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2ND. CORPS FIELD SURVEY COY.

TACTICAL HANDLING
OF
ANTI-TANK REGIMENTS

MILITARY TRAINING PAMPHLET
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TACTICAL HANDLING OF ANTI-TANK REGIMENTS

1. ORGANIZATION

i. The anti-tank regiment, Royal Artillery, is a divisional unit under the command of the Commander, Royal Artillery. It consists of regimental headquarters and four batteries, each of 12 anti-tank guns, *i.e.*, a total of 48.

Batteries are divided into three troops, each of two sections of 2 guns.

The organization is shown diagrammatically in Appendix "A."

ii. Each battery is a self-contained unit with its own administrative resources, and therefore capable of independent employment. Troops, on the other hand, should not be detached except for short periods.

iii. The vehicles on battery headquarters, excluding those for administrative purposes and for camouflage materials, are three 8-cwt. trucks and five motorcycles, three of which are for the orderlies mentioned in (iv) below.

These staff vehicles are for the battery commander's use in deploying his battery, and for establishing liaison with the infantry commander or commanders concerned. The subaltern on battery headquarters will normally be used for this latter purpose.

An 8-cwt. truck is also provided for each troop commander.

iv. The regimental signal section is a unit of the Royal Signals, as in all other artillery regiments. Its means of communication consist of wireless sets and despatch riders. Cable and telephones are not provided since they are not justified by the normal tactical employment of the regiment.

Intercommunication within batteries is by motor cyclist orderlies only.

The total means of intercommunication within the regiment are:—

Regimental headquarters	4.	motorcycle orderlies.
Regimental signal section	6	wireless sets and 4 despatch riders.
4 batteries	Each	3 motorcycle orderlies
		= 12.

2. CHARACTERISTICS

i. The anti-tank regiment is a mobile unit with good cross-country performance. On the road it can move at 30 m.p.h. Across country its pace must depend on the nature of the ground and on the care with which ground reconnaissance is carried out. For all practical purposes its pace across country can be taken as 10 m.p.h.

This mobility enables the anti-tank regiment to keep up with all other arms on the march, except armoured car regiments, and permits of its rapid movement to meet a threat of attack or an emergency.

ii. The gun can be fired from its wheels or from its pedestal. On the pedestal the gun has an all round traverse, but on wheels, with the Mark II Carriage, the arc of fire is limited to 23°. Whilst the gun can therefore be brought into action in case of emergency on wheels, it will normally be fired from the pedestal.

iii. The gun and detachment present a good target in the open. The detachment is protected by a shield frontally, but is vulnerable to flank or reverse fire, and whenever possible all round protection should be provided. Gun pits and trenches for the detachment are large and apt to be distinctive. To avoid detection either from air or ground, guns, pits and trenches must be hidden until it is necessary to open fire. Camouflage netting is provided, but as it limits the traverse of the equipment it may have to be thrown off if a wide arc of fire is required. Camouflage will be supplemented by every other method of concealment available.

Camouflage and concealment must therefore receive full consideration when bringing a gun into action and can be neglected only where the need for speed into action outweighs the need for protection and concealment. Camouflage should be erected before digging is begun.

On the move the gun, tractor and personnel are unprotected and their movement in battle is therefore restricted.

iv. The gun is a direct fire weapon and has an effective range of 2,000 yards, but, while effect will vary with the skill of the detachment, at ranges over 800 yards the proportion of hits to rounds fired will not be great. At ranges under 800 yards the proportion will increase and at 600 yards or less every round should tell.

When the gun opens fire the flash is pronounced and the gun position is liable to be disclosed. In exceptional circumstances, the siting of guns to open fire at long ranges may be justified, but normally guns should be sited to obtain surprise action at the most effective ranges.

v. The trajectory of the shell is comparatively flat. To obtain full value from this characteristic, guns should be sited to use grazing fire whenever possible.

vi. The fire unit is the single gun. Well concealed single guns, each requiring individual attention from the attacker, will be more effective than closely sited sections or troops, guns will therefore normally be sited singly.

vii. One light machine gun is provided for each gun, primarily for anti-aircraft defence, but when the anti-tank gun is in action there are insufficient men to man this gun. Anti-tank guns must therefore always be protected by small arms fire, and in defence will usually be sited in or just behind the infantry localities.

