axis have been captured.

3. Selection of Bounds

If obvious bounds such as rds and streams are chosen, troops should NOT halt on them, but should move beyond them. The Germans know our habits and fire on the troops when they are killed on their bounds.

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The successful over running of the GTHO line depends on the attacking force and the ground behind them was an outstanding example of how fit, determined, well trained and well equipped enemy resistance and physical obstacles. The ground is very difficult, the defenses were formidable, and though the enemy was not prepared for a full scale attack he resisted strongly. During the battle there were a number of unit and sub-unit attacks, often in co-operation with the. The junior leadership displayed was of a gratifyingly high quality, as was the troops' response, and the value of a period of rest from the war fully proved.

2. Ops on Rivers

In an adv. the Germans often maintain ops on the flanks, from which fire can be directed on to the advancing ops after the objectives on the main axis have been captured.

3. Selection of Bounding

If obvious bounds such as ridges and streams are chosen, the should not halt on them, but should move beyond them. The Germans know our habits and fire on the bounding force as it halts on their bounds.

4. Attacks on Villages

Never assault a village at night. In darkness in towns or villages the advantage lies with the defenders. It is often advisable to approach village in the dark, and form up for an assault at first light.

TRAINING

5. See in drill (see table drill in one bn)

KEY

- B: See word (used with rifle).
 B: See word. approach objective according to command. Spray the objective from B1. Then move to flank and continue shooting from B2.
 C: Reinforce of sec. approach to throwing distance, throw grenades and then go in with the bayonet.

NOTE: This drill is varied according to circumstances.

6. Inf and Inf Cooperation

A problem sometimes arises when infantry cooperation is required on the battle field between a body of inf and a body of the who have not been previously "married up"; and whose 3d sets may not be on the same frequency. There are three possible solutions:-

- (a) The best: improve training in quick re-netting.
 (b) For all rifle pls in a bn, and all sp lks to be on the same frequency. There are two objections to this:-

- (i) They may be overcrowded.
 (ii) They may appear from another unit altogether, whose frequency is different.
 (c) A possible solution would be for all sets in the two units to be

B: The man, although objective escorting see even. Specify the objective from it. When says to flames and continue shooting from it.

C: Beginning of job. Approach to the end distance, then grenades and then go in with the bayonet.

NOTE: This drill is varied according to circumstances.

6. The end Inf Co-operation

A problem sometimes arises when infantry co-operation is required on the battle field between a body of inf and a body of tes who have not been previously "trained up"; tes whose JB sets may not be on the same frequency. There are three possible solutions:-

(a) The best: improve training in quick re-setting.

(b) For all rifle pls in a tes, and all up tes to be on the same frequency. There are two objections to this:-

(1) This may be overworked.

(2) The tes may appear from another unit altogether, whose frequency is different.

(c) A possible solution would be for all tes in the two units to be put on a pre-arranged frequency when the need for infantry co-operation arises.

7. Co-operation JCS/ART/Inf

(a) Co-operation between art and inf is nearly always excellent. This is largely due to the fact that units have trained and lived together for long periods.

(b) On occasions, owing to regrouping, they have had to attack in co-operation with SAG units whom they have met for the first time on the battlefield. This is not desirable, but it is often unavoidable, and must be recognized.

8. Snipers

- (a) In snipers have been most successful.
- (b) In addition to being a marksman, it is essential that a sniper should have good eye, dexterity and skill in fieldcraft.

COMMENT BY D.A.F.

The right type of aim, and is an adequate shot, and also possesses the other qualities of a sniper, is not very easy to find in a bn, unless he is an N.C.O.

WEAPONS

9. The Rifle

It is thought that a light semi-automatic rifle would be an improvement on the present type, which is designed for accurate shooting at unnecessarily long ranges.

10. The TMC

- (a) It has been found that a sec could cannot effectively control his sec and use his Tommy Gun at the same time. In one on it is the practice to aim the sec with rifles and two men of the sec with Tommy Guns.
- (b) A 40-rod TMC may can be made by holding two mags back to back.

11. Granades

- (a) The 69 grenade is thought to be of great value, owing to the fact that the thrower need not take cover.

The right type of rifle, and is an advantage to shoot, and also possesses the other qualities of a sniper, is not very easy to find in a bn, unless the is an N.C.O.

GRANDS

9. The Rifle

It is thought that a light semi-automatic rifle would be an improvement on the present type, which is designed for accurate shooting at unnecessarily long ranges.

10. The T32

(a) It has been found that a scout cannot effectively control his second man his T32 can at the same time. In one bn it is the practice to arm the scout with rifles and two men of the bn with Tommy guns.

(b) A 40-cal T32 may be made by attaching two wings back to back.

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11. Grenades

(a) The 82 grenade is thought to be of great value, owing to the fact that the two wings can take cover.

(b) The 77 grenade is a most excellent weapon.

(c) The present method of carrying the 77 grenade close to the body is not very satisfactory. A utility pouch as a carrying pocket would be an improvement.

(4) It is thought that if all our grenades with lateral effect not much less than the 36, which could be thrown like a cricket ball, is required.

COMMENTS BY D.M.L.

(a) Many times before, while recognizing the advantages of the 69 grenade, usually combined with account of its poor falling effect.

(b) It is stated that, in battle, necessary with the 36 grenade is difficult to achieve. Possibly research should be directed to producing a grenade which can be thrown accurately at its long range.

12. The PLAT

This is an anti-tank weapon, and has many uses apart from engaging tanks. It is thought that every endeavour should be made to reduce its weight.

13. Mortars

The 4.2" mortar is an excellent defensive weapon. The 3" mortar flash makes it conspicuous in use at the post.

COMMENTS BY D.M.L.

(a) Experience has shown that the comparative clumsiness of the 4.2" mortar does not preclude its use in attack as well as defence.

(b) It would appear that this applies to the 100 grain and 210 grain secondaries. Experience and experiments prove that the 230 grain secondary with the NEONITE falling has much reduced flash. These secondaries have not yet entirely replaced the old type in this theatre. When the 90 grain primary is issued flash will be still further reduced.

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INTERCOM

12. Ray Film

This is an invaluable weapon, and we may use it to our advantage. It is thought that every situation should be made to reduce the weight.

13. Mortars

The 4.2" mortar is an excellent defensive weapon. The 3" mortar makes it conspicuous in a static position.

COMBAT BY D. A. P.

- (a) Experience has shown that the mortar is a valuable weapon. The mortar does not require its use in attack as well as defense.
- (b) It would appear that this applies to the 100 grain and 210 grain secondaries. Experience and experiments prove that the 280 grain secondary with the HEONITE filling has much reduced flash. These secondaries have not yet entirely replaced the old type in this theatre. When the 30 grain primary is issued flash will be still further reduced.

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INTERCOM

14. 36 Set

- (a) Three 36 sets are allotted to each rifle company and are found to be invaluable. As the mortars are usually fired as a battery they only require a small allotment of 36 sets.

(b) For operations very careful work is needed, both technical and tactical. Frequent bn and coy sig exercises should be carried out. The operator should be taught to move on an axis which suits the 38 set, and not to trail the pl comd at all times. During quiet periods he can move to successive viewpoints and tactical bounds behind the pl comd and com, if ordered, give periodical reports on the battle. During more active periods he should move close to the pl comd. When passing through thick cover etc he should inform the control set that he is going off the air and discontinue his aorial.

(c) After a battle, and at suitable intervals, the 38 sets should be handed in to the sig pl for servicing.

15. 48 Set

This is found to be a great improvement on the 18 set. Ten sets are held in the bn. Two more would be useful.

16. 22 Set

(a) The Sig pl requires 6 Everest carriers for the bn rear link set and connected eqpt.

(b) Bn and inf personnel have successfully carried their 22 sets on man pack 10 to 12 miles in hilly country in recent ops.

(c) Rebroadcasting by the 38 set has not been a success.

(d) There is thought to be a need for a more powerful set than the 18/48 in the bn for com with "A" Ech. If it is impracticable for this set to work on the bn net, it could "listen" on the bn net. "A" Ech is frequently out of range of the 18/48 set.

(see DAF comments on page 10)

17. Wireless - General

(a) A res of aerial rods is required in the bn.

(b) A bn must go into battle with new or fully charged batteries.

(c) and 18/43 set, and at suitable intervals, the 38 sets should be handed in to the sig pl for servicing.

15. 43 set

This is found to be a great improvement on the 18 set. Ten sets are held in the bn. The more could be useful.

16. 22 set

(a) The sig pl requires 6 Everest carbons for the bn rear link set and connected capt.

(b) Bn and inf personnel have successfully carried their 22 sets on men pack 10 to 12 miles in hilly country in recent ops.

(c) Recombining by the 38 set has not been a success.

(d) There is thought to be a need for a more powerful set than the 18/43 in the bn for comm with "A" Ech. If it is impracticable for this set to work on the bn net, it could "listen" on the Ede net. "A" Ech is frequently out of range of the 18/43 set.

(see DMT comments on page 10)

17. Wireless - General

(a) A res of aerial rods is required in the bn.

(b) A bn must go into battle with new or fully charged batteries.

(c) When stores are brought up, wireless batteries should usually be given first priority.

18. Cable

- (a) Assault cable is found to be excellent.
- (b) Spare 4 mile drums are required.
- (c) A device for laying cable by jeep is required.

19. Inf R.T. Sets

- (a) It is noted that the Inf Rm requires two additional 15 or 40 sets, and additional 30 sets. A spare rear link 22 set is also required.
- (b) The 22 set often has to be carried in man pack. It is too heavy and bulky for Hqs, and every soldier should be made to produce a more portable set.

20. Site of HQ

One of the considerations is to choose an area where wireless sets will work well.

Equipment21. Vasey Pistol

- (a) A lighter type of pistol is required.
- (b) A stowed cartridge carrier, similar to the German type, is required.

