

SECOND EDITION

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5/20/43 Montgomery of Alamein
EIGHTH ARMY

Some Notes on

**HIGH COMMAND
IN WAR**

This pamphlet must **NOT** fall into enemy hands. Officers in possession of a copy will be responsible for its safe custody

ITALY,
September, 1943

High Command In War

INTRODUCTION

1. In January, 1943, I issued the first edition of "Some Notes on High Command in War", after we had captured TRIFOLI. Since that date the Eighth Army has had much fighting, including:—

The battle of MEDEMIN.

The battle of MARETH.

The battle of the WADI AKARIT.

The battles about SFAX and SOUSSE.

The battle of ENFIDAVILLE.

The invasion of SICILY.

The battles round Mt. ETNA.

The invasion of ITALY across the Straits of MESSINA and landing on the mainland of the continent of Europe.

2. It has been my great privilege to command the Eighth Army during all the fighting it has done since August, 1942, up to the present time—September, 1943.

During this period we have fought in all types of country; in the wide open spaces of the African desert; in very close and enclosed country where movement off the roads is possible only for infantry on foot; in terraced vineyards; in rocky mountainous country where only mule transport can move; in lava belts; on the slopes of a volcanic mountain; and in areas where extensive enemy demolitions created bridging problems of the first magnitude.

We have crossed the seas and attacked the enemy in his own country, and have fought him on the mainland of the continent of EUROPE.

3. During this period of hard and successful fighting we have all learnt an immense amount. Every type of offensive and defensive operation has been experienced—except withdrawal. I feel that the first edition of these Notes now requires to be re-written; this second edition embodies the experience of the past 12 months.

4. I do not expect for a moment that all senior commanders will agree with what I say. But if this small pamphlet should be of assistance even to one or two officers in the stress and strain of high command in the modern battle, it will have been worth the writing.

5. In the arrangement and general sequence of subjects dealt with, I have begun with two subjects which are of paramount importance.

These are:—

- (a) Use of air power.
- (b) Administration.

These two have such a decisive bearing on war in general, and on battle in particular, that it is vital to understand them; without such an understanding no success can be achieved.

I have also added at the end a section dealing with the artillery arm. The proper use of this arm plays a very large part in the winning of battles; every commander must understand how to use his artillery.

6. I must add that the pamphlet has no official significance. It represents my own views, based on my own practical experience in high command during months of hard fighting.

It is written for the General Officers of the Eighth Army.

B. H. Montgomery.

General,
Eighth Army.

ITALY,
September, 1943.

USE OF AIR POWER

1. Any officer who aspires to hold high command in war must understand clearly certain principles regarding the use of air power.

The first and basic principle is that you must win the air battle before you embark on the land, or sea, or battle.

2. So far as the army is concerned, air forces can be divided into the following classifications:—

- (a) Strategic air forces.
- (b) Tactical air forces.
- (c) Forces allotted specifically for the support of an army.

3. The greatest asset of air power is its flexibility, and this enables it to be switched quickly from one objective to another in the theatre of operations. So long as this is realised, then the *whole weight* of the available air power can be used in selected areas in turn; this concentrated use of the air striking force is a battle-winning factor of the first importance.

In this connection, army formation commanders must realise that, on occasions, their own local requests may be over-ridden by more important strategic requirements. The distribution of air resources will be constantly under review by the higher joint command.

4. It follows that control of the available air power must be centralised, and command must be exercised through R.A.F. channels.

Nothing could be more fatal to successful results than to dissipate the air resources into small packets placed under command of army formation commanders, with each packet working on its own plan. The soldier must not expect, or wish, to exercise direct command over air striking forces.

5. The commander of an army in the field should have an Air H.Q. with him, which will have direct control, and command, of such squadrons as may be allotted for operations in support of his army (see para. 2 above).

Such air resources will be in support of his army, and not under his command.