3. TACTICAL EMPLOYMENT IN GENERAL

i. The essence of anti-tank artillery tactics is surprise action from well-concealed positions at effective range.

ii. As the anti-tank gun is a direct fire weapon whose sole task is to give close support to the other arms its tactical handling must be dependent upon the tactics of the other arms. Concentration or dispersal of fire at will under the orders of higher commanders is not possible, and unlike other forms of artillery decentralization of command will be the rule rather than the exception.

iii. In considering the tactical handling of an anti-tank regiment it is insufficient to think only in terms of the anti-tank gun. Protection against armoured fighting vehicles can best be obtained by skilful use of ground, and by co-ordination of anti-tank guns with field artillery, with mines, and with artificial and natural obstacles.

Anti-tank unit and sub-unit commanders must therefore study all forms of anti-tank defence and must be in a position to assist the commander of the formation, to which their unit or sub-unit is allotted in working out his plan of defence against armoured fighting vehicles.

iv. During battle each gun commander must fight his gun on his own initiative; it is the duty of the men in each sub-section to fight that gun to the last man and the last round.

4. DEFENCE

i. As the number of anti-tank guns available will seldom be adequate for all eventualities, the plan of anti-tank defence must include all possible resources and should be made on an area

basis extending back from the forward area and must be linked up with the field artillery. There must be an organized plan covering the divisional reserve line and if any guns are available they should be held in reserve. The areas favourable to armoured fighting vehicle action should thus eventually be covered by a co-ordinated system which includes all forms of anti-tank defence.

ii. When carrying out his reconnaissance and in making his plan the divisional commander will make use of his anti-tank regimental commander as he sees fit. Once the orders are issued, the regimental commander is responsible for liaison with infantry brigadiers and for general co-ordination.

Subordinate infantry commanders will make use of commanders of sub-units allotted to them in a similar manner.

iii. Based on his appreciation of the anti-tank defence requirements of the position, the divisional commander will make an allotment of sub-units to infantry brigadiers, and should clearly indicate the areas he considers most liable to tank attack and his reasons for the allotment made.

Anti-tank artillery will be allotted to covering troops, to the outposts when considered desirable, and to the main position. As there will seldom be sufficient guns to fulfil all the tasks the bulk of the anti-tank artillery will usually be allotted to the forward brigade sectors and the remainder will be employed either in action for the defence of the divisional reserve area or on wheels with the divisional mobile reserve. Sub-units allotted to covering troops and outposts will normally be those required subsequently to hold rear positions. Sub-units for the defence of forward brigade sectors will be placed under the command of the infantry brigadiers who will be responsible for the lay-out of their own sector. Further delegation of responsibility for allotment of tasks and for command may be made to battalion commanders if required. If for any reason a commander wishes to retain control of guns sited in the area of a lower formation or unit he must make this fact quite clear in his orders and must lay down responsibility for the allotment of tasks. Where possible allotment of anti-tank artillery to infantry brigades should be made by batteries but where for any reason this method is unsuitable, single troops may be allotted independently or in addition to a battery.

iv. In making a plan of defence the requirements of all arms will be considered, the dispositions of infantry, anti-tank artillery, machine guns and field artillery being thought out as a whole, priority being given to the most important arm or factor as dictated by the circumstances of each particular case.

v. Guns should be sited in depth primarily to cover the most likely tank approaches. It will also be necessary to protect the fronts, flanks and rear of those localities, which owing to the lie of the ground are liable to neutralization by tanks acting in support of an infantry attack. Guns in the forward battalion sectors will be given fire tasks within or immediately in front of these sectors. Guns in depth should be given penetration tasks on the same principle, but may, in addition, be given tasks of thickening up the fire of the guns in forward areas at ranges up to 1,200 yards. When deciding whether to give the latter tasks the commander responsible must weigh up the chances of detection and neutralization by enemy artillery or machine gun fire against the need for thickening the fire in any given area.

vi. Commanders of sub-units in the divisional mobile reserve must make themselves fully acquainted with the ground in the divisional area, so that when necessary they can act without further reconnaissance other than to locate the extent of enemy penetration.

5. ATTACK

i. Whenever the ground is suitable for tank action, attacking troops are liable to immediate counter-attack by enemy tanks at any period of the attack. Infantry unsupported by tanks is peculiarly vulnerable to such an attack. An attack even if supported by tanks will be at a disadvantage to an enemy tank counter-attack, which will always have the support of the defender's anti-tank guns in position. Support by anti-tank weapons must therefore always be provided by guns pushed forward for the purpose.

ii. Further, the objective or the position reached may be quite unprotected by any form of tank obstacle. It is therefore imperative that anti-tank units should move forward early and that there should be no delay in giving the necessary protection to front and flank when the army tanks withdraw.

iii. The task of the anti-tank artillery in the attack therefore is to provide continuous anti-tank defence to the attacking elements whilst they are in movement and to assist in consolidation of the ground gained.