22. Trailers

An increased establishment is required. The usefulness of a veh can be greatly and easily increased by attaching a trailer to it.

23. Jeeps

- (a) A number of hrs in the battle have as few as 4 or 5 jeeps, and replacements of jeeps destroyed in battle are not always available.

(b) The set should not have to be carried on a pack. It is too heavy and bulky for that, and every endeavour should be made to produce a more portable set.

20. Size of HQ

One of the considerations is to choose an area where wireless sets will work well.

Equipment

21. Very High Power

- (a) A lighter type of plate is required.
- (b) A standard carrying carrier, similar to the German type, is required.

22. Trailers

An increased establishment is required. The usefulness of a vehicle can be greatly increased by attaching a trailer to it.

23. Jeeps

- (a) A number of these in the battle have been few as 4 or 5 jeeps, and replacements of jeeps destroyed in battle are not always available.
- (b) They are invaluable for evacuating wounded, and lives have been saved by them.
- (c) Carriers are not a satisfactory substitute, particularly at night.

REINFORCEMENTS AND CASUALTIES24. Battle Training

There is a lack of versatility. No two problems in war are alike and it is not good enough to train in a series of set drills.

COMMENT BY D.I.E.

This point applies particularly to the try of OOTY cadets and junior officers, but set drills should be taught first emphasizing that they are only typical basic shots.

25. Quality of Rifles

In a recent draft of 20 rifles, 12 were found to be medically unfit. Drafts need careful medical examination on arrival and before dispatch forward.

26. Rifles

The standard of try is usually satisfactory. Men learn very quickly from battle experienced comrades. Before a new draft goes into battle time is needed to fit the men into their weapons.

27. Officer Casualties

The effect of officer loss on a bn is usually greater than the figures suggest. If a bn loses 12 officers it is very probable that 10 of these will come from the rifle coys. This means that while the bn as a whole has lost 12/36 of its officers, the rifle coy have lost 10/20.

MISCELLANEOUS28. Fighting Order (as worn in one bn)

Light Order plus small pack.

Light Order:-

Belt, braces and pouches.
Entrenching tool on front.
Gas cape on back, tied to belt by valise straps.

containing gulliver, socks, antiseptical outfit, sponge
Mug hung from belt in rubber cover for 3-inch mortar

units, but several should be taught first emphasizing that they are only typical basic shots.

25. Quality of Rfts

In a recent draft of 20 rfts, 12 were found to be seriously unfit. Drafts need overall medical examination on arrival and before despatch forward.

26. Rfts

The standard of rft is usually satisfactory. Men learn very quickly from battle experienced comrades. Before a new draft goes into battle time is needed to fit the men into their shoes.

27. Offr Casualties

The effect of offr cas on a bn is usually greater than the figures suggest. If a bn loses 12 offr it is very probable that 13 of these will come from the rifle cys. This means that while the bn as a whole has lost 12/36 of its fire, the rifle cys have lost 10/20.

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MISCELLANEOUS

28. Fighting Order (as worn in one bn)

Digat Order plus small pack.

Light Order:- Belt, braces and pouches.

Entrenching tool on front.

Gas cys on back, tied to belt by valise straps,

containing pullover, socks, antiscalarial outfit, spoon,

Mug hung from belt in rubber cover for 3 inch mortar telescopic.

29. Arm carried by Sec (This will vary with type of op)

100 rls per rifleman

10 axes per TMC

Two 36 grenades per man on belt

One 69 grenade per man in pouch

One 77 grenade per man on pouch

15 LMC axes per sec (reduced to 15 if sec is below str.)

30. Colours and Patterns

The British Army does not make much use of coloured flares. It is thought that many more colours and types of flares, stars etc could, if they can be produced, with advantage, be used by an Army trained to the present high standards of the British Army.

31. Maps and Air Photos

(a) Exposed maps are invaluable in hilly country and should be widely distributed.

- (b) Air photos should be issued as early as possible before an op.
 (c) The standards and sizes should have tabs on both sides.

32. Load on the Man.

In spite of much discussion about reducing the weight on the man, there is still a tendency to overload him.

33. Rations.

It is often necessary to live on less than 1.45 hr ration improvised out of the ordinary ration. This is most unsatisfactory. The boxed 24 hrs ration is seldom available and should be.

COMMENTS BY D. F. F.

(a) From its nature the 24 hr ration is very compact, and some items such as porridge, soup and tea, require water. Consequently unless a local water supply is available the soldier does not derive full benefit from the ration. It is thought that further research should be directed to devising portable individual rations suitable for various climatic conditions.

(b) The ration components are not standardized:

Jam	}	are packed in tins of varying sizes by different manufacturers.
Marjoram		
Cheese		
Turned Stews		

It is consequently very difficult to distribute rations fairly to individual men. It is thought that the contracts should stipulate standard patterns which are distributed.

32. Load on the man.

In spite of men's discomfort about holding the weight on the man, there is still a tendency to overdo it.

33. Patterns.

It is often necessary to give each man a 24 hr ration in a variety of different ways. This is a very difficult story. The basic 24 hr ration is still available in a number of ways.

COMMENTS BY D. L. M.

(c) From its nature the 24 hr ration is very compact, and some items such as porridge, soup and tea, require water. Consequently unless a local water supply is available the soldier does not derive full benefit from the ration. It is thought that further research should be directed to devising portable individual rations suitable for various climatic conditions.

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porridge		
cheese		
tin of stew		

It is consequently very difficult to distribute rations fairly to individual men. It is thought that the containers should be standardized patterns which are divided into two portions, or still multiples thereof.

34. Firepower

(a) - Lighter armor is needed. The anti-airing tool is not much good, as it needs too long to set up. The anti-air pattern is better than the anti-air, which is too heavy and unnecessarily durable for battle conditions.

(b) - There should be a shot or arrow in the attack in the proportion of 1 : 3.

35. Stretching Power

Four stretching exercises per day have not been found to be adequate. An increase to eight is recommended.

COMMENT BY D. L. T.

Owing to the manpower situation in this increase would probably have to be made at the expense of the rifle boys. It is doubtful if a majority of the officers will agree with this proposal.

36. Medical for fighting

It is thought that medical should be given to fighting troops, as distinct from the medical service.

37. Decorations for gall service in battle.

There is a need for decoration for soldiers who have done their duty well for long periods under battle conditions, but who have no exploit to their credit and no other decoration.

38. Combat Medical Centres.

These have the following disadvantages:-

(a) Courts are not likely aware of the disciplinary problems in fighting units.

(b) Witnesses, (usually medical corps), are often away from their units for long periods.

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35. Stretcher Borne

Four stretcher bearers and equipment not been found to be adequate. An increase in about 15 recommended.

COMMENT BY D. H. N.

Owing to the manpower situation this increase would probably have to be made at the expense of the rifle regts. It is doubtful if a security of 100 rifle troops could be maintained with this type of unit.

36. Need for Nighttime

It is thought that special need should be given to rifle regts, as distinct from of other base units.

37. Desertion with Civil Service in Battle.

There is a need for cooperation for soldiers who have done their duty well for long periods with commendation, but who have no appeal to their credit union, with desertion.

38. General Official Control.

There are the following disadvantages:-

(a) Courts are not always aware of the disciplinary problems in fighting units.

(b) Witnesses, (usually soldiers), are often away from their units for long periods.

(c) Prosecution is not always able to refute false evidence given in court by accused.

It is thought that in certain cases it would be better to convene Div or Hqs courts.

39. Shelling

In the present battle for the COAST LINE the have been very heavily shelled for long periods in the areas where it was not been possible to dispose adequate protective works. The fact that this is a major drawback. It is thought that research should be directed to further very much other than experience of reducing the physical and mental strain of prolonged shelling.

CONCLUSION BY DDT

Page 16 - 23 Set

(5) Experiments in other units suggest that there are possibilities in recording.

(1) Further technical difficulties in the field to more powerful set on the left.

SECRET

2 Oct 44.

NOTES ON THE GOTHIC LINE FIGHTING.

The following notes have been gathered from 56 Div by a D.M.F. observer. They represent individual views and opinions and must not be taken as official doctrine. The more important points have been referred to, and approved by, the G.M.

INTRODUCTORY.

1. These notes are compiled from experiences in the fighting on the ADRIATIC sector from 5 - 21 Sep when 56 Div formed part of 5 Corps.
2. The country through which the Div fought consisted of a series of lateral ridges between 200 and 500 metres high, divided by non-perennial streams. None of the rivers proved to be serious obstacles at this season, and bridges were not required to be built. The country was moderately close, and buildings and villages were frequently met. Roads were few and of poor quality.
3. The Div advanced throughout with an open left flank, as the flanking formations were echeloned back. Not only was this flank open, but it consisted of high ground held by the enemy in some strength, and gave him excellent observation.
4. Operations consisted largely of night advances and night attacks, armour coming up in support at first light. Daylight attacks generally proved to be expensive. A greater weight of enemy arty fire was experienced by this Div than in any other actions in Italy. Few mines or booby traps

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INTRODUCTION.

1. These notes are compiled from experiences in the fighting on the ADRIATIC sector from 5 - 24 Sep when 56 Div formed part of 5 Corps.
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3. The Div advanced throughout with an open left flank, as the flanking formations were echeloned back. Not only was this flank open, but it consisted of high ground held by the enemy in some strength, and gave him excellent observation.
4. Operations consisted largely of night advances and night attacks, armour coming up in support at first light. Daylight attacks generally proved to be expensive. A greater weight of enemy arty fire was experienced by this Div than in any other actions in ITALY. Few mines or booby traps were encountered.

GENERAL POINTS.

5. Counter bay.

The very heavy shelling by the enemy brought out the fact that neutralization and knocking out of enemy arty helps the attack more than anything else. The heavy inf was more largely caused by shelling. Inf comds are confident that British inf, if by armor, can take on any posn, capture it, and hold it, provided they do not suffer excessive cas from shelling. In this moving type of battle it is felt that our counter-battery was not so successful as it sometimes has been in the past.