6. If this flexibility of air power is destroyed, or is negated in any way, then the successful outcome of the battle becomes endangered; and this will happen if the soldier attempts to exercise direct command over air forces supporting the army. Such decentralisation of command within the army, with resulting dispersion of air effort, is in fact quite unnecessary; we have now evolved, and it exists in Eighth Army, a system which enables the army to obtain the fullest air support whenever and wherever necessary.

All that is required is that the two staffs, army and air, should work together at the same H.Q. in complete harmony, and with complete mutual understanding and confidence.

7. In order to obtain this harmony and mutual confidence it is the duty of the army and R.A.F. commanders and their staffs to learn each other's problems and understand the limitations of each other's service. This should include:—

- (a) The correct tactical employment of each type of aircraft, e.g., fighter, fighter-bomber, light and medium bomber.
- (b) The information required by the R.A.F. to enable the target to be attacked successfully:—
 - (i) Object to be obtained.
 - (ii) The time factor.
 - (iii) Description of the target.
 - (iv) Location of the target.

N.B.—(i) to (iii) above will affect the type of bomb employed.

The machinery must be such that this information can be collated and presented in the shortest possible time.

8. In order to produce the maximum support, air forces must be provided with adequate airfields. It is the duty therefore of the Army Commander to ensure that their early provision is catered for in his plans; he must also ensure that adequate R.E. and Signal resources are allocated to this end.

The army commander must also understand that, having obtained airfields, the R.A.F. cannot operate efficiently until adequate communications are installed; this takes time.

The importance of the Army and R.A.F. planning together from the start is therefore obvious.

ADMINISTRATION

9. A commander must ensure that his administrative arrangements in rear are commensurate with what he intends to do in front. A force which outstrips its maintenance may find itself in a highly precarious condition.

While this has always been true, it is more important than ever in modern warfare. When rations and forage run short, men and horses could still struggle on and fight effectively. When lorries and tanks run short of petrol they stop altogether and the force which they compose is at the mercy of its enemy.

10. It is in the earliest stages of choosing and formulating his plan that the commander must give particular attention to the administrative aspects of alternative courses of action. This early consideration of the administrative problem is the more important because administrative plans have to be laid a long time in advance. Shipping, in particular, takes time to assemble and load, and cannot be arranged at the last hour.

Later in the planning stage and during the battle itself, the commander will be fully engaged by his tactical problems. He must leave the execution of the administrative plan to his staff, but he should assure himself from time to time that things are going smoothly.

11. Modern conditions have produced certain new factors which render the administrative problem more intricate, and necessitate certain modifications in a procedure which has hitherto been regarded as standard. The chief of these factors are the speed of advance of a mechanised army, the increased vulnerability of lines of communication to attack by air or armoured vehicles, and the vast organisation required for recovery and repair.

In broad terms, the previously accepted system of maintaining an army was that its requirements were delivered daily by pack train, or similar means, to a Railhead or other forward delivery point. Apart from the reserves at the base and advance bases, only very small balancing reserves were held in the forward area. The size of a pack train required for a Division was fairly constant. The ammunition demand only, which was met by separate trains, varied from day to day. The contents of the pack train were regulated by demands placed through Service channels.

Today the requirements of a division vary very greatly with the circumstances of its employment. Its petrol requirements, for example, would be very small when it is in reserve, very large indeed during a rapid advance.

These factors have produced two changes; first, the need for holding certain reserves well forward; secondly, the importance of close control and co-ordination by the staff, as opposed to the Services, of the maintenance arrangements.

12. The necessity for these changes was first brought out in desert warfare. Over a desert L. of C., stretching for some hundreds of miles, it proved impossible to communicate orders for the daily pack with sufficient accuracy and sufficiently in advance. Nor could reliance be placed upon the punctual arrival of convoys over country subject to enemy incursions and to vagaries of the weather. It also became essential to introduce means whereby the staff could control all the administrative installations upon which its formation was dependent.

Out of this was evolved the Field Maintenance Centre, the essence of which is that it is a place where reserves are held to compensate for interruption in the chain of supply and for the inevitable inaccuracy of demands placed some time in advance; and secondly, it is an organisation administered and co-ordinated by one H.Q. which is in direct touch with the formation staff.