As these guns cannot fire on the move the method of providing support during the progress of the attack will be by the formation of successive anti-tank lines of defence. Guns moving forward to establish a new line will be covered by guns already in action on a previously occupied line.

The selection of these lines will depend on

- (a) The ground.
- (b) The plan of attack of the arm supported.

The allotment of anti-tank guns to infantry brigades and units will depend on the liability of the attacking elements to tank counter attack which in its turn will depend largely on the ground. Allotment should be made by complete sub-units (batteries or troops) whenever possible. As these guns are close support weapons and as their action is entirely dependent on the plan of attack, and upon the success or otherwise of the operation, guns supporting forward units will normally be placed under command of such units.

When making their plans the commanders of attacking units must give full consideration to the employment of the anti-tank guns supporting them. The selection of the successive bounds of the attack, *i.e.*, the objectives and intermeditae objectives, will often depend on their suitability for tank defence.

iv. Anti-tank guns must be boldly handled, and the time from coming out of action in one position till they are in action in the next reduced to a minimum.

Early reconnaissance of the ground over which they are to move is essential, and is one of the most important duties of sub-unit commanders. Before an attack full use must be made of maps and air photographs, and during the attack forward reconnaissance must be continuous.

v. In the particular case in which infantry have to force a tank obstacle to cover the crossing of the obstacle by army tanks, they are particularly liable to counter-attack which may well be supported by enemy tanks.

As the success of the whole operation will depend on the troops across the obstacle being able to hold their ground the provision of anti-tank defence for them is a matter of the greatest importance.

It will sometimes be possible for a portion of the defence to be provided by guns sited behind the obstacle but arrangements will nearly always have to be made to get some guns across the obstacle in close support of the infantry.

vi. In the attack, as in all operations, a reserve should be held in hand to meet the unexpected.

6. PROTECTION

i. During the advance whenever there is any danger of attack by enemy tanks, some anti-tank artillery should be moved well forward. It may in some circumstances be necessary to make an

allotment to the divisional cavalry, but if this is done the necessary arrangements for protection must be made.

If an open flank has to be protected, it may be necessary to allot anti-tank artillery to flank guards or to the troops carrying out the flank protection. When allotted for this duty full use should be made of its mobility and wide arc of fire. Guns should be used to cover road blocks only in cases where the block or the crossing on which the obstacle is placed is of sufficient importance to warrant it. When employed on this duty the anti-tank gun needs protection by infantry as in all other forms of defence.

ii. In withdrawal, the main role of the anti-tank artillery is the defence of successive rear guard positions. In a night withdrawal the danger of a follow up by enemy tanks is greatly reduced. Anti-tank guns can therefore be withdrawn early and sent back to the next position. If the withdrawal is being carried out by day, and if there is danger of attack by enemy tanks, the rear guard must be strong in anti-tank artillery. Guns should be available to provide defence of a future position before the present one is abandoned and will be required on each position till the last. Guns may also be required to form intermediate anti-tank lines through which other troops can pass. These lines should whenever possible be tank obstacles as then only the crossings need be covered.

In any withdrawal local commanders alone can judge the correct time for withdrawal and anti-tank sub-units will therefore be placed under the orders of unit commanders for this purpose. Anti-tank guns will withdraw to a troop, battery, or regimental rendezvous, where fresh orders can be given to them.

When the divisional cavalry is covering a withdrawal it may be necessary to allot anti-tank units to it.

7. COMMUNICATIONS

Once the regiment has been deployed the anti-tank regimental commander can no longer exercise control, except of his reserve. The main use of his wireless sets will be to transmit information supplementary to that passed back by other units and other means. It may therefore be sound to establish observation posts with wireless communication and it will be advantageous if such posts can be near selected battery or troop headquarters. No definite system however, can be laid down and the commander must use his wireless sets as he thinks fit.

APPENDIX "A"

ORGANIZATION OF AN ANTI-TANK REGIMENT, ROYAL ARTILLERY

REGIMENT {
 Lieut-Colonel
 Major
 Adjutant
 Subaltern
 Quartermaster