(For these ops the U.S. org of both 5 Corps and Oan Corps was centralized under the latter Corps, which had considerably greater resources in med and arty available for this purpose. Arty R resources were also centralized. It is considered that this worked well in the larger-scale type of ops, such as the battle of the CORLING ridge. Arty R was continuous, about nine missions a day being flown. Medium bombers were used, and also ROVER DAVID and CARRANK. In addition, a new method of calling for air support on hostile posns was instituted, in the setting up of ROVER FRANK at HQ ACRA, whose sole task was to call for air support for U.S. purposes only.

The enemy had the div arty of nine divisions, a plentiful supply of ammo, excellent observation, and an almost perfect gun area in the foothills of the APENNINES. As his arty moved back the gun posns did not deteriorate. It was estimated that guns only remained in any one posn for approximately 16 - 24 hrs before moving, and possibly some bombardments and air sorties were directed at camouflaged, but vacated, posns.

Shells at first were poor, but improved somewhat as ops progressed.)

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The enemy had the air arty of nine divisions, a plentiful supply of fuel, excellent observation, and an almost perfect gun area in the foothills of the APENNINES. As his arty moved back the gun-teams did not deteriorate. It was estimated that guns only remained in any one position for approximately 18 - 24 hrs before moving, and possibly some light and air sorties were directed at camouflaged, but vacated, positions.

Shells at first were poor, but improved somewhat as ops progressed.)

6. Artificial moonlight.

During the last week of the period under review there was no moon. The use of searchlights at night to illuminate the battlefield was tried with some success, so far as can be at present ascertained.

Indirect lighting was used to assist movement of troops, infantry and tanks.

It can also, of course, be used for any other purpose that requires a degree of illumination at night.

The searchlights were sited 5000 - 5000 yds behind the Poles, and just on the reverse slopes of features.

Maximum frontages are as follows:-

Qty	(24 lights)	-	5000 yds.
Two tps	(16 lights)	-	3000 - 4000 yds.
One tp	(8 lights)	-	1000 - 1200 yds.

There is, of course, a general diffused light over a much larger area.

An inf bn who operated with the assistance of artificial moonlight, was most enthusiastic about its success. It gave enough light for men to move about with confidence, without any danger of being seen by the enemy. A fa arty regt believed the time it would normally have taken to get into action in the dark.

So far no ops have been sustained to any lights, nor, on two nights, was any obvious enemy shelling noticed in the area of the lights. As yet no deception in the use of these lights has been tried.

NOTE by D.M.C.

This is the first known occasion when this system of artificial lighting has been used in this theatre in ops against the enemy.

7. Traffic control.

(a) The new normal method of control by feeding only as many vehs onto the road as it will take, is operated, the usual number being 100 vehs per hour.

(b) G-2 (Ops) is responsible for all road moves. He is in close touch with AQ, CRE and PRO.

(c) T.P.s are set up as required. Six can be found, if required, from the LAA regt, while each bde finds one in its own area.

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(b) C-2 (Ops) is responsible for all road moves. He is in close touch with AQ, CPE and FPO.

(c) T.P.s are set up as required. Six can be found, if required, from the 1st regt, while each bat finds one in its own area.

(d) The road has been cleared on occasions for priority convoys most effectively by stopping all traffic in rear of the S.P. or the unit to be moved, and by dispatching an L.O. 30 mins ahead of the convoy to warn all pointamen.

(e) The div axis is topped and lit by red fluorescent lamps at night. The fullest use is made of signing.

(f) The div axis consisted for the most part of trucks and bull-dozed diversions. After 12 hours' rain, which made the axis impassable, a standstill order for all tpt was instituted, mules being used to supply men and rations. As a result, movement was again possible after less than 48 hrs. A continuance of traffic would undoubtedly have ruined the axis permanently.

(g) In these conditions of narrow lanes and bull-dozed tracks, only the highest degree of traffic discipline can be accepted. The leaving of 20 yds interval between vans when halted, pulling right into the verges to let vans pass, moving on of traffic past a temporarily broken down or halted veh., and similar small points must be rigidly observed.

8. Movement across country.

The lesson learnt in TUNISIA that, provided the weather is dry, a formation can go anywhere across country with all its tpt, irrespective of roads, was again repeated.

9. Isolation of the battlefield.

Features frequently dictated that one or two coys only could be deployed for the attack, but it was found that more cys were required to hold a feature against counter-attack. One have been heaviest in getting reserve coys and lns and sp weapons up onto the objective, as the enemy has consistently been fairly successful in temporarily isolating the battle field with arty fire. Increased counter-battery measures would seem to be required at this stage.

10. Open flanks.

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10. Open flanks.

Where a formation or bn attacks with an open flank, it should be on aim to elicit some force to deal with the enemy holding, and observing from, that flank.

11. Information.

Information was often indifferent. Too often there was a lack of inquisitiveness at unit HQ level. Reports were passed on as they were sent in, without any attempt at checking and clarifying, and determining the degree of reliability. This can frequently be done at this level, even if it takes a little time.

Faulty intelligence caused the bde to come under considerable shell fire while still embussed, while on another occasion, a village that was thought to be clear of the enemy was found occupied, and eventually took three days' hard fighting to clear.

Good liaison between formations is dependent upon having L.O.s at div, bde and unit level. This is obviously not always possible when cars are heavy, and communications difficult, and liaison consequently suffers.

12. Road blocks.

Roads in the PDLs leading into the enemy lines should always be blocked by Fd Inf. In the moving battle, odd vans, without guides, are apt to go too far Fd, especially at night, with unfortunate consequences.

13. Counter mortar.

In one bde a bde counter-mortar and counter-gun org has been set up, and has worked with success. The C.O. of the Fd Regt in close support of the bde and the AGO worked closely together, the AGO dealing with enemy mortars and close in S.P. guns, the Fd Regt's improvised C.B. org dealing with more distant targets. 4.2" mortars were fired in with the arty, and a certain proportion of ammo was set aside for these tasks. Information about targets came both from the counter-mortar OPs, and from normal gunner and inf sources.

14. Reinforcements.

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14. Reinforcements.

It is considered that reinforcements should be held further fwd in battle, so that they are immediately available to units. In these ops, there was a delay of three days before the arrival of reinforcements. It will be remembered that in TUNISIA reinforcements were flown up to formations from the UK.

This air unit its own first line range. Points to this theatre from KIDLINE R.B.F. They were subsequently kept together and largely went to those units with which they had trained. This was, of course, a great advantage.

It is generally agreed that the converted gunner reinforcements have done splendidly.

SNK AND INF CO-OPERATION.

15. Use of 38 sets.

(a) With a sqn of the allotted to two bns, as has frequently been the case, the use of 38 sets for the inf com has been virtually impossible, as this means that at least two boys of each bn are all on the same 38 set frequency.

(b) Often there has been very little opportunity of "merrying up" the and inf before an operation. It has occurred that a sqn other than the one expected has been placed in sq of an inf bn. In this case considerable time is required for netting. To overcome this, it is suggested that one or two sets in a sqn be netted in to the 38 sets of the other two bns of the bn. This should ensure that, if the sqn is sent to another bn, one set should be on the net, and the others could be netted in.

16. Physical com.

Physical com c.s. use of the tin telephone, has generally not been possible, owing to the scale of enemy shelling.

17. Indication of targets.

One bn arranged that a red Veroy light indicated the posn of our own tps, and a green indicated a target that the inf wished the tks to engage. This operated with fair success. Unfortunately, the supply of Veroy cartridges proved insufficient.

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18. Other means of comm.

On one occasion inf were held up and subjected to heavy shell fire, and were unable to get in touch with tks in their vicinity whose assistance was urgently required. However, the Arty WOC with the inf passed a message to his Regt Comd at Bde HQ. This was in turn transmitted to the tks

through the area HQ. at HQ. This worked in this case, but it, of course, extremely unsatisfactory.

19. L.O.s

7 para Bn, who were under command of the Div, always found a set L.O. with a heavy, who remained with the Div or in command of the case might be. These L.O.s were absolutely indispensable.

(D.L.T. Comment. Until recently not all and reports provided by L.O.s. There is no doubt that they are essential to the and the co-operation, and their provision should be standard practice.)

20. Death of night attacks.

Some attacks at night were made in considerable depth e.g. 2000 yds from the start line to the objective. Under these circumstances, progress is difficult to forecast. It was found that if the objective is not reached by first light, the must dig in where they are. The ones involved in continuing the attack in daylight, without a co-ordinated fire plan, will almost certainly be a success. If, however, the inf dig in where they are, they avoid the, and can later go on with the armory as it comes up at first light, together with effective arty sp, which can be arranged by that time.

21. Inter-amp.

(a) With no roads, and the Div axis blazed across country with the help of bulldozers, the bn rear line 22 sets have usually had to be carried on man pack. This, of course, means that the bn is out of touch with the until the HQ halts, and the set is opened up. Hales have been tried in the past without much success: they get hit, or fall down and damage the set. One alternative is to leave the 22 set on its own small distance to the rear and relay to it from the HQ by 13 set. This, of course, is usually done, but with long

20. Demolition night attacks.

Some attacks at night were made in considerable daylight, e.g., 3000 yds from the start line to the objective. Under these circumstances, progress is difficult to forecast. It was found that if the objective is not reached by first light, the unit dig in where they are. The ops involved in continuing the attack in daylight, without a co-ordinated fire plan, will almost certainly prove a success. If, however, the inf dig in where they are, they avoid ops, and can later go on with the armor as it comes up at tank light, together with effective arty sp, which can be arranged by that time.