During the campaigns in TUNISIA, SICILY and ITALY, where conditions were quite different to those in the desert, it became apparent that the technique evolved in the desert was sound in close country also.

The Field Maintenance Centre, as the focus of all the administrative activities of the formation, proved its value in close country as it had done in the desert.

Field Maintenance Centres may be organised on a scale of one to each division, or several divisions may be maintained from one F.M.C.; but in all cases the F.M.C. is essentially a corps installation and is controlled by the administrative staff of Corps H.Q.

13. While recognising the necessity for holding reserves forward at the F.M.C., and also at the forward railroad or port from which the F.M.Cs. are supplied, it is essential to remember that in fluid warfare a F.M.C. is not a secure place, and the port or railroad behind it may also not be secure. For this reason these forward reserves must be held to a minimum. Excessive stocks are not only wasteful of

administrative resources; they may be a positive danger if they fall into enemy hands; they may present him with the only means with which he can make an effective counter stroke.

14. In administration, there is an ever-present temptation to provide for everything and to insure against every risk. This can easily lead to piling up of administrative staffs, administrative units, and of large reserves, all of which in the early stages of an operation can be provided only at the expense of men and weapons with which the battle itself is fought. The commander who wishes to strike hard and deep must insist that administrative arrangements are sufficient to support his plan in all essential respects, but no more. Administration in battle must ride in a Ford Utility and not in a Rolls-Royce de Luxe.

15. It has been pointed out that a commander will be largely influenced in the choice of his plan by administrative considerations. The very essentials of his plan, namely its scope, its direction, its timing and the size of the force employed, may be determined by administrative factors.

While a commander can and should have a general grasp of the administrative problems with which he is faced, he cannot attempt to enter into the detailed calculations involved in the analysis of these problems. The answer to an administration problem is not given as a guess, however intelligent, but is largely determined by very careful and involved calculations. Nor will calculations alone produce the final answer. They are the foundations on which the administrative staff, with their special knowledge and experience of their jobs, build their deductions.

All this means that a commander is very much in the hands of his chief administrative staff officer; far more so than he is on the operational side. He can hope to have almost as good a grasp of the details of the operational plan as his Chief of Staff. He cannot expect to have the same intimate knowledge of the administrative plan.

16. It is sometimes thought that the good administrative staff officer is one who always keeps plenty in hand, in other words, who over-insures. This is not good administration and can result only in cramping the commander in his operations. In making his choice of a chief administrative staff officer, the commander must therefore choose the man who can calculate his risks in the light of the probable course of the battle. This demands a man who not only possesses

administrative knowledge and experience, but who also is a good soldier.

Having provided himself with an administrative staff officer whom he can trust not to over-insure, the commander must keep to his side of the bargain. He must keep within the limits agreed to between himself and his "Q" staff, or he will incur the risk of administration dislocation. There are occasions when he should deliberately take such a risk, but there are no occasions on which the risk and its potential consequences should be ignored.

MORALE

17. A commander must pay constant attention to the morale of his army.

The surest way to get a high morale is to instil confidence; if the troops have complete confidence in their army commander, then all is well since they know that he will see to everything.

Above all, any operations staged must have a good and reasonable chance of success; the scope of such operations must be limited accordingly; there must be no failures.

18. A higher commander cannot often speak to his troops personally. He can, and should, speak to officers collectively whenever suitable opportunities exist.

Though a higher commander cannot often speak personally to his troops, he can keep in touch and get his personality across by means of personal messages. Before any big operation, and at other times such as Christmas, a personal and inspiring message from the army commander will be of great value; such messages must be drafted very carefully; they must be exactly right; they must not be too frequent but should be kept for very special occasions.

19. New and untried troops must be introduced to battle carefully and gradually, with no failures in the initial ventures.

A start should be made with small raids, then big-scale raids, leading up gradually to unit and brigade operations. Great and lasting harm can be done to morale by launching new units into operations for which they are not ready or trained, and which are therefore quite likely to end in failure.

When new units and formations are introduced to battle there must be no failures.