21. Inter-ops.

(a) With no roads, and the Div axis blazed across country with the help of bulldozers, the bn rear link 22 sets have usually had to be carried on man pack. This, of course, means that the bn is out of touch with the until bn HQ halts, and the set is opened up. Rules have been tried in the past without much success: they get hit, or fall down and damage the set. One alternative is to leave the 22 set on its own some distance to the rear and relay to it from bn HQ by 18 set. This, of course, is usually done, but with long advances the 18 set gets out of range. Another, and better alternative, is the provision of 45 sets, which are admirably suited for the task, provided a clear frequency can be found.

(b) 35 sets thin the work of wall.

(c) Line was always used in preference to wireless, if it were possible.

DEMANDIV.

22. Hard instantot.

Basic training does not teach the inf soldier to fight in twos and threes, whereas the German does so frequently. As a result, with one to leaders of pls and secs, pls and even secs, tend to bunch more than they should, both in attack and defence. Emphasis on training in pairs would help to produce more individuality and self-reliance, reduce one, and assist in carrying out soundly the pl order's plan, both in attack and defence.

23. Inf 4 tk guns.

(a) Em have only manned four 4 tk guns, as, with machine and 4 tk guns always available, the need for all six guns has not been so urgent. Em say the have tended to sit back and sp their inf by fire, and have not preceded their inf in order to over-run our inf posts, so that 6 pls have had little opportunity of a shot.

(b) One bn found the 4 tk gun portec so conspicuous that its use was discontinued. Universal carriers from the carrier pl were used instead. These were successful in that they were inconspicuous, bullet proof, and could carry the crew and ammo. The 6 pls were too heavy, however, for the transmission, and clutch trouble stopped this method. The portecs are now being stripped of their superstructures to make them less conspicuous.

24. Battle patrols.

Battle patrols have been retained in this Div, and have done useful work. The policy in retaining these was that it was thought impracticable in the time available for training.

assist in carrying out usually the PI and/or's plan, both in attack and defence.

23. Inf 4 tk guns.

(a) Bns have only manned four 4 tk guns, i.e., with armour and PI guns always available. The need for all six guns has not been so urgent. Every time there tended to get back and as their inf by fire, and have not proceeded their inf in order to over-run our inf positions, so that 6 prs have had little opportunity of a shoot.

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24. Battle patrols.

Battle patrols have been retained in this Div, and have done useful work. The policy in retaining these was that it was thought impracticable in the time available for training before these ops, to reach a satisfactory patrolling standard throughout Bns, and training was concentrated on the picked battle patrols in each unit, the shortcomings of the policy being accepted.

25. Carriers.

Carrier pls, apart from the MG secs, have been used almost exclusively for com purposes. The crews have been used largely for portage, for which there is always a requirement in the bn when opposition is stiff, whatever the nature of the country. Coy carriers have been quite invaluable for bringing up a small com reserve, extra tools, spare wireless batteries etc, as soon as an attack has succeeded.

26. Pls.

(a) Jeeps and trailers are not only invaluable, but essential, for the com of bns in this hilly, very ineffectively tracked country.

(b) Two Jeeps for the evacuation of bns are required in the bn.

(c) In this mobile battle, there are occasions when a com must himself go fwd irrespective of the scale of enemy fire being brought down. For this he needs something more heavily armed, and with a better cross-country performance than the light recon car now allotted. In addition a veh that can carry an additional wireless set and possibly rope of sp type is sometimes needed. The money is suggested as a practical veh for this purpose.

(d) A veh fitted with a winch is a definite requirement in a bn. It becomes especially necessary in wet weather in hilly country with bad roads.

(e) A veh fitted with a winch is a definite requirement in a bn. It becomes especially necessary in wet weather in hilly country with bad roads.

27. Medical.

The com to recon stretcher bearers were higher proportionately than in any other part of a bn. A large res must be trained.

Evacuation from fwd coys by Jeeps was often undertaken, under com. shell fire being accepted as a fair risk.

(b) Two Jeeps for the evacuation of cars are required in the bn.

(c) In this mobile battle, there are occasions when a side road must himself go and irrespective of the scale of enemy fire being brought down. For this he needs something more heavily armed, and with a better cross-country performance than the light recon car now allotted. In addition a veh that can carry an additional wireless set and possibly rope of ap area is sometimes needed. The Honey is suggested as a practical veh for this purpose.

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Ref.

28. Bty and to fire.

.. higher degree of training of my units and to units might well lead to more effective use in the trench on this level. There is a tendency to call for an "uncle" target from the Div arty on an area that is holding up the inf. This takes time, and there may be a degree of inaccuracy. It is suggested that a quicker method, giving more accurate results, is for the tp, after careful ranging, to put down, say, 10 mis gunfire (or less if the whole bty were firing). .. very high proportion of these shells would fall right in the target area.

29. A tk.

(a) A bty of M.10s have been continuously in use of 7 arm. fire, and not with inf bacs. As, however, inf and armour have almost invariably been used together, M.10s have, in fact, been up when required.

(b) The enemy's reluctance to use the at close quarters, the presence of our own armour, and the difficulties of road movement, have led inf units to give a tk gun a comparatively low priority in moving fwd.

30. Co-ordination of D.F. tasks.

There has been a tendency to arrange too large a number of DF tasks. In this type of op, these cannot at first be co-ordinated by inf bde comd and the CPA, and regt comd must do this on the bde front. Cases occurred, for instance, of neighbouring bns both arranging a DF on the inter-bn boundary within 400 yds of each other. These could have been adjusted so that only one DF task was necessary.

31. Shelling.

.. Again it was found that it has to be arranged here that the flanking unit or sub-unit must supply the shelling. The men being actually shelled cannot respond.

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31. Shellfire.

Again it was found that it has to be drummed home that the flanking unit or sub-unit must supply the shellfire. The men being actually shelled cannot reasonably be expected to do so.

32. Upper register.

Upper register shooting has not been used in these ops by this Div, as the time and work involved have not been considered to be justified.

M.M.S. En.

33. Allotment of mortar Coy.

- (a) In the attack, the mortar Coy was centralized when possible, and then stepped up, perhaps two pls at a time. On the other hand, one or two pls have sometimes been allotted in support of a bde.

(b) Difficulties have been experienced with the "half-coy" (two pls). In the group not commanded by the Coy Cdr, the senior mortar officer must command, which leaves a gap in command of one pl. In addition, a mortar officer cannot be used both as L.O. of bde or bn HQ, and as an O.P. officer. It is thought that the provision of two extra officers in the Coy, together with tyt and comms, is necessary.

(c) The 15 cwt and trailer is not a suitable veh for the carriage of the mortar. In this country, cases of loaded trucks invariably occurred while night driving, and difficulty was, of course, experienced in getting off the road.

(d) It has been found difficult to get the mortars far enough up soon after an attack, to deal with wadis and valleys beyond our FDLs, owing to enemy shelling. When sited in the area of the start line they have often been too far back to bring down defensive fire beyond the objective.

JP/xx.

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which leaves a lot in cold of one pl. In addition, a mortar off cannot be used both as L.O. at bid or on 40, and as on O.P. off. It is thought that the provision of two extra off in the off, together with that and comm, is necessary.

(c) The 15 owl and trailer is not a suitable van for the carriage of the mortar. In this country, cases of bogged tracks invariably occurred while night driving, and difficulty was, of course, experienced in getting off the road.

(d) It has been found difficult to get the mortars far enough up soon after an attack, to deal with walls and valleys beyond our HDIs, owing to enemy shelling. When sited in the area of the start line they have often been too far back to bring down defensive fire beyond the objective.

JB/rr.

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1. Example.

The object of the following notes is to summarize, from the point of view of training, the experiences of 4 (Br) Inf Div in its fighting adv from LAKE TRACHUNG to the PLOMONT area, which took place between 21 June 44 and 11 Aug 44. They are in no way exhaustive, nor in many cases the product of original thought, but old doctrine is only repeated where it is felt that emphasis and practical illustration is necessary.

The following authorities within the div have been consulted.

Div Comd.

G.2 (Ops)

C.R.A.

O.C. 225 Fd Coy Bn.

Comd 10 Inf Bde.

O.C. 2 D.C. L.I.

O.C. 2 S.M. L.I.

O.C. 4 Recon Regt.

O.C. 2 M.F. (S. Bn.)

2. Composition of the Div.

Under comd were:-

- (a) 1 Can Am. Bde, relieved for the last three weeks by 25 Army Tpk Bn.
- (b) 78 Med Regt RA (for most of the period).

2 Oct 44

SECRET

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and 14 Aug 44. They are in no way exhaustive, nor in many cases the product of original thought, but old doctrine is only repeated where it is felt that emphasis and practical illustration is necessary.

The following authorities within the div have been consulted.

Div Comd.
G-2 (C&I)
C.R.
O.C. 225 Pz Coy AB.
Comd 10 Inf Bde.
O.C. 2 D.C.L.I.
O.C. 2 SSM L.I.
O.C. 4 Recce Regt.
O.C. 2 N.F. (S. En,

2. Composition of the Div.

Under comd were:-

- (a) 1 Cdn Armd Bde, relieved for the last three weeks by 25 Army Pk Bde.
- (b) 70 Mcd Regt RA (for most of the period).

In support was:

6 AGPs (for most of the period).

3. Topography.

The country between L. TRASIMENO and PERUSIANO was split up into a series of sharp parallel ridges, averaging about 1,000 ft in height. Between VIANO and PERUSIANO the ground was flat or undulating, and was largely covered with corn crops three to four ft high. From FOLIANO the ground rose, linking up with the high ground SOUTH of AREZZO. Thenceforward the country was mountainous, intersected by very deep ravines, and affording some cover from scrub. No water obstacles were encountered.

4. Opposition.

The adv was strongly opposed, and enemy troops were usually from "crack" formations e.g. 1 Para Div. Opposition consisted of a series of defended posts, not exceeding one bn in strength, supported by mortars, and, on occasion, by arty. Demolitions were frequent, and roads and tracks were mined; bridges were usually blown, or prepared for demolition, often by large shells packed with 500 or similar HE, and surmounted by a buried pressure board; but other booby traps and minefields in general were rare. Owing to the speed of the adv, the enemy was on several occasions prevented from detonating prepared charges.

5. Method of advance.

The div advanced on as broad a front as the nature of the country allowed, usually not more than six miles. Two bdes were fwd most of the time, generally each with two bns up. Once for a short period all three bdes were committed. The recon must not be pushed fwd owing to the poor quality of the roads, and the frequency of demolitions, and it was normally employed for flank protection.

the ground rose, linking up the country was mountainous, intersected by very deep ravines, and affording some cover from snouts. No water obstacles were encountered.

4. Opposition.

The adv was strongly opposed, and enemy troops were usually in "barricade" formations O.S. 1 Para. Div. Opposition consisted of a series of defended posts, not exceeding one km in strength, supported by mortars, and, on occasion, by arty. Demolitions were frequent, and roads and tracks were mined; bridges were usually blown, or prepared for demolition, often by large shells packed with SO or similar HE, and surmounted by a buried pressure board; but other booty traps and minefields in general were rare.

Owing to the speed of the adv, the enemy was on several occasions prevented from detonating prepared charges.

5. Method of advance.

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The Div advanced on as broad a front as the nature of the country allowed, usually not more than six miles. Two sides were fwd most of the time, generally each with two cols up. Once for a short period all three cols were committed. The recess post could not be pushed fwd owing to the poor quality of the roads, and the frequency of demolitions, and it was normally employed for flank protection.

Edos averaged ten days in the line and five out.

SECTION I

ORGANIZATION AND DISPOSITION

In a fighting adv of this type, the essentials of success are:-

1. Proper Direction.

It is the responsibility of a comd to direct components of his forces onto the ground which will be required to give tactical advantage if a battle has to be fought.

2. Proper Armament.

A bde is normally consisted of:-

As in bde
One arm regt
One fd regt RA
One fd coy RE
A tk - one tp 17 prs: one tp M.10s only.
One fd bty S.F.
One MG coy
One half-coy 4.2" mortars ++
One fd amb.

++ NOTE. The organization of the 4.2" mortar coy is described in Section 5. (The Support Bn)

PA regts and fd coys operated almost invariably in op of their affiliated bde and HQ under comd. A tk arty consisted of one tk bty less two 6 pr tps, plus one tp of M.10s only. The whole workshop org was invariably centralised under CDEB.

Any components of such a sq must be given only such road space as, in the opinion of the comd, it will earn.

3. Initiative of Junior Comds.

4. Proper Traffic Organisation.

(a) A div TC unit consisting of 5 oftrs and 56 ORs was formed from the 1st regt. This provided a Route Regulating HQ which was always located at

2. Proper Grouping.

A table is usually consisted of:

- an int. bco
- One 3rd regt
- One 4th regt RA
- One 1st coy RE
- A TR - one tp 17 pres: one tp 1.10s only.
- One 1st bty B.P.
- One 1st coy
- One 1st coy 4.2" mortars ++
- One 1st sub.

++ NOTE. The organization of the 4.2" mortar coy is described

in Section 5. (The Support Bn)

26 regts and 1d coys operated almost invariably in twos of those affiliated bases and NOT under comd. A th arty consisted of one 2 th bty less two 6 pr tps, plus one tp of 1.10s only. The whole workshop org was invariably centralized under CTRP.

Any components of such a group must be given only such road space as, in the opinion of the comd, it will earn.

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3. Initiation of Major Units.

4. Proper Traffic Organization.

(a) A div TC unit consisting of 5 officers and 56 ORs was formed from the 1st regt. This provided a Route Regulating HQ which was always located at Main Div HQ, and 4 Tps each of whom had 22 met comms with Route Regulating HQ. The role of this TC unit was to provide Div HQ with information on the state of road movement within the div at any given moment, control traffic at diversions and, supplemented by Div, to control all traffic in the Divisional area, in rear of bco areas. The Div TC Unit was controlled by "G" Branch.

(c) In addition each int bus maintained one up consisting of 4 or 5 and 9 ORs. These normally remained with their bus until required by bus for P.O. in the bus area.

(e) Two command rules were enforced:-

- (i) Vans will never halt on the road.
- (ii) All movement on roads within the areas will be controlled by bus.

All movement in rear of bus areas within the Div boundaries will be controlled by Div HQ (G).

(d) In order to ensure as far as possible that convoys did not halt on the road, no unit or sub-unit, except the leading bn, was allowed on the road until it had a recommended harbour area ready to receive it at its destination. Port bases were responsible for organizing the passage of harbour areas as close as possible behind the leading bus. This passage party normally consisted of a reg from the HQ, RE and P.O. It always included a rep of the affiliated CC reg whose duty it was to see which harbour areas were also suitable as gun areas. P.O. were responsible for working harbour areas.

(e) For moves in the area in which movement was controlled by Div HQ, convoys of 25 or more vehicles or more required block timings from Div HQ. Smaller convoys, (except the, kv and med arty) were fed on to the roads at large intervals without ref to Div HQ.

(f) In order to reduce congestion as far as possible, the movement of single the, kv or med guns on roads controlled by Div HQ also required a block timing from Div HQ. Normally the move of single the was not permitted. If the broke down they were pulled clear of the road and remained there until three or more were ready to move on the same road when a block timing would be given them.

Normally kv and med guns were only moved by bye or tps.

(g) Dust notices, limiting the speed of traffic to 5 or 10 m.p.h.

will be controlled by Div HQ (2).

(d) In order to ensure, as far as possible, that convoys did not halt on the road, no unit or sub-unit, except the leading one, was allowed on the road until it had a recommended harbour area ready to receive it at its destination. Div HQs were responsible for organizing the success of harbour areas as close as possible behind the leading ones. This stage party normally consisted of a rep from HQ, DE and GPO. It always included a rep of the affiliated IN regt whose duty it was to say which harbour moved next also suitable as gun areas. It was responsible for leading harbour moves.

(e) For moves in the area in which movement was controlled by Div HQ, convoys of 25 vehicles or more required block timings from Div HQ. Smaller convoys, (except this, HQ and med arty) were fed on to the roads at large intervals without ref to Div HQ.

(f) In order to reduce congestion as far as possible, the movement of single tks, by or med guns on roads controlled by Div HQ also required a block timing from Div HQ. Normally the move of single tks was not permitted.

If the broke down they were pulled clear of the road and remained there until three or more were ready to move on the same road when a block timing would be given them. Normally by and med guns were only moved by tlys or ops.

(g) Dust notices, limiting the speed of traffic to 5 or 10 m.p.h. were put out by the leading one, which also withdrew them, since the need for them did not exist for blues following up.

(h) The leading one to an axis of 100 v.p.h. was regarded as a maximum. 60 to 80 v.p.h. was more normal.

5. Positioning of Div.

(a) It is considered that a T.O. HQ is unnecessary for a Div. Comd. A comd. is likely to get better results if he keeps his HQ as far as possible together and controls the battle from there. He can then go out to a view point, or visit his subordinate comds, and, provided he has a wireless set with him, can still keep control of the battle.

(b) Road conditions sometimes make a T.O. HQ for the HQ, but staff efficiency tends to be affected if these T.O. HQ's are maintained for a long time. Div. comds should always return to their main HQ whenever possible,

(c) A comd. must control the battle from a good view point. This probably means establishing a T.O. HQ in most cases. But the HQ should only be moved from one good view point to another.

(d) A Div. HQ requires a maximum of two hrs notice to move. Even though a move may be expected well in adv, no longer notice than this should be given; otherwise packing up will start too early and efficiency will be impaired. There is, further, always the possibility that the move will be cancelled.

(e) The positioning of Div. HQ was generally dictated by the road situation. With two lanes and in a country where lateral roads were few and far between, Div. HQ was on one of the axes and near a lateral road. It was not normally moved fwd until it could get near another lateral road. The move of Div. HQ was given a low priority for road space.

(f) Comms. The proper working of coms is essential for the passing of the information required for sound direction and rapid regrouping.

6. Reporting of Locations.

CODEN is considered unsatisfactory, and code names were used. The latter should be easy for all ranks to memorise and pronounce. A simple system is to change the initial letter with each successive northings e.g. between northings 70 and 71, all code names will

This probably means establishing the HQ in most cases. In the HQ should only be moved from one view point to another.

(1) A Div HQ requires a maximum of two hrs notice to move. Even though a move may be expected well in adv, no longer notice than this should be given, otherwise packing up will start too early and efficiency will be impaired. There is, further, always the possibility that the move will be cancelled.

(2) The positioning of Div HQ was generally dictated by the road situation. With the bases fixed in a country where lateral roads were few and far between, Div HQ was on one of the axes and near a lateral road. It was not normally moved until it could get near another lateral road. The move of Div HQ was given a low priority for road space.

(3) Orders. The proper working of COMUS is essential for the passing of the information required for sound direction and rapid regrouping.

6. Reporting of Locations.

CODEN is considered unsatisfactory, and code names were used. The latter should be easy for all ranks to memorise and pronounce. A simple system is to change the initial letter with each successive northings e.g. between northings 70 and 71, all code names will start with A; between 71 and 72 with B, etc.

7. Counter-Communication Organization.

In addition to the normal counter-terror org., an inf bn is starting one counter-terror GP, consisting of one sgt, one other HQO, and two wireless operators. This is to be counter-terror, and to be in command with the HQO by No. 21 wireless net and telephone.

8. A-1k File (Inf)

Given the fact that the inf was moving in independent the country, and possessed a great numerical superiority in number over the enemy, the number of A-1k guns in inf line was reduced to two. The primer-movers and personnel of the remainder moved, however, been retained.

9. Close Support Elements.

Excellent results were obtained through normal air channels. It must be remembered that a vague indication of targets is of little value to pilots, who require a six or eight figure map ref.