THE COMMANDER

20. One of the first responsibilities of any commander is to create what I would call "atmosphere," and in that atmosphere his staff, his subordinate commanders and his troops will live, and work, and fight.

His army must know what he wants; it must know the basic fundamentals of his policy; it must be given firm guidance and a clear "lead." Inspiration and guidance must come from above and must permeate throughout the army.

Once this is done there is never any difficulty, since all concerned will go ahead on the lines laid down; the whole army will thus acquire balance and cohesion, and the results on the day of battle will be very apparent.

21. Generally speaking it may be said that there are two things to be done:—

First—To create the fighting machine, and to forge the weapon to his liking.

Second—To create the H.Q. organisation, or set-up, that will enable the weapon to be wielded properly and to develop its full power rapidly.

22. Subordinate commanders must be chosen carefully; in war it is "the man" that matters.

Commanders in all grades must have qualities of leadership, they must have initiative, and they must have the "drive" to get things done; they must have that character and ability which will inspire confidence in their subordinates.

Above all, they must have that moral courage, that resolution, and that determination which will enable them to stand firm when the issue hangs in the balance.

Probably one of the greatest assets a commander can have is the ability to radiate confidence in the plan and operations, when inwardly he is not too sure about the outcome.

A higher commander must, therefore, be a good judge of men, and be able to have the right man in the right place at the right time.

23. A higher commander must watch carefully his own morale. The battle is in effect a contest between two wills, his own and that of the enemy commander. If his heart begins to fail him when the issue hangs in the balance, then the enemy commander will probably win.

24. It is absolutely vital that a higher commander should keep himself from becoming immersed in details.

He must spend a great deal of time in quiet thought and reflection, in thinking out the major problems, in thinking how he will defeat his enemy.

If he gets involved in details he cannot do this; he will lose sight of the essentials that really matter; he will be led off on side issues that will have little influence on the battle; and he will fail to be that solid rock on which his staff must stand.

25. No officer whose daily life is spent in considering details, or who has not time for quiet thought and reflection, can make a sound plan of battle on a high level or conduct large-scale operations efficiently. It is for this reason that the plan must always be made by the commander and NOT by his staff.

26. The wise commander will see very few papers or letters; he will refuse to sit up late at night conducting the business of his army; he will be well advised to withdraw to his tent or caravan after dinner at night and have time for quiet thought and reflection.

It is vital that he should keep mentally fresh.

THE STAFF

27. A higher commander must work through a Chief of Staff; only in this way will he be able to keep himself free from constant interruptions, and have time to think out the real problems.

On no account must he become involved in details; these are the province of his staff.

28. It follows that the Chief of Staff must be a first-class officer, who will have the confidence of the whole staff and will be able to handle and co-ordinate the staff work of the headquarters. One of his chief responsibilities will be to see that the members of the staff work in complete harmony with their opposite numbers on the staff of the air H.Q.

29. Heads of branches and departments should have the right of direct access to the army commander, and he should from time to time send for them and obtain a first-hand account of their activities.

But all their minor problems should be handled by the Chief of Staff.

The Chief of Staff must hold a staff conference every morning, which will be attended by the heads of all branches and departments at the headquarters.

30. A commander must never be far removed from his senior administrative staff officer. It is vital for him to realise that his administration in rear must be on a scale commensurate with what he wants to achieve in front; he must also realise, and very clearly, that if this is not the case he will very probably fail.

31. A higher commander sees very little of the more junior members of his staff, and possibly they seldom see him. Therefore, he should, at certain intervals, assemble his whole staff and address them. On such occasions he can get across to them his views on various matters, explain to them certain aspects of the methods he used in this or that battle, and generally keep them in touch with his ideas and establish confidence.

Such talks will be of great value and will help towards ensuring that the commander's ideas permeate throughout the army.

METHOD OF EXERCISING COMMAND

32. A commander must train his staff, and his subordinate commanders, to work and act on verbal orders or instructions.

There is far too much paper in circulation in the army as a whole; no commander can have time to read all this paper and also do his job properly.

Much of the paper in circulation is not read; much of it is not worth reading.

33. All orders for operations which are in progress or contemplated should be given verbally by the army commander to his corps commanders or other generals under his direct command. To confirm these orders in writing is quite unnecessary; commanders who cannot be trusted to act on clear and concise verbal orders are useless. All the operations carried out by Eighth Army are initiated on verbal orders given by me to my corps commanders, and these are never confirmed in writing.

In a set-piece attack involving careful co-ordination, it is sometimes advisable to issue the army plan in writing down to divisional commanders; but once this has been done and the operation has started, all further orders should be verbal.

34. The practice of higher commanders issuing detailed training instructions, and forwarding a large number of copies for circulation down to a low level, is greatly to be deprecated. It breaks the chain of command, cramps initiative, and is unsound in every way.

If the higher commander wishes to give some instructions regarding training to his subordinate generals, he should do so verbally. If this is not possible, the instructions may have to be written; in this case only one copy is required by the subordinate commander, and he will take whatever action he considers suitable, and will take it in his own way.

Higher commanders should never want to issue detailed instructions on training; they should concentrate on ensuring that a clear doctrine of war exists. The best training instruction is one which indicates how the battle will be fought; subordinate commanders will then adjust their training accordingly.

35. A higher commander must know in what way to give verbal orders to his various subordinates; each may require different treatment, and some will react differently from others; all this must be known to the higher commander.

Eventually a mutual confidence will grow up between the commander and his staff and between him and his subordinate generals; once this has been achieved there will never be any difficulties or misunderstandings.

THE STAGE MANAGEMENT OF BATTLE

36. To be successful in battle the fighting machine must be so set in motion that it can develop its maximum power rapidly, and the troops must then be launched into battle properly.

It follows that what may be called "the stage management of the battle" must be first-class.

37. It is stated in para. 25 that the plan of battle must be made by the commander and NOT by his staff. I consider that this statement admits of no argument.

38. When making a plan it should be remembered that the Axis generals are at their best if they are allowed to dictate the battle; they are not so good if they are forced to react to your movements and thrusts.

Therefore the plan must be based on the following four principles:—

(a) Surprise is essential. Strategic surprise may often be difficult, if not impossible, to obtain; but tactical

surprise is always possible and must always be given a foremost place in the planning.

(b) The enemy must be forced to dance to your tune all the time. This means that the commander must foresee his battle; he must decide in his own mind, *and before the battle starts*, how he wants the operations to be developed; he must then use the military effort at his disposal to force the battle to swing the way he wants.

(c) As the battle develops the enemy will try to throw you off your balance by counter-thrusts; this must never be allowed. Throughout the battle area the whole force must be so well balanced and poised, and the general layout of dispositions must be so good, that there will never be any need to have to react to enemy thrusts.

(d) The initiative, once gained, must never be lost; only in this way will the enemy be made to dance to your tune and to react to your thrusts.

If you lose the initiative against a good enemy you will very soon be made to react to his thrusts; once this happens you may well lose the battle.

It is very easy in large-scale operations to lose the initiative, and great energy and drive are required to prevent this from happening.

A commander must understand very clearly that without the initiative he cannot win.

39. Having made a sound and simple plan, the following points are then highly important:—

(a) The essentials of the plan must be known right down through the chain of command, and finally down to the rank and file. Every single soldier must know, before he goes into battle, how the little battle he is fighting fits in to the larger picture, and how the success of his fighting will influence the battle as a whole.

A careful system is necessary to ensure that secrecy is not compromised; commanders in their several grades, and finally the rank and file, must be brought into the picture at the right moments and not so late that they cannot do their jobs properly.

(b) All commanders must have complete confidence in the plan.

(c) The troops must be brought to a state of wild enthusiasm. They must enter the fight with the light of battle in their eyes, and definitely wanting to kill the enemy. In achieving this end it is the spoken word that counts, from the commander to his troops; the spoken word is far more effective than any written matter.