10. Evading of Opposition.

Although this is theoretically desirable, it is, in fact, generally impossible, as opposition is almost always sited behind or overlooking main road, and must be forced out.

It is seldom worth while to launch an attack in less than an strength.

11. Reduction of Weight.

It will sometimes be necessary for men to undertake very arduous climbs. In such cases, they must not be encumbered with more than a bare minimum of kit. A mess tin with 24 hrs hard rations and a full water bottle wrapped up in a gas bag, will often be sufficient.

12. Combined Use of Carrier and Pioneer Pls.

One on successfully used the carrier pl, loss two sacs, and two sacs of assault pioneers for opening up flank routes.

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5. Crossed Bombing.

Excellent results were obtained through normal air channels. It must be remembered that a vague indication of targets is of little value to pilots, who require a fix or clear fixings map.

10. Discussion of Operation.

Although this is theoretically desirable, it is, in fact, generally impossible, as operation is almost always sited behind or overlooking main

cases, and must be forced out

It is seldom worth while to launch an attack in less than an strength.

11. Reduction of Weight.

It will sometimes be necessary for men to undertake very arduous

climbs. In such cases, they must not be encumbered with more than a few minutes of kit. A mess tin with 24 hrs hard rations and a full water bottle wrapped up in a gun case, will often be sufficient.

12. Combined Use of Carrier and Pioneer P13.

One in successfully used the carrier p1, less two sacs, and two sacs of assault pioneers for opening up flank routes.

13. Plat.

Plat boys constitute a very forward load, and the number of Plats taken on an operation should be limited to expected requirements.

In use in, the situation was that the 2nd mortar and one 21.0 mm. be carried by personnel of the company. The personnel, 21.0 mm. and 21.0 mm. were carried in the company's company.

CONCLUSION by the Command.

It is very important to know 2nd mortar behind on the company's mortar. On occasions it may be necessary to leave the 2nd mortar belonging to company HQ but not use it when returning to the.

14. Comments.

(a) In fluid use a 2.0. net was used in order to control the net, and to be in a position to see the ground and appreciate the situation. It is useful in view with more protection than a standard especially against mines.

The Rubber and 2.0. If it is strongly recommended.

(b) As stated above it is normally necessary for a net to be set in the net. The net. This means that it is out of direct contact with the net. The net is set in the net. It is suggested, however, that each net should be linked with one extra 22 set for the net. One frequency will be on the net to set net and the flick frequency on the net. If the net should be linked to the net and the net should be set by calling up the net of the net and telling him to set the net on the net set net to flick to the net. This has the advantage that no extra personnel or net are required. The net can also be easily carried in a net and a net.

15. "0" System.

In battle, the "0" system only be called for when absolutely necessary, and the risk involved in offering a target consisting of the "0" system of the net should always be borne in mind. A considerable degree of control can, and should, be exercised by wireless.

17. Immediate Response to Fire.

A comment of common sense was that too little A.L. was used. This he ascribed to the tendency to forget the basic rule that enemy fire, whether pin-pointed or not, must be answered by fire. Casualties may not be inflicted, but the deterrent effect is always considerable.

18. Reserve of Rations.

Two days' emergency reserve of rations, unopened, was generally carried in 15 cut trucks by bus. The day was carried in either "P" or "L" Loh, one day in "H" Loh.

19. Air Photographs.

Air photographs, on an "uncontrolled" grid, were issued to bus, and proved invaluable. One set only per bn was generally available, and it is suggested that this scale should be increased to one set per coy.

20. Line.

Line was laid on all occasions when the battle paused sufficiently long enough to enable it to be done. This reinforcement of wireline course is always worth while, even for a very short time.

SECTION II. P.A.

1. Composition of P.A. Cos.

The following party units were normally allotted to each P.A. cos:-

One PI post

One Coy S.P. Cos (supporting the main Post)

.. 12 Coy and one to 1.40s.

In addition each P.A. had a call on net line then on and 8ty (5.5"), a row of which was with the P.A. Post.

These lived with, and were trained by, the engineers, and proved a very useful addition for pioneer work.

3. Repairs to Guns.

The repair shops were centralized under the CE, and controlled by his RT. A proper priority in repairs was thus ensured.

4 T.M. guns were held by RA to replace guns undergoing repair.

4. Gun Expenditure.

Scarcity of gun varied considerably. For a fortnight, 12 guns were limited to 25 r.p.m., while at other times the scale was increased to 50 or 60 r.p.m.

300 r.p.m. were always available within 24 hrs, but could not be expended in toto, as further re-supply took 48 hrs.

5. Command Posts.

When arty was not very active, one tp was augmented by two guns of another tp (making six guns in all) and controlled by the tp command post.

As a result, the Bty C.P. and half a tp were rested during these periods.

It also proved to be an effective method of reducing a rest's tp to about 100 vehs without reducing the number of shells delivered on the target.

6. Med arty.

When the med rest was used, 12 5.5" guns were in all cases fwd.

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No particular emphasis is laid on the merits of keeping 5.5" guns fwd rather than 4.5" guns; but it was found, in fact, that the additional range of the 4.5" guns would seldom have been necessary, while the heavier shells of the 5.5" guns were extremely effective.

7. 1:25,000 Map Sheets.

limited to 25 r.p.m., while at other times the scale was increased to 50 or 60 r.p.m.

500 r.p.m. were always available within 24 hrs, but could not be extended in toto, as further resupply took 48 hrs.

5. Command Posts.

When arty was not very active, the tp was augmented by two guns of another tp (keeping six guns in all) and controlled by the tp command post.

As a result, the Bty C.S. and half a tp were rested during these periods.

It also proved to be an effective method of reducing a regt's total to about 100 vehs without reducing the number of shells delivered on the target.

6. Med arty.

When the med regt was used, the 5.5" guns were in all cases fwd.

No particular emphasis is laid on the merits of keeping 5.5" guns fwd rather than 4.5" guns; but it was found, in fact, that the additional range of the 4.5" guns would seldom have been necessary, while the heavier shells of the 5.5" guns were extremely effective.

7. 1: 25,000 Mm Shells.

The 1: 25,000 mm shells were found to be extremely accurate. It is considered that a shoot, fired one morning after registration the previous evening with

different meteor, will not be so effective as an unregistered shoot fired off the 1: 25,000 shell with existing meteor.

3. Role in Ground Role.

Before this new job in a ground role; but the value of such efforts is considered to be largely negated by the difficulty and risk of getting such lightly-armed guns into a zone from which they can fire direct.

4. Extent of D.F. Fire.

DF tanks were laid down on a very considerable scale, and it is estimated that any tank surviving on its objective will find a protective screen of D.F. around it, 1,700 yds in extent.

SECTION III - R.E.

1. Follow-up of Ground RE or RE.

In order to make good diversions before the bulk of heavy traffic comes on to them, Corps RE or JCRF should follow up Div RE very closely.

2. Transport.

(a) Tipper Lorries.

Work was at times slowed down by a lack of Tipper lorries. It is suggested that 12 Tipper lorries should be permanently attached to Rd Park Coys during ops from RE.

(b) Div PASC Lorries.

12 lorries were allotted permanently for the carriage of RE stores. This is the minimum necessary. It is considered to be the desirable number.

3. Mechanical Dept.

(a) Sherman-dozer were used, though not extensively, owing to a high percentage of casualties in the early stages of ops.

It is felt that the Sherman-dozer should be regarded entirely as an RE implement, and manned by RE rather than its personnel.

SECTION III - A.E.

1. Follow-up of Camp RE or CAMP.

In order to make these divisions before the bulk of heavy traffic comes on to them, Camp RE or CAMP should follow up Div RE very closely.

2. Transport.(a) Heavy Lorries.

Work was at times slowed down by a lack of tipper lorries. It is suggested that 12 tipper lorries should be permanently attached to 13 park cays during ops from P.30.

(b) Day A-30 Lorries.

12 lorries were allotted permanently for the carriage of RE stores.

This is the minimum necessary. 10 is considered to be the desirable number.

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3. Machinegun Bgt.

(a) Sherman-dozer were used, though not extensively, owing to a high percentage of casualties in the early stages of ops.

It is felt that the Sherman-dozer should be regarded entirely as an RE implement, and manned by RE rather than by personnel.

(b) REME dozers. With whole-hearted co-operation of REE, their dozers were fitted with blades and frequently loaned to RE with invaluable results.

4. White Scout Cars.

White Scout cars were found to be extremely useful. The W.B. of these cars in a 10 coy is seven, and it is considered that an extra one per pl, for use as a command van and for setting stores fwd, would be of great value.

If these additional cars could be supplied with one-ton trailers, one 3-tonner per 10 coy could be dispensed with.

5. Decentralisation.

10 coy were normally decentralised in an of leading bdes.

It is thought that complete centralisation under the CBE may involve delay in the execution of work.

With two coys (sometimes one) in sq, and one coy (sometimes two) directly under the CBE, the best results were obtained.

6. Comms.

The No. 21 wireless set was found on several occasions to have too short a range to work over the wide distances involved, and these sets should be replaced by No 22 sets.

The W.B. of sets in a 10 coy is five, distributed as under:-

Control set.	1.
To pls	3.
Coy comd	1.

It is felt that an additional set with the IO at Pdc HQ is essential.

7. Dingos.

The NUMBER 3-str Dingo is more suitable than the RALLIER 2-str, in that there is room for a wireless operator.

It is argued that a driver-operator cannot satisfactorily carry out the dual role of driving and operating the set; while the offer, if he is bound to the set, cannot carry out his primary duty of observation.

It is thought that complete centralization under the CRE may involve delay in the execution of work.

With two coys (sometimes one) in op, and one coy (sometimes two) directly under the CRE, the best results were obtained.

6. Comms.

The No. 21 wireless set was found on several occasions to have too short a range to work over the wide distances involved, and these sets should be replaced by No 22 sets.