40. Skill in "grouping" plays a very large part in successful battle fighting.

In his plan of battle the higher commander must give careful thought to the correct grouping of his divisions and of his armour. He cannot decide on this grouping until the problem has emerged and he has decided how he will solve it; he must then so group his divisions until the corps are suitably composed for their respective tasks. As the battle proceeds, he may frequently re-group.

A corps H.Q. must be able to handle armoured divisions, or infantry divisions, or any combination of the two types. You cannot fight successfully with corps that can handle only one type of division, since this limits your freedom to group in accordance with the problem.

It is, therefore, unsound to use the nomenclature "armoured corps" or "infantry corps". There is only one type of corps and it must be able to handle any type of formation, armoured or unarmoured.

Divisions must fight as divisions, with definite tasks and clear-cut objectives.

The surest road to victory is to develop the full fighting power of divisions on corps plans, the whole being directed so as to force the battle to swing in the way required by the army plan. No good results will be obtained by splitting up divisions; such action affects morale adversely.

Nor can a division conduct effective offensive operations against even moderate opposition in good delaying country if strung out on a wide front, since it cannot then develop its full fighting power.

41. Having made his plan, there will be much detailed work to be done before the operation is launched. This detailed work is the province of the staff.

The higher commander himself should stand right back and have time to think; his attention should be directed to ensuring that the basic foundations and corner stones of the plan are not broken down by the mass of detail that will occupy the attention of the staff.

He must keep in close touch with his subordinate commanders during this period, and discuss their problems verbally and nothing need be written.

42. Before the battle begins the army commander should assemble all commanders down to the lieutenant-colonel level, and should explain to them the problem, his intention, and how he is going to make it go the way he wants.

This practice is well worth while. If every unit commander in the army knows what is wanted, then all will fight intelligently and with cohesion.

Furthermore, unit commanders will pass on the relevant information to the regimental officers and men, and the whole army goes into battle knowing what is wanted and how it is to be achieved.

The resulting effect will be terrific, and nothing will be able to stand against it.

And when the troops see that the battle has gone exactly as they were told it would go, the increase in morale and the confidence in the higher command will be immense—and this is a pearl of very great price.

43. Once the battle has started, everything that passes between the higher commander and his subordinate generals should be verbal. If this is not always possible, because there is no telephone or because distances are too great for a personal visit, then written messages are too great for a as the commander has trained his subordinates to work on his verbal orders, and mutual confidence in dealing in this way has been established, all such messages should be drafted by the commander himself so as to ensure that they will convey to the recipient exactly what he wishes.

The wise higher commander will keep a secure hold over the basic operational aspect of the battle, and will not let it be taken away from him by his staff (see para. 25).

44. The exact method that a commander will adopt in order to set about his enemy will depend on varying circumstances. During months of hard fighting, beginning at

ALAMEIN and continuing on through CYRENAICA, TRIPOLITANIA, TUNISIA and across the seas to SICILY and ITALY, I have found that no two problems are ever the same. A commander must keep an open mind, consider the conditions of the problem very carefully, and decide on a method suitable to the occasion.

45. A useful method is to drive the enemy back on to his main positions, using whatever force is necessary for that purpose. The enemy is then picketed with light forces, the main bodies being held well back. The ground is then studied, the problem considered carefully, and a decision reached as to the particular technique that will be adopted in that battle.

The main bodies in rear are then trained and rehearsed in that technique, and all the details of it are gone into and checked up. Meanwhile, the battle is being built up in front by means of intelligence sections, forward bodies, pistol guns, and so on.

Finally, the main bodies are moved forward, and the blow is delivered after whatever time-lag is essential after close contact is gained.

During the pauses while the land battle is being built up, the Air Forces must be very active; they should interfere with enemy movement, destroy communications, disrupt his supply organisation, and generally carry on the battle while the Army is preparing to deliver its main blow.

46. In mobile operations where it is necessary to strike hard and deep and to penetrate quickly into the enemy country, divisions should operate on narrow fronts on main axes of advance. If the enemy is widely dispersed in his endeavours to stem the advance, he will not be able to hold these "divisional thrusts".

The time may come when the enemy will recover his balance and will stabilise the battle on some rear position. When this happens two or more thrusts should be inclined towards each other, so as to converge on the vital or key locality in the enemy position; you then fight a corps battle for that key locality, the fire of the artillery of the corps being concentrated and handled by the C.C.R.A.

In close country, objectives for divisional thrusts should be the main centres of road communication. It will generally be found that the possession of these main centres will enable you to put a stranglehold on enemy movement, and thus dominate the operations.

When adopting these tactics, areas between divisional thrusts, i.e., between the main axes of advance, should be ignored initially. Provided divisions operate in depth, and on a one-Brigade front, the flanks of the leading troops have nothing to fear; any enemy who attempt to escape down the lateral roads between the main axes can be dealt with later by reserves.

47. Finally, I would say that the whole essence of modern tactical methods in battle lies in the following factors:—

- Surprise.
- Concentration of effort.
- Co-operation of all arms.
- Control.
- Simplicity.
- Speed of action.

Great energy and determination are essential in order to maintain the tempo of the operations at a high level; the commander who lacks these qualities, and who lacks the "drive" to get things done, will never achieve successful results.

OVERSEAS CAMPAIGNS

48. Any overseas campaign will involve the closest co-operation between the navy, the army, and the air forces.

The navy has got to take the army across the seas, and it requires good beaches for landing; the army when on shore cannot be maintained indefinitely over open beaches, but requires a good port very early; the air forces require good airfields.

But the plan of battle must not be built up solely on the need to acquire quickly good beaches, good ports, and good airfields.

The matter involves the whole question of the conduct of offensive operations in an enemy country with the object of destroying the enemy's armed forces and occupying his territory; the army has got to carry out this task, and no other service can do it.

Therefore, the first need is to decide how you want the operations on land to be developed so that the object can be successfully attained in the simplest and quickest way.

It is then for the navy to say whether the army can be put on shore in such a way that the land battle can be developed in the required manner; it is for the R.A.F. to say whether this will suit the air plan.

And so the plan is built up; some compromise may be necessary, but eventually an agreed plan will emerge.

The beaches, ports, and airfields then become objectives in the general plan of battle.

CO-OPERATION

49. I cannot emphasise too strongly that successful battle operations depend on the *intimate co-operation of all arms*, whether in armoured or unarmoured formations. Tanks alone are never the answer; no one arm, alone and unaided, can do any good in battle.

To get successful results:—

The air forces,

The tank,

The gun,

The anti-tank gun,

The machine-gun,

The infantry,

The Engineers,

have all got to work in the closest co-operation.

COMMAND AND CONTROL

50. In very mobile and fluid operations the normal system of command in depth is quite unsuitable.

The commander who is fighting the battle—the army, the corps, or divisional commander—has got to be able to exercise full control, and to give quick decisions in sufficient time to influence the fast-moving tactical battle. Enemy re-actions to our moves and thrusts will be immediate, and a commander will be able to adjust his dispositions to the situation as it develops only if he is well forward.

Static parts of the battle area, which have a purely holding role, can look after themselves. The commander should move with his more mobile and advanced forces, by whose action he will eventually complete the overthrow of the enemy.

ARTILLERY

51. A higher commander must know how to make the best use of his artillery, as the proper use of this arm is a battle-winning factor of the first importance.

52. Having made his plan, he must consider how it can best be furthered by the use of such reserves of artillery as are at his disposal.

In the more mobile places of battle, particularly in close or mountainous countries which lack roads, it will usually be undesirable to allot to divisions additional artillery; it is unlikely to be required and will certainly add to congestion on roads.

In the more deliberate advance by several divisions, the commander can influence the way in which the battle is to go by his initial allotment of additional artillery. Apart from the plan, relevant factors will be the enemy opposition to be expected, and the nature of the country on each division's axis.

In the deliberate attack to break through determined opposition, one of the chief factors which make for success is the concentration of an adequate amount of artillery to support the attack. In addition to the bulk of the army artillery, it may be necessary to place additional divisional artilleries at the disposal of the corps concerned. A corps plan will then be necessary, all artillery being centralised under the control of the C.C.R.A.