The W.D. of sets in a Coy is five, distributed as under:-

- | | |
|--------------|----|
| Central set. | 1. |
| To pln | 3. |
| Coy com | 1. |

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It is felt that an additional set with the LO at Pde HQ is essential.

7. Dingos.

The MILLER 3-seater Dingo is more suitable than the MILLER 2-seater, in that there is room for a wireless operator.

It is argued that a driver-operator cannot satisfactorily carry out the dual role of driving and operating the set; while the offr, if he is bound to the set, cannot carry out his primary duty of observation.

8. Concentration of Civilians.

ITALIAN civilians were very helpful in repairing demolitions under RE, and giving information regarding the enemy, mines etc. In some cases they had filled up craters before the arrival of the RE.

Lack of sufficient interpreters neutralizes the value of some of the information that could be obtained from civilian sources, and it is suggested that more be obtained. Another recurrent problem is that co-operative civilians are entitled to some measure of consideration, and an allowance of medical supplies (particularly bandages and first-aid dressings), food and cigarettes would be a great encouragement to them.

SECTION IV - THE RECON REPT.

This section is divided into two parts, (A) giving tactical and general points, and (B) comments on, and suggestions regarding eqpt.

A. Tactical and General Points.

1. Org of Sen.

The sen was divided into seven sub-units, the carriers and the armad cars within a to being regarded as two separate sub-units. This gave tactical elasticity; but it was found necessary for the armad car and carrier "troops" to link up at night, in order to rest the men. A car "troop" which was entirely on its own for the nights was almost exhausted when relieved.

2. Sand-tracks.

Vehs are apt to be held up too long by minor obstacles, such as ditches just too wide to be cleared by a carrier. An allotment of sand-tracks or similar (and preferably lighter) eqpt might overcome this difficulty.

3. Bulldozers.

A bulldozer should always be within easy call to deal with demolitions.

4. Enemy O.P.s.

It was found that the enemy did NOT use the same house as an OP.

This section is divided into two parts. (A) giving tactical and general points, and (B) comments on, and suggestions regarding eqpt.

4. Tactical and General Points.

1. Org. of 3rd.

The 3rd was divided into seven sub-units, the carriers and the arm cars within a, to being regarded as two separate sub-units. This gave tactical elasticity; but it was found necessary for the 3rd car and carrier "troops" to link up at night, in order to rest the men. A car "troop" which was entirely on its own for two nights was almost exhausted when relieved.

2. Sand-tracks.

Vehs are apt to be held up too long by minor obstacles, such as ditches just too wide to be cleared by a carrier. An allotment of sand-tracks or skidder (and preferably lighter) eqpt might overcome this difficulty.

3. Bulldozers.

A bulldozer should always be within easy call to deal with demolitions.

4. Enemy C.P.s.

It was found that the enemy did NOT use the same house as an OP, unprotected, for two days running. On the second day, such OPs were always protected by slit trenches dug around the house, and usually manned by four or five men armed with SCHEISSERS and a SEMI-A.U. Patrols were never fired on from the house itself.

5. Destruction of Enemy Vehs.

It was found necessary to "brew up" enemy vehs in order to put them out of action. "Brewing up" was not always sufficient.

In the case, 12 rds of AP and two belts of 8mm were fired through an enemy half-track veh. It was inspected five minutes later, and found to be riddled with bullets, with the radiator smashed and water pouring out. Five hours later, the enemy removed it under cover of darkness.

6. Ambulance Vehs.

White Scout cars were tried out as ambulance vehs, and were found, over rough or hilly country, to have an inferior performance to carriers.

7. Maps.

The goal of maps provided was found inadequate. It is considered that 50 is the minimum on which a sqn can operate with full efficiency.

8. Assault Tp.

When wheels are held up, as often happens, carriers must lead. At such times, a sec of the assault tp under command of the leading tp comd would be useful for covering the head of a crater while a diversion is being made by personnel of the carrier tp, or by a ballistics, if available.

9. Enemy Mines.

It was found in some cases that the earth over buried mines had been marked by the enemy with indentations similar to those that a carrier track would make.

10. Holding of Ground.

A recon sqn, unsupported by inf, will quickly become exhausted if called upon to hold all the ground by right that it has taken by day. It should often be sufficient to retain tactical features capable of being held by relatively

White Scout cars were tried out in subduence vans, and were found, over rough or hilly country, to have an inferior performance to carriers.

7. Maps.

The scale of maps provided was found inadequate. It is considered that 50 is the minimum on which a gun can operate with full efficiency.

8. Assault Tro.

When wheels are held up, as often happens, carriers must load. At such times, a sec of the assault to under cover of the landing to cover would be useful for covering the head of a crater while a diversion is being made by personnel of the carrier to, or by a bulldozer, if available.

9. Many Mines.

It was found in some cases that the earth over buried mines had been marked by the enemy with indentations similar to those that a carrier track would make.

10. Holding of Ground.

A recon sec, unsupported by inf, will quickly become exhausted if called upon to hold all the ground by night that it has taken by day. It should often be sufficient to retain tactical features capable of being held by relatively small forces.

11. P.E. Assistance.

Whenever possible, an RE officer should be attached in an advisory capacity to secs in the div.

12. Int. for R. POCs.

R. POCs, when attached, should if possible be sent in an arm car; otherwise they will not have to tie to keep up with the leading ABC tps, as it is desirable for them to do.

13. L.I.D.

It is suggested that the I.D. should move near main recon HQ, and not with "1." unit. Recovery of vans is often safe shortly after their "ditching" or disablement; but several days sometimes elapsed before I.D. could get fuel, owing to congestion of traffic and the bad quality of the roads.

14. Salvaging up of Retirees.

Considerable difficulty was experienced owing to the issue of large bulk ration tins to small units, e.g. the 7 lb tin of bully beef, the 14 lb tin of jam etc. It is thought that such tins should be broken down before issue to recon units.

B. Reinforcement.

1. 3-Tonnors.

At present there is only one petrol 3-tonner per sqn. This is considered inadequate, and an additional one per sqn is required.

2. ACC Cooks' 3-Tonnors.

These are now being tried out by some tank and arm car regts, with a view to being made a general issue. One per recon sqn would be an advantage. Failing this, an issue of No. 3 cookers on a scale of one per two vehs would be appreciated.

3. SCOUTS.

One additional SCOUT per recon regt is required.

14. Splitting up of Rations.

Considerable difficulty was experienced owing to the issue of large bulk ration tins to small units, e.g. the 7 lb tin of bully beef, the 14 lb tin of jam etc. It is thought that such tins should be broken down before issue to recon units.

1. Equipment.

1. J-Tenners.

At present there is only one petrol J-tenner per sqn. This is considered inadequate, and an additional one per sqn is required.

2. 400 Cokes' J-Tenners.

These are now being tried out by some th and arml car units, with a view to being made a general issue. One per recon sqn would be an advantage. Failing this, an issue of No.3 cookers on a scale of one per two vchls would be appreciated.

3. SCIMITERS.

One additional SCIMITER per recon regt is required.

4. Polish Mine Detectors.

It is considered that the minimal scale of these should be seven per sqn.

5. S.P. Post.

These recon regts that use R. gun drill with their S.P. btys lack cline sights, dial sights, directors arty, and rangefinders. These should be issued for all guns.

6. Types of M.A. Car.

Both types of car (the DUFFLER and the HUMBER Mk IV) suffer from lack of manoeuvrability. The same applies to the HUMBER Mk IV, and it is suggested that the substitution of the DUFFLER or FORD Mingo, or the HUMBER scout car would be an improvement. HUMBER scout cars fitted with belly armour have been seen in the NORTH IRISH HORSE; similarly GREYHOUNDS armoured between the front wheels have been seen in 56 Recon Regt. The fitting of such armour by base workshops before issue would be a great improvement.

7. Comments.

(a) In view of the large number of foot patrols sent out from scout troops, it is suggested that two No. 38 wireless sets per scout troop be provided.

The No. 13 sets from carriers cannot be used for this purpose for two reasons:

(c) the control of the carrier set would be reduced, and (b) the carriers are not always with the cars.

(b) The substitution of a No. 107 listening set in place of the No. 109 at present held would be an improvement.

(c) Four high-powered No. 19 sets are required, for distribution to squad leaders and HQ link. It is not always possible at present to maintain comms over long ranges.

(d) Difficulty has been experienced in obtaining spare batteries to replace those destroyed by enemy action. However, since it is not practicable to charge batteries within hearing of the enemy, a certain reserve is necessary to replace those being charged further back. The following allotment would clear up this situation.

556

For S.P. Coy.

Batteries 6 volt 85 amp	16
Batteries 6 volt 170 amp	8
Charging sets 30 watt	3

For HQ Co.

(c) In view of the large number of foot patrols sent out from about
tps, it is suggested that two No.34 wireless sets per scout tp be provided.

The No.15 sets from carriers cannot be used for this purpose for the reasons:

(a) the control of the carrier set will be reduced, and (b) the carriers
are not always with the cars.

(a) The substitution of a No.107 listening set in place of the No.109
at present held would be an improvement.

(c) Four high-powered No.19 sets are required, for distribution to son
rear links and RMJ and link. It is NOT always possible at present to maintain
even over long ranges.

(d) Difficulty has been experienced in obtaining spare batteries to
replace those destroyed by enemy action. Moreover, since it is not practicable
to charge batteries within hearing of the enemy, a certain reserve is necessary
to replace those being charged further back. The following allotment would
clear up this situation.

For S.P. Hwy.

Batteries 6 volt 65 amp	16
Batteries 6 volt 170 amp	8
Charging sets 30 watt	3

For R.Cs

Batteries 6 volt 170 amp	36
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For use by sons and RMJ.

Charging sets 1260 watt	4
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SECTION V - THE SUPPORT BN.

1. The Mortar Coy.

However the mortar coy is organised if must inevitably be spread out over the Divisional front. This means that the Coy Comd and 2 I.O. have a full time job in administering and generally supervising the coy as a whole. One mortar pl is obviously required at each bde Hq to implement the fire plan, etc. Each pl in action must also have an OP officer in action throughout the 24 hrs. Apart from this, it has been found necessary, especially in the attack, to attach one officer to the attacking bn Hq as an IO. It is obvious from the above that the present number of officers in the mortar coy is insufficient, especially in a desperate fight to be obtained, and without it efficiency suffers. It is suggested, therefore, that the establishment of each pl should be increased by one officer with the necessary tpt and comm.

2. Rever set in the MG Coy.

A need is felt for one more No. 22 wireless set in the MG coy, to be carried in the Coy Comd's jeep and used as a Rever set.

3. Substitution of 15 cwt trucks for carriers in the MG Coy.

It is found that the pl's carrier is not a suitable veh.

A 15 cwt truck would be more satisfactory, both for ease of driving and its ability to carry stores.

4. The mortar coy consisting of 16 x 4.2" mortars was organised for convenience in sq of ftd bdes, into two half-companies, known as the "right half-coy" and the "left half-coy".

Diagram of signals lay-out is given on page 17.

the 24 hrs. report from this, it has been found necessary, especially in the attack, to attach one officer to the attacking HQ as an IO. It is obvious from the above that the present number of officers in the mortar company is insufficient, especially in the present number of officers to be retained, and without it efficiency suffers. It is suggested, therefore, that the establishment of each pl should be increased by one officer with the necessary equipment and means.

2. Mortar set in the 1st Coy.

A need is felt for one more No. 22 wireless set in the 1st Coy, to be carried in the Coy Command's Jeep and used as a Rover set.

3. Substitution of 15 cwt trucks for carriers in the 1st Coy.

It is found that the 1st Coy's carrier is not a suitable veh.

A 15 cwt truck would be more satisfactory, both for ease of driving and its ability to carry stores.

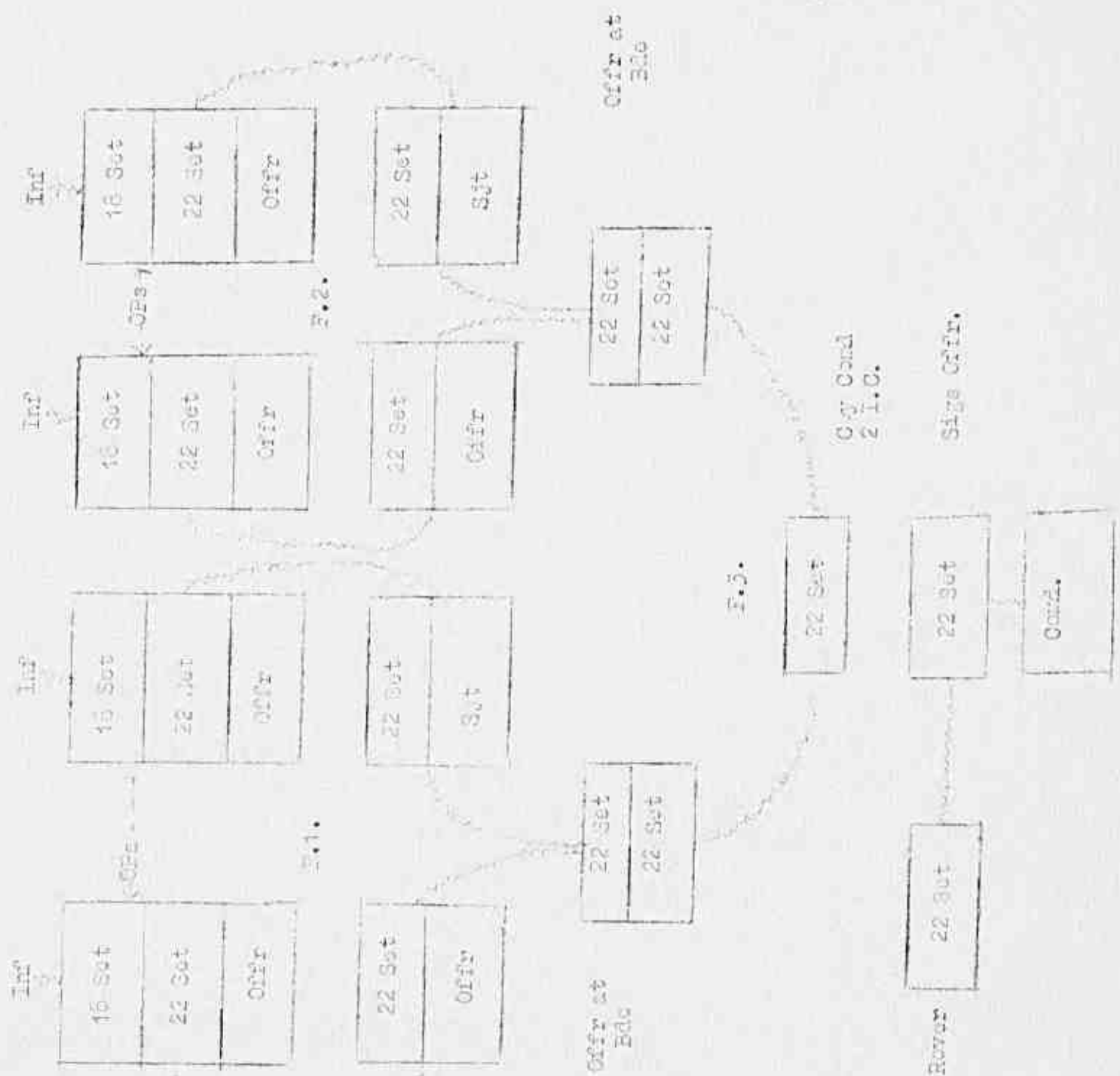
4. The mortar company consisting of 16 x 4.2" mortars was organized for convenience in sp of 1st and 2nd, into two half-companies, known as the "right" half-company and the "left half-company".

Diagram of signals layout is given on page 17.

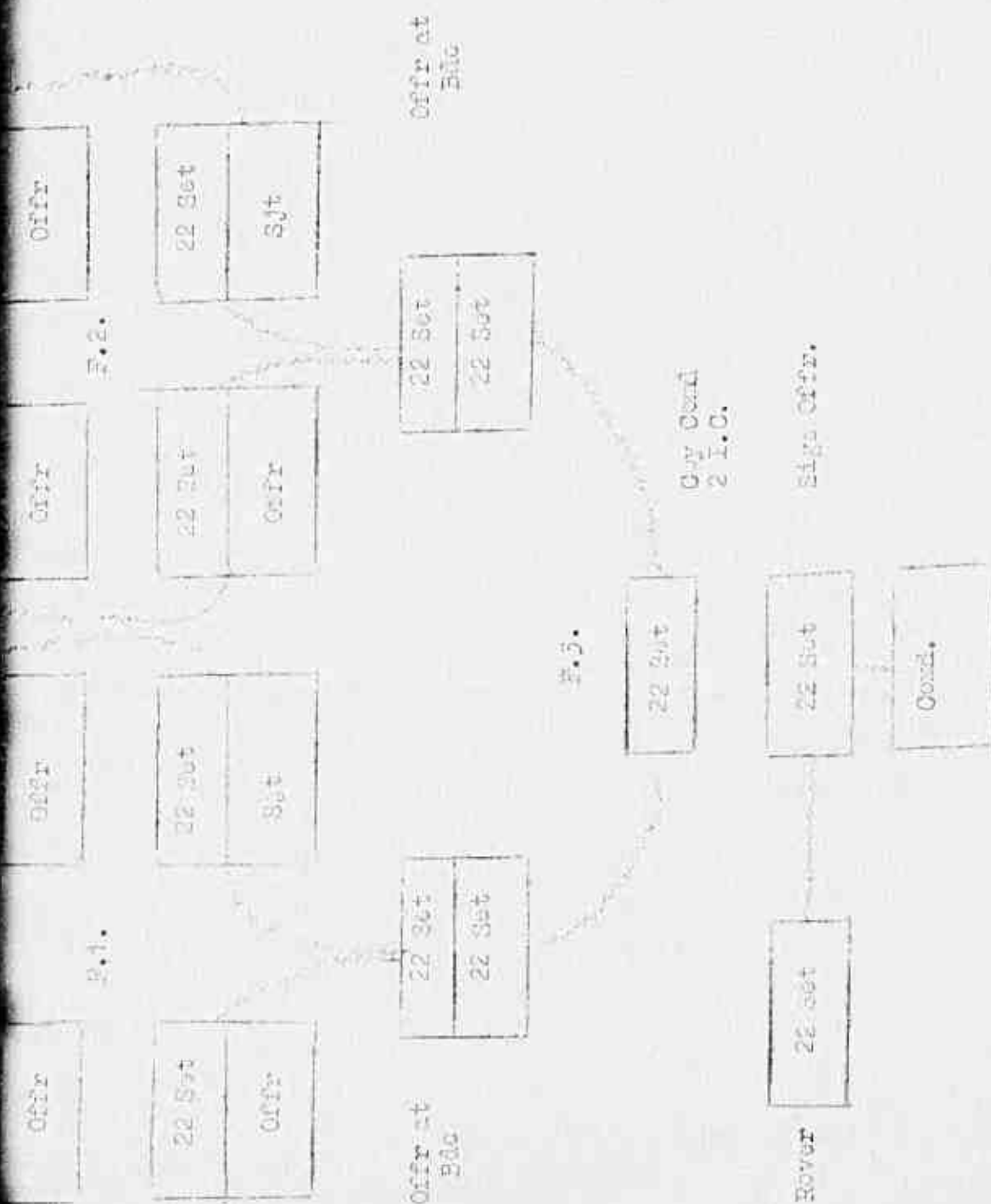
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