53. The higher commander must ensure that his subordinate commanders understand the value of the centralised control of artillery and the evils of decentralisation for longer than is necessary.

54. Every commander has on his staff a senior artillery officer as a technical adviser. No commander should deal directly with more than one gunner, and a higher commander should make it clear to his artillery adviser that he is equally concerned with all types of artillery—field, medium, heavy, anti-tank, anti-aircraft and, when necessary, coast defence artillery. Today all artillery brigadiers in the field army must understand thoroughly the training and employment of anti-aircraft artillery.

55. Under all conditions, and particularly when the enemy has some degree of air superiority, the proper distribution of anti-aircraft artillery will be of great importance. There will always be conflicting interests not only in the army but

amongst the three fighting services. Any attempt to control anti-aircraft resources by an inter-service committee can only lead to undesirable compromises, and control should be vested in the senior gunner. Conflicting interests will often make it necessary for the higher commander himself to deal with this subject. The co-ordination of the anti-aircraft defence of important centres of communication, such as ports within the army area, with the activities of R.A.F. night fighters and the R.A.F. "filter room" will always be of importance, as will be co-ordination with any naval anti-aircraft resources available.

56. To get the fullest value from artillery, the gunner must be "in" on the plan from the very beginning, and a commander must discuss with him how the battle is likely to develop.

The gunner's duty is then:—

- (a) To advise on the effect which a proposed course of action will have on the ability of the artillery to provide useful support.
- (b) To estimate the time required for preparation by the artillery.
- (c) To state what better support could be obtained by varying the plan; or if more time for preparation was made available.
- (d) To suggest the best distribution of artillery resources before and during the proposed operation.
- (e) To recommend how the artillery can best be used to further deception.

57. Problems which must never be overlooked by a commander or his artillery adviser are estimates of the daily expenditure of artillery ammunition during a proposed operation, the accumulation of the necessary reserves of ammunition of all types, the proper location of such reserves and, if necessary, the restriction of daily ammunition expenditure to conserve or accumulate reserves.

58. Time and transport facilities will rarely allow of sufficient ammunition to cover every contingency being brought forward. Artillery advisers must therefore have a detailed knowledge of the average rates of expenditure for all natures of shell during various types of recent operations. Without this information accurate estimates of ammunition expenditure are impossible, and unnecessarily large stocks of one type will inevitably result in the stocks of other types being lower than need be. If risks are to be taken they must be properly balanced.

59. Necessary as it is for artillery to train with infantry and tanks, commanders must remember that the first consideration is that regiments should be thoroughly trained technically. Such training can only be efficiently carried out under a gunner brigadier. Furthermore, since continuity of doctrine and training are important, the permanent order of battle of regiments under command of Cs.R.A., Cs.A.G.R.A. or Cs.C.R.A. should not be changed unnecessarily, and regiments temporarily detached should always revert as far as possible to the command of the same formation and in consequence the same brigadier.

RISKS IN BATTLE

60. It will be exceptional to win a battle without taking certain risks. It requires a nice judgment to decide what risks are legitimate and justifiable, and what risks are definitely not so.

A commander who is not prepared to take a chance, and who tries to play for safety on all occasions, will never reap the full fruits of victory.

FINAL ADVICE

61. My final advice to any officer who may be called on to exercise high command in war is as follows:—

- (a) Have a good Chief of Staff.
- (b) Go for simplicity in everything.
- (c) Cut out all paper and train your subordinates to work on verbal instructions and orders.
- (d) Keep a firm grip on the basic fundamentals—the things that really matter.
- (e) Avoid being involved in details; leave them to your staff.
- (f) Study the factor of morale; it is the big thing in war and without a high morale you can achieve nothing.
- (g) When the issue hangs in the balance radiate confidence in the plan and in the operations, even if inwardly you feel not too certain of the outcome.
- (h) Never worry.
- (i) Never belly-ache.
- (j) Keep fit and fresh, physically and mentally. You will never win battles if you become mentally tired, or get run down in health.

B. L. M